

PAYMENT SYSTEMS REPORT

2006



JUNE 2007



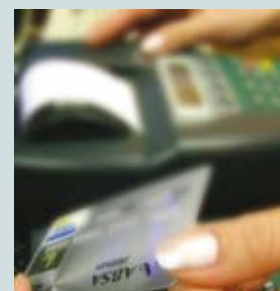
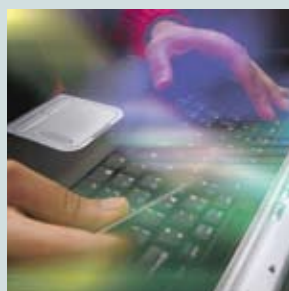
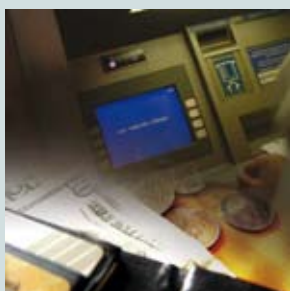
SUMMARY

Significant Statistics of 2006

| | |
|--|----------------------|
| Population | 62.83 million |
| Gross Domestic Product (Current Price) | 7,813.1 Billion Baht |

Technological Infrastructure

- Number of fixed - line telephone subscribers per 100 inhabitants: 11
- Number of mobile telephone subscribers per 100 inhabitants: 66



Payment Statistics

| | |
|--|---------------------------|
| • Number of Thai commercial banks | 17 with 4,701 branches |
| • Number of foreign commercial banks branches | 17 branches |
| • Number of specialized financial Institutions (bank only) | 6 with 1,714 branches |
| • Number of post office branches | 1,158 branches |
| • Number of Automated Teller Machines (ATM) | 21,988 machines |
| • Number of EFTPOS machines | 208,942 machines |
| • Number of credit cards | 10,900,566 cards |
| • Number of debit cards | 3,952,784 cards |
| • Number of ATM cards | 30,845,358 cards |
| • Currency in circulation per capita as of 31 December 2006 | THB 10,389 |
| • Number of cheque usage per capita ¹ | 2 items per year |
| • Monthly average value of credit card payments ² | THB 3,463 per credit card |
| • Monthly average value of ATM card on cash withdrawals | THB 7,724 per ATM card |
| • Monthly average value of debit card payment ³ | THB 73 per debit card |
| • Monthly average value of debit card on cash withdrawals | THB 7,329 per debit card |

¹ Average cheque usage per capita includes inter-bank cheques.

² Only the use of domestically issued credit cards purchasing products and services through EFTPOS in or out of Thailand.

³ Only the use of domestically issued debit cards purchasing products and services through EFTPOS in or out of Thailand.

Message from the Chairman of Payment Systems Committee (PSC)

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The previous year was a gratifying one for the Thai payment systems. Our high-valued payment system — BAHTNET was assessed by a specialist appointed by the International Monetary Funds (IMF) and the World Bank (WB) under the Financial Sector Assessment Program (FSAP) and was found to fulfill almost all of the Core Principles for Systemically Important Payment Systems (CPSIPs).

Rapid changes in the economy, society and technologies inevitably affected the Thai payment systems necessitating a reorganisation of the Thai Payment Systems Committee. The composition of the PSC was revamped to accommodate representatives from key stakeholders in our payment systems to facilitate a more vigorous collaborative environment for service providers, users, academia and regulators with the aim to establish key policies and strategies to address various key concerns. First, It is imperative to reduce the current high costs of payment services due to the high dependency on cash and cheque usage for consumers, corporations and the public sector. Secondly, there is an urgent need to integrate various fragmented payment systems throughout the country to enhance the overall efficiency. Thirdly, Thailand must be vigilant in the establishment of pertinent cross-border payment systems linkages to ensure its viability in the international arenas of trades and investment. Underpinning all of the above is the need for adequate regulatory measures to ensure safe and sound payment services including those from non-bank service providers.

Going forward, to address key concerns in a highly dynamic environment, the PSC mandated the drafting of the *Payment Systems Roadmap 2010* to be completed in mid 2007 to provide a strategic direction for the Thai payment systems up to the year 2010,

One ongoing agenda engaged by the PSC is to steer the Thai society away from cash and cheque-based systems to electronic ones so as to increase the overall efficiency of the country. Although we plan for a decline in cheque usage, cheque will still be a dominant means of payment for businesses and the reduction in processing costs of cheques is still very relevant. We are planning to implement a new cheque clearing processing to allow the use of digital images of cheques and to truncate the movement of physical cheques early in the collection stream.

The successes so far would not have been possible without the collaborative efforts of numerous stakeholders from public and private sectors. As the Chairman of PSC, I would like to thank them all and look forward to their continuing support in driving for ever improving payment systems.



Mrs. Tarisa Watanagase

Chairwoman of Payment Systems Committee

May 2007

Payment Systems Committee

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Chairwoman

Dr. Tarisa Watanagase

Governor

PSC's Responsibilities

(As to the order Tor. 30/2007 concerning the appointment of Payment Systems Committee (PSC) dated 23rd January 2007)

1. Formulate national payment policies and directions to ensure safe and efficient payment systems, lessen payment costs and support trade and business transactions which will in turn encourage national potentiality as to competitions which cover the followings:-

- Controlling of associated risks in payment systems.
- Having common standards, both in security and efficiency including technology requirements, rules and procedures.
- Encouraging healthy competition among payment service providers for the benefits of users in terms of prices and services which are in line with their needs.
- Fostering cooperation among major stakeholders in payment industry for efficiency and safe payment systems.

2. To have an annual report which summarize the work of the committee that is transparent and of good standard.

ViceChairman



Vice Chairman

1. Mrs. Sawangchit Chaiyawat
Deputy Governor
Operations



2. Dr. Bandid Nijathaworn
Deputy Governor
Monetary Stability

Committee

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3. Mr. Apisak Tantivorawong
Chairman, Thai Bankers' Association



4. Mr. Pramon Sutivong
Chairman, Board of Trade of Thailand



5. Dr. Somchai Jitsuchon
Research Director for Macroeconomic
Development and Income Research
Institute Citibank, N.A.



6. Dr. Pansak Siriruchatapong
Director, National Electronics and
Computer Technology Center

Secretary



7. Dr. Chim Tantiyaswasdikul
Assistant Governor
Information Technology Group



Payments Policy in 2006

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Payment Systems Committee (PSC) is responsible for formulating national payment policies and directions to ensure safe and efficient payment systems, lessen payment costs and support trade and business transactions which will in turn enhance national potentiality to compete in international level.

Significant Policies Approved by PSC in 2006 can be recapitulated as follows:

● Supportive Approaches as to the Use of Electronic Payment as a Replacement for Cash and Cheques

PSC has approved the supportive approaches for the use of electronic payment instead of cash and cheques. There are 4 types of categorized strategies as indicated below :

- Strategy as to an acceptable fee structure
- Strategy as to public relations
- Strategy as to amendment of impediment laws and regulations
- Strategy as to monitoring and assessment

The supportive approaches will be separately conducted in accordance with target groups. The details of which are stated as follows:

- (1) Seven groups conducted in 2006
 - Financial Markets Transaction
 - Public Transportation
 - Education
 - Retails
 - Insurance
 - Government
 - Media
- (2) Six groups to be conducted in the future
 - Leasing
 - Public Utilities
 - Health Care
 - Manufacturing

- Agriculture
- Cash Management

- **ITMX Service Provider Overseeing Approach**

National ITMX Co., Ltd. (NITMX), held its shares by Thai commercial banks, was established in July 2005 in order to develop ITMX system so that it can be subsequently employed as an infrastructure of payment systems and inter-bank funds transfer to support various e-commerce transactions. In 2006, as the Draft Royal Decree Regulating of Electronic Payment Services B.E.... which empowered the Bank of Thailand (BOT) to oversee electronic payment services had not been promulgated, PSC had a resolution to bring about a memorandum and made it cosignatory between the BOT and NITMX so that the BOT was enable to oversee and monitor the operations of NITMX in an effective and safe approach with an appropriate risk control. The focal point of the mentioned memorandum was in line with those stated in the Draft Royal Decree.

- **Approach as to Operations of the Cheque Truncation Project**

The operation of Cheque Truncation Project was assigned by PSC to the Sub-Committee on National Payment Cooperation (SNPC). Primarily, the operation framework was limited to the operations carried on in Bangkok and its boundaries in 2008 and was expected to be nationwide in 2010. SNPC presented its operation approach to PSC meeting marked 5/2006 on 18th October 2006. The important criteria suggested to the meeting were that the system should be able to replace the currently used cheque clearing system; being accepted by member banks; cost of investment is expected to be paid by the member banks and the involved clearing companies should not be ineptly steep. SNPC, for that reason, was assigned by PSC to prepare a comprehensible Cheque Truncation Action Plan for subsequently planning of manpower and locations of clearing centers to PSC.

Message from Chairman of Sub-Committee on National Payment Cooperation

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During the year 2006, Sub-Committee on National Payment Cooperation (SNPC) considered the operative approach and followed up the operations on the national payment to develop and enhance the efficiency of country's payment systems. Besides, we also had a close cooperation with National ITMX Co., Ltd. (NITMX) for the development of the national central payment system. The progress of which can be hereby summarized as follows:

SNPC has studied and prepared a roadmap for Cheque Truncation as a replacement for Electronic Cheque Clearing System (ECS) which has been used for quite a period of time. In doing so, a type of technology called "Image Technology" will be used to capture, store, sort and transfer data as well as cheque image to member banks. These procedures will help enhance the efficiency of services in terms of convenience, speediness and safety. The physical cheques will no longer be changed and transported. This will help reduce the cost borne by the member banks in the long run. This project is expected to be concrete around 2008-2009. Moreover, SNPC had come up with the establishment of a new Code Line of cheque to support increasing number of member banks. It is anticipated that the new code line will be made known during the year 2007.

The volume of retail funds transferred electronically through various bank's facilities such as ATM and bank's counters throughout the country has achieved a very high level of expansion according to an increase of ATM units set up in the communities, workplaces and tourist spots nationwide. Especially, funds transfer through commercial bank branches launched at the end of 2005 has been very well accepted due to its high level of convenience, speediness and safety. This lead to growing number of expansion of this transactions in every trimester, it is an indication of an achievement for national electronic payment policy which includes close collaboration among service providers, public relations and incessant marketing activities.

Additionally, small value cross-border funds transfer which has been launched between Thailand and Malaysia had continuously augmented as

another decent approach to facilitate the bank's retail customers of both countries who travel and trade between the two countries. However, Thailand is still pursuing its prospective plans to connect its communication networks with other countries in ASEAN.

The progress of electronic transaction installation connecting members of the member banks for service provision through NITMX which was established in September 2005 was satisfactory. Two computer centers with elevated level of safety including Business Continuity Management were constructed at Rama III and Chaeng Wattana. The Business Continuity Management is highly reliable and enables business transaction to carry on 24 hours a day. Besides, SNPC has been in cooperation with many companies as to business requirement determination, procurement and bidding of the world leading companies for data processing and communicating devices including the requisite software to support the current and impending payment transaction through safety and information exchange technology. Such process has gradually moved forward as planned. The training held for involved staffs and the launch of User Acceptance Test will take place in the first trimester of 2007.

The fruitful achievement and progress of SNPC originated from constant support of Payment Systems Committee, working group from Payment System Department, Bank of Thailand, executives of member banks, Thai Bankers' Association, Foreign Banks' Association as well as directors and staffs of NITMX who share the invariable aspiration in fostering Thailand's payment systems stand in the forefront and reach an international level.



Mr. Theera Apaiwong
Chairman of Sub-Committee on
National Payment Cooperation
May 2, 2007

Sub-Committee on National Payment Cooperation (SNPC)

1 2



Chairman

Mr. Teera Aphaiwongse

Senior Executive Vice President

Bangkok Bank Public Co., Ltd.

SNPC's Responsibilities

(As to the order no. 1/2002 issued by Payment Systems Committee (PSC) concerning the appointment of Sub-Committee on National Payment Cooperation (SNPC))

1. Establish code of conducts as to payment systems including technical standard which is an underlying structure of payment for an effective and safe use as well as fair competition among parties involved in payment systems.
2. Formulate relevant policies for the following operations:
 - 2.1 Push forward the common use of payment systems to enhance its effectiveness and lessen investment overlap.
 - 2.2 Provide support and make the first move to employ pertinent payment media, technologies and modernized payment services.
 - 2.3 Foster connections among an assortment of payment systems both domestically and internationally.
 - 2.4 Gather data and research pertaining to payments for the benefits of related operating units in both public and private sectors.
3. Consider model and approach leading to an establishment of multiparty organization for service providers carrying on payment services for its effectiveness in being assigned the tasks from Sub-Committee on National Payment Cooperation (SNPC) as stated in 1 and 2.

Sub-Committee



1. Mr. Charamporn Jotikasthira

Executive Vice President

Siam Commercial Bank Public Co., Ltd.



2. Miss Supatra Hiranrats

Executive Vice President

Krung Thai Bank Public Co., Ltd.



3. Mr. Chet Raktakanishta

First Executive Vice President

Bank of Ayudhya Public Co., Ltd.



4. Miss Sriprapa Yimsmith
Financial Market and Retail
Manager, Thailand Post Co., Ltd.



7. Mr. Prasert Wangrattananpranee
First Executive Vice President, Financial
Control Division, Bankthai (Public) Co., Ltd.



5. Mrs. Vira-anong Chiranakhorn Putrakul
Senior Director, Division of Foreign Trade
Payment System, Treasury Service and
Debt Development



8. Mr. Sayan Pariwat
Senior Director, Payment Systems
Department, Bank of Thailand

Honorary Committee



6. Mr. Pairat Nakapa
Senior Vice President,
Finance Department
Government Savings Bank



9. Miss Vilawan Vanadurongvan
Consultant, Bank of
Ayudhya (Public) Co., Ltd.

Sub-committee and Secretary



10. Mr. Pramoth Chaiamphorn
Vice President
Kasikorn Bank (Public) Co., Ltd.



Achievements in 2006

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Sub-Committee on National Payment Cooperation (SNPC) was found on 25th December 2002 by Payment System Committee (PSC). Its first mission was to formulate code of conducts as to payment systems including technical standards which is a payment infrastructures push forward the common uses of payment systems to enhance effectiveness and lessen duplicate investment as well as foster advanced payment systems connections among diverse payment systems both domestically and internationally. The SNPC's structure was adjusted in February 2007 for the superior level of appropriateness, flexibility and promptness with reference to its operations. The SNPC's achievements in 2006 can be precisely revealed as follows:

The Adjustment of Commercial Banks' Payment Fees

SNPC has revised commercial banks' payment fees in two main sections which are the enforcement for the use of new rates of payment services and the sharing of fees charged between banks for SMART Credit and Cheque.

SNPC has declared the use of new rates of fees for the commercial banks' payment channels to stimulate the use of electronic payment and lessen the use of cheques and cash. The details of which are specified below:

- (1) A physical cheque: from 5 baht to 15 baht (3 baht for duty stamp remains unchanged while the service fee is augmented to 12 baht)
- (2) SMART Credit: from 10 baht / not more than 500,000 baht transaction to 12 baht / not more than 100,000 baht transaction; 40 baht / more than 100,000 baht but not more than 500,000 baht transaction; 100 baht / more than 500,000 baht but not more than 2 million baht transaction.
- (3) Inter-provincial cheques (B/C): 0.1% of the amount from 0.2% in the past.

- (4) Online Retail Fund Transfer through ATM: from 35 baht / not more than 30,000 baht transaction to 25 baht / not more than 10,000 baht transaction; 35 baht / more than 10,000 but not more than 30,000 baht transaction.
- (5) Fee for issuing a bank statement: 100 baht from 200 baht in the past.

These new fees are nevertheless the ceiling rates to be charged from the customers by the banks. Each bank still retains the right to accordingly set out its rates whatsoever. The new rates was effective on 6th March 2006 onwards. Only the SMART Credit service was effective on 3rd April 2006.

SNPC has discussed with the member banks on the subject of the fees sharing for the SMART Credit service. The outcome from the said discussion was that the Processing Cost Study between the sending bank and the receiving bank shall be employed to divide fees between the banks.

Infrastructure

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ITMX Development

SNPC has encouraged the formation of National ITMX Co., Ltd. The developer to be responsible for the development of ITMX system was chosen by the company since July 2006. According to this, Bulk Payment and ATM Pool System for retail funds transfer through various channels e.g. internet and mobile telephones are expected to be achieved by 2007.

ORFT Fund transfer Service Extension Through Banks' Counters

- (1) ORFT funds transfer limit increasing through commercial banks' counters.
ORFT funds transfer limit was increased from maximum 50,000 baht with the paid fee of 50-90 baht a transaction to maximum 100,000 baht with the paid fee of 100-120 baht considering the increased amount of transfer (50,001-100,000 baht).
- (2) Service alliance with Thailand Post Co., Ltd. for ORFT funds transfer through counters. The cooperation with Thailand Post Co., Ltd as to ORFT system development was initiated aiming at providing the aforementioned services through post's counters to enable users who do not have accounts with commercial banks to receive money at any post offices.





Cross-border ATM

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Cross-border ATM compliant with ASEAN Pay Program, a developing and supporting program for retail funds transfer in 4 countries in ASEAN - Thailand, Malaysia, Singapore and Indonesia, was developed. The Cross-border ATM was primarily launched between Thailand and Malaysia on 25th September 2006 while the services for Singapore and Indonesia will be operative within 2007.



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1.1. Payment Policy

The Bank of Thailand is currently pursuing the payment system policies in line with 2006 strategic objectives to accomplish a complete payment system. There are 4 strategies as follows:

- (1) Came up with a new role as a payment systems regulator.
- (2) Fostered the decrease of cheque usage and promoted the use of electronic channel.
- (3) Tagged along innovations as to electronic channels and shored up the use of suitable electronic channels.
- (4) Pushed forward the international payment system connection of private companies in ASEAN.

Two key issues emphasized by these strategies were the increased level of efficiency and risk reduction with apprehension concerning the importance of payment system which affects the country's economic system in a way that it has been a meaningful mechanism for economic and financial operations.

In 2006, BOT embarked on the following significant payment system policies.

1.1.1. A Four-Year Payment System Strategic Planning Project (Payment Systems Roadmap 2010)

Subsequent to the BOT's pronouncement on Payment Systems Development Plan 2002-2004 (Payment 2004)⁵ and successful implementation of the plan, both government and private sectors acknowledged the usefulness of the plan and opted for the persistence of the country's payment system development approaches.



⁵ Details of Payment System Development Plan 2002-2004 (Payment 2004) are available at <http://www.bot.or.th/bothomepage/BankAtWork/Payment/payment.htm> under the topic : Payment Systems Report 2003

As a result, BOT got its hands on A Four-Year Payment System Strategic Planning Project (Payment Systems Roadmap 2010) with collaboration of the International Monetary Fund (IMF) for providing specialists on payment systems to participate in this project. Furthermore, BOT assembled the Advisory Committee consisting of service providers both from government and private sector as well as the service users to mull over issues and information in relation to visions and strategies pertaining to the payment systems in order that such particular plan could benefit the country in the highest level and be consistent with the requirements of all involved parties. Assistant Governor responsible for Information Technology Group was the Chairman of the committee.

1.1.2 Role Adapted Project as a Payment Systems Regulator

BOT conducted the study and set out approaches with reference to the role adaptation to be the payment systems regulator. Moreover, BOT also looked forward to the readiness of its operations and staffs to buttress the obligations of the project. The BOT's performance in 2006 were detailed as follows:

- (1) Altered organizational structure to support the new role as a regulator including staffs' training for their operational readiness.
- (2) Revised other countries' payment systems regulations and accordingly adapted to Thailand's appropriate usage as a regulator of service business in electronic payment.
- (3) Delved into the payment systems regulation and conduct an operational plan correspondingly as well as drafted an operational manual.
- (4) Give rise to the draft of the pronouncement together with its concerned criteria to hold up the enforcement of the Draft Royal Decree Regulating of Electronic Payment Services B.E....
- (5) Regulated the 6 licensed non-bank electronic money service providers through the power bestowed upon by ministerial proclamation of the Ministry of Finance as to the business to be



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licensed according to section 5 of the Revolutionary Council's Announcement edition 58th (the electronic money business operation) dated 4th October 2004, including BOT's proclamation on the establishment of criteria, methods and conditions for the electronic cash card business operation.

1.1.3 Operations According to the Plan for the Decrease of Cash and Cheque Usage

For an appropriate and effective use of payment instruments, BOT has explored payment systems transactions based on economic activities of different groups of traders in order to figure out and be aware of the users' behaviors pertaining to the use of payment instruments including problems and impediment of each payment means.

In 2006, BOT not only carried out in-depth interviews on 7 groups of executives but also coordinated with other pertinent organizations for problem-fixing. In 2007, this activity will also be once again conducted on 6 different groups.⁶

1.1.4 BATHNET Liquidity Watch

BOT tested and additionally enhanced liquidity watch fund transfer data to keep up with the requirement for the superior future use. The program for the structure was already installed in March 2006 to be equipped as a tracking device for fund transferring competence and behavior including liquidity sufficiency, its potential for the use of liquidity from various financial sources in BATHNET system, its efficiency in fund transferring and the remaining of liquidity as specified by the resolute criteria.



⁶ For further details, please see Payment Policy 2006 under the topic : Approaches Towards the Support of Electronic Payment Channels as a Replacement for Cash and Cheques Usage.



Moreover, basic data as well as fundamental mock-up structure of BoF-PSS2 program employed for the formulation of Central Bank of Finland's simulation were looked into by BOT en route for exploring and analyzing data for business requirement conduct to find the appropriate liquidity level in BATHNET system.

1.1.5. Central Settlement System Enhancement Project

The central settlement system commenced in 2005 has been attuned by BOT for the elevated level of Multilateral Fund Transfer (MFT) efficiency of payment transactions performed by public and private organizations. Considering the benefits for operations and financial management of the member banks, BOT carried out as follows:

- (1) Formulate the 'Business Requirement' contemplating on the efficiency of the central settlement system; design and develop system to enable the CSS Settlement Agent to submit net clearing position against counter-party. Such system enables the member banks to look over more detailed MFT data, compared to the former operation of which only net amount could be inspected. The said system was anticipated to be accomplished in October 2007.
- (2) Discuss with a 'Settlement Bank' who is responsible for settlements in each period of settlement such as for credit cards so that it can be carried out through the central settlement system to reduce settlement risks among members.

1 Important Developments of Domestic Payment Systems

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1.2 Infrastructure

1.2.1 ITMX (Interbank Transaction Management and Exchange)

Subsequent to the previous year establishment of National ITMX Co., Ltd by The Thai Bankers' Association together with the appointment of representatives as company's directors by Thai commercial banks, the Directors have selected the company's operating staffs including another company who will be working on ITMX system development. The 'Bulk Payment' will be first developed. It is anticipated that the service can be launched in the second quarter of 2007. The following section which will be developed is the 'Single Transaction' which consists of depositing, withdrawing and transferring through several channels. The latter service is expected to be completely geared up within the third quarter of 2007.

1.2.2 ASEANPay

The ASEANPay Steering Committee Meeting was held on 16-17 November 2006 in Jakarta, Indonesia to discuss the following issues:

- (1) The proposition of the Asian Development Bank (ADB) in supporting Asian international payment under the Asian Automated Clearing House (AACH) model, an ACH system connection among member countries to hold up cross-border payment transactions. ADB also invited an ACH specialist from the United States of America to collaborate in the project as a consultant to consider the possibility of connecting such systems among ASEAN member countries.
- (2) The draft of ASEANPay Operation Framework covering policies, rules and regulations, protocols, fee structures and risk management as to cross-border fund transfer and settlement.
- (3) Issues for consideration regarding the connecting operation of international ATM system as to the exception for transferor and



transferee's data report including the transfer purpose to the Central Bank. In that case, the Central Bank will raise the said issues to the relevant organization and subsequently notify ATM operator in each country.

1.2.3 BATHNET

In 2006, BOT analyzed and gathered information as well as revised BATHNET System under the BATHNET Enhancement Project so that it could be modernized, convenient and better responded to the users of BATHNET service. The details of which are herewith described as follows:

- (1) Developed message format validation and mapping diagram of third-party fund transfers (Message Type 103) of the BATHNET System so that it could support Intermediary Institution in accordance with the standard of SWIFT. Such development would assist the service users in submitting third-party fund transferring transaction which had received offshore to the BATHNET System without the necessity to fix any transaction list. It has been estimated that the system will be complete and ready to launch in June 2007.
- (2) Remodeled training material "Manual of BATHNET System" in e-learning courseware pattern so that it could be more ideal and complete in accordance with the remodeling of the BATHNET System Application. In March 2006, the material was distributed to the users of BATHNET Systems for self-learning instead of in-class training.
- (3) Pored over problems and scheme as to the current BATHNET fee reckoning; bunched up data and criteria as well as researched pieces of comparative information pertaining to fee reckoning for RTGS system in other countries in order that the need to develop a fee reckoning software for fund transfer through BATHNET System could be indicated in a way that the system is to be more flexible and convenient to reckon various categories of fees.

1 Important Developments of Domestic Payment Systems

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- (4) Considered approaches and surveyed needs of BATHNET service users in modifying the system to support multi-transactions under BATHNET Easy Connect Project. This would increase an access for BATHNET users to more conveniently and faster transfer their money.

1.2.4 Improving Efficiency of Cheque Clearing System and Preparation to Transfer to National ITMX Co., Ltd.

In 2006, BOT collaborated with SNPC and the member banks to enhance the cheque clearing system. The details of which are described as follows:

- (1) Joined the Thai Bankers' Association and the Foreign Banks' Association in revising the reasons for cheque refusal so that it could be in line with business environment. BOT, member banks and provincial clearing houses additionally had its relevant regulations and operating systems revised to support such new reasons for returned cheque which was effective since 3rd January 2007 onwards.
- (2) Studied the adjustment of a cheque standard so that it could be suitable for business environment and support the use of Cheque Truncation in the future. The new cheque standard will embrace Magnetic Link Character Recognition (MICR) such as codes for banks and branches, account number as well as any other data printed on a clear band; safety standard as to falsification or modification of cheques including any other standards which are in favor of cheque imaging and processing in exchange of physical ones. Nevertheless, BOT and SNPC is still moving forward to mutually find the new standards applied for the cheque issues.

Moreover, BOT also discussed with the member banks to figure out the resolving approaches that might take place subsequent to the use of new cheque standard e.g. the collaboration of the member banks to print a code set by each member bank onto the cheque

and use such code instead of a branch code located at a provincial/district clearing house in the case that the bank members need to print more than three-digit code onto the cheque since only three-digit code is allowed at the moment.

- (3) Coordinated with SNPC in determining steps to the development of the cheque clearing system. SNPC had presented approaches to the revision of the cheque truncation development to PSC prior to the discussion with the bank members in the cheque clearing system to jointly consider the suitability of the system and make a decision to proceed.
- (4) SNPC submitted its request to BOT to build up an operating system to reckon fee for each inter-bank cheque cleared through electronic clearing centers or clearing houses in other provinces.



1.2.5 SMART System Enhancement Project and the Transfer to ITMX

- (1) The enhancement of SMART System to support the new fee structure. In 2006, the SMART System fee was adjusted into 3 rates according to the transferred amount⁷, duly effective on 3rd April 2006. BOT had also revised its operating system on fee reckoning in order to support the new fee structure. Due to such revision, some types of transfer transactions performed through SMART System were apt to decrease. For instance, dividend payment transactions carried out through Thailand Securities Depository (TSD) had tendency to use cheques as a replacement for transferring through SMART System.
- (2) The transfer of SMART System to ITMX System. In 2006, the meeting was continuously held among such pertinent operating bodies as

⁷ Details are specified in SNPC's Achievements 2006 (Topic : The Adjustment to the Commercial Bank Payment Channel Fees)

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NITMX, system developer, ITMX operating staffs and member banks to follow up the progress of ITMX development and to closely monitor the system transfer. BOT had estimated the member banks' readiness in servicing SMART through questionnaires on their readiness and promptness in using ITMX Bulk Payment System. Subsequent to such process, BOT's suggestions from the questionnaires were given to NITMX in anticipation that the data would be consequently used to adjust the operating system so that it can be consistent with the member banks' needs.

1.2.6 CSD Enhancements

Owing to the Securities Market Development Vol. 2 (2005-2014) of the Ministry of Finance which looks forward to developing Thai debt instrument to be one of the three foundations of the country's financial sector, Thailand Securities Depository (TSD) was assigned to be a center for depository and payment of government in addition to corporate debt instrument and equity.

CSD Enhancement Project was achieved and ready for service on 15th May 2006. Subsequent to the project, any operating transactions pertaining to the depository, payment and delivery of government bonds would be carried out through TSD, whereas BOT would still be responsible for the government debt instruments as a registrar.

Nonetheless, with the collaboration of the Securities Exchange Committee (SEC) and TSD members, BOT had pursued the concerned operating outcome as to post-implementation. The evaluated results as well as suggestions will be subsequently used to adjust the operating systems so that it can be in uniform with the business needs for the confidence of the involved parties.

1.3 Payments System Supervision

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1.3.1 Standard Assessment under FSAP Project (Financial Sector Assessment Program)

FSAP Project (Financial Sector Assessment Program) was co-established by International Monetary Fund (IMF) and World Bank particularly aiming at assessing financial sector. Assessment will cover overall strong and weak points of financial sectors including the Reports on the Observance of Standards and Codes — ROSCs⁸ which affects the financial sector.

For Thailand, the Prime Minister, as the Chairman of the National Corporate Governance Committee, had a resolution in April 2006 stating that it agreed with the initiative for Thailand to be assessed under FSAP Project according to the standard of ROSCs in 5 aspects as follows: 1) Monetary and Financial Policy Transparency; 2) Banking Supervision; 3) Securities Market Regulation; 4) Payment Systems and 5) Anti-money Laundering. FSAP Project had set off a schedule for its staffs coming over to Thailand for assessment in two periods i.e. Period one : during 17-31 January 2007 and Period 2 : during 3-16 May 2007. The reports from which will be made public around September 2007.

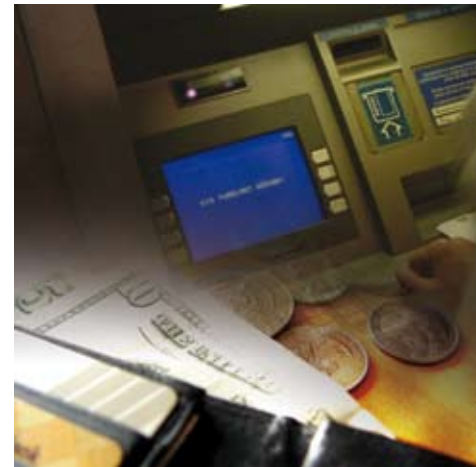


⁸ Reports on the Observance of Standards and Codes - ROSCs is a project co-found by the International Monetary Fund (IMF) and the World Bank to evaluate each country's operation in accordance with international standard, totaling 12 aspects i.e. 1) Data Dissemination; 2) Fiscal Transparency; 3) Monetary and Financial Policy Transparency; 4) Banking Supervision ; 5) Insurance Supervision; 6) Securities Market Regulation ; 7) Payment Systems ; 8) Anti-Money Laundering; 9) Corporate Governance; 10) Accounting ; 11) Auditing and 12) Insolvency. As to the payments system, an assessment standard of Bank of International Settlements (BIS Core Principles for Systemically Important Payment Systems) is employed.

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As to the payments system standard assessment, FSAP is to assess only BIS Core Principles for Systematically Important Payment Systems (CPSIPS). The outlook of the ROSCs Project operating staffs regarding the payments system⁹ which include representatives from BOT and other concerned government and private operating units was that Core Principles for Systematically Important Payment Systems of Thailand is the BATHNET System. As a result, the operating staffs were on their ways to readiness by assessing BATHNET System standard by themselves to analyze and enhance all remaining weak points to be in line with the specified standard. The whole mentioned process was revised by an imported consultant who has been full of expertise in payments system and once participated in FSAP Project as an assessor.



1.3.2 The Process of the Draft Royal Decree Regulating of Electronic Payment Service Businesses B.E....

On 19th July 2004, the Electronic Transactions Commission had a concurring resolution for the proposal of the Sub-committee on Servicing Business Oversight as to Electronic Transactions and Government Electronic Transactions. The Committee thereby considered enactment of the Royal Decree in accordance with Section 32 of the Electronic Transaction Act B.E. 2544 in order to monitor and oversight the electronic payment servicing business and appointed BOT to be an operating unit that would be in charge of supervision in accordance with the enacted Royal Decree.

The Sub-committee on Servicing Business Oversight as to Electronic Transactions and Government Electronic Transactions and the Sub-committee on Legal Infrastructure were mutually accountable for the enactment of the Draft Royal Decree Regulating of Electronic Payment

⁹ Appointed by sub-committee on Corporate Governance Enhancement in connection with commercial banks, finances and insurance companies that are sub-committees under the National Corporate Governance Committee

Service Businesses B.E. The said draft royal decree was initiatively approved by the cabinet on 21st November 2006 and was subsequently submitted to the Office of the Council of State for consideration. Structures of the Royal Decree can be categorized into 6 chapters 30 sections as follows:

General Provisions

- Chapter 1 : Electronic Payment Services
- Chapter 2 : Rules and Procedures on Submitting the Form of Notification and Registration
- Chapter 3 : Rules and Procedures for submitting application for the license
- Chapter 4 : The Rules for Undertaking Business
- Chapter 5 : Supervision
- Chapter 6 : The renewal, suspension and license revocation

Transitional Provision

List Attached to Royal Decree Regulating of Electronic Payment Service Businesses B.E.

Electronic payment supervision can be achieved in 3 levels i.e. notification, registration and request for liscense considering factors and potential effects they may cause from carrying out the business. Such effects are detailed as follows:

- (a) Effects concerning financial and/or commercial stability
- (b) Effects with regard to reliability and acceptability of electronic data system
- (c) Effects regarding public

In 2006, there was an operation performed in support of enactment of the draft Royal Decree. Opinions of both business providers, public and relevant operating orginaztions across the country - Bangkok, Chiang Mai, Phuket, Chonburi, Khon Kaen - were well received. The comments and

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32 suggestions acknowledged will be used to enhance the draft Royal Decree.

Furthermore, BOT had planned and arranged the supervision of electronic payment services enforced by virtue of the Draft Royal Decree Regulating of Electronic Payment Service Businesses B.E.... The examples of which were the issuance of criteria and proclamation, instruction of information to the business providers so that they could acknowledge, understand and precisely comply with the Royal Decree, and the meeting arrangement aiming at passing on knowledge to the service providers, etc.

1.4 Directions of Domestic Payment Services

1.4.1 Service Providers' Competition

The service providers, both commercial banks and non-banks, are likely to compete in retail or micro payments due to the reason that they are whopping markets which could be noticeably categorized into several niche markets e.g. bill payment service, person-to-person payment, remittance payment etc. This has facilitated marketing process.

1.4.2 Advance of Information Technology

The advance of information technology will undoubtedly affect new approaches of payment services due to the following reasons--it can better reach service users; services are diversified; it better responds to various service users' needs; it is safer and more effective; it is able to develop an interfaces that meet users' needs such as the installment of barcode reader at Automatic Teller Machines or mobile phones. All in all, the technologies which will hit the track within these 4-5 years are described as follows:

(1) Card Payments Technology

Contact card will still be commonly used, whereas the contactless card will be more well-liked for payment made in small amount or the one that requires speedy payments such as a transportation system, express ways, gas stations, convenient stores, fast food restaurants etc. This latter technology allows the customers to make payments without the necessity of a contacted card processing machine. As a result of payment convenience, it will surely be another significant technology in the future.



(2) Wireless Payments

Presently, payment technology was integrated with wireless technology as it has obviously taken place with mobile phones and internet. Within these 4-5 years, payments made through mobile phones will be more and more accepted considering the amount of mobile phone users which had reached 66% together with safe payment technology. For instance, VISA has launched VISA Wave, a contactless payment method through mobile phone; the use of EMV chip for remote payment launched in Malaysia at the beginning of the year 2006. Nevertheless, domestic payment via internet system still required some more time due to the slight volume of users in the country-12% of the entire population.

1.4.3 Lifestyle Transformation

Lifestyle variation is essential to the creation of payment service patterns. Hasty lifestyle has impinged on such transportation services as a sky train in a way that it has to develop its payment system and respond to commuters' needs of speed and convenience.

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1.4.4 Payment Networks Integration

There will be rising tendency in relation to payment networks integration. It will better reach the payment service users and reduce overlapped investment in the system. The cited integration will make interbank payments and transfer among bank and non-bank customers achievable.



Retail or micro payment markets have ceaselessly developed effective payment innovations. This fact could be revealed to developed and developing countries' attempts to develop their payment systems. Cashless society or a society which least depends upon cash have been their ideal societies.

It was anticipated that e-money will become an imperative mean to cashless society. Two types of e-money payment methods which are highly trendy at the moment are prepaid smart card and mobile payment. Also, it is to be expected that both type of payment methods will be accepted in no time in many countries.

Strong points of e-money are its convenience and swiftness and can definitely be used in substitution for cash. Besides, it is superior to cash in a sense that it saves time and expenses caused by cash transferring, counting and exchanging processes. However, the major glitch of e-money still exists. It cannot be cross-used among each service providers. Provided that this problem cannot be unraveled, the road to reality for the e-money to be used as a replacement for cash will be indisputably potholed.

In the countries with vast areas of lands such as China, India, the Philippines and some countries in Africa, they have been confronted with high cash transferring costs and disseminating difficulty. Due to the cost of the said process, they developed e-money system functioned through a mobile phone to support remote payments. This could be achieved in these countries as a consequence of the high volume of mobile phone usage.

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2.1 Kenya

The registered mobile phone users in Kenya have been almost 135 million in 2005 and it has been estimated that the number would reach 400 million in 2010. In Kenya, a person-to-person fund transferring system called M-PESA, a system which became existent through the collaboration of three parties which are Safaricom, Vodafone Group Services, and Commercial Bank of America, can now be performed on mobile. The users are able to use applications on the mobile's menu list to easily and conveniently transfer money to any persons. It was also expected that the use of e-money in Africa will completely change the lifestyle of Africans. Another financial service that can be accessed through a mobile phone is mobile banking service.



2.2 The Philippines

The registered mobile phone users in the Philippines have been almost 42 million. GCash, a popular funds transferring service via mobile phones in the Philippines, is a system through which bill payments as well as domestic and international remittances can be made. This service facilitates the Filipino working off-shore to easily transfer money back home. GCash service functions transferring command through Short Message Service (SMS).



For the developed countries, apart from debit and credit cards which have been generally used for an extensive period of time, the developed e-money transactions both functioned through a mobile phone and a card have been increasingly in style, especially for micro payment such as the payment of transportation, gas etc. Not only e-money is used as a

replacement for cash, but it is also used to replace debit and credit cards in some cases. Still, because of the merchant discount rate paid to acquiring banks, it is crucial for the business owners to figure the way out mostly by setting the minimum amount for credit card usage or a surcharge.

2.3 England

Three-fourth of transportation in London by its underground and buses will be paid by an e-money called Oyster. This card is very popular and well accepted for Londoners because it is not only convenient and quick but also comes in a special package which is more economical than paying with cash. Furthermore, England is launching another payment system called Dual Interface System which combines e-money card to credit card. Regarding this innovation, VISA's contactless technology called "Wave and Pay" will be employed for e-money, whereas "Chip and Pin" technology will be used to enhance safety of credit card transactions. Nonetheless, e-money card can only be used to pay for goods and services which are not more than 19 USD or 10 Pounds per transaction.

2.4 Japan

Cash is highly used in this country, especially for payments made in shops, department stores and public utilities bills. Even though e-money card was previously launched for quite a period of time, it is still not very well-accepted until recently when it can be used through mobile phones. It is anticipated that the main reason is because Japanese have already got used to the use of mobile phones.



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The most popular e-money service in Japan is known as Edy. The services are provided through both mobile phones and cards. Nowadays, there are more than 43,000 shops accepting Edy services, whereas its users are more than 23 million. From this amount, 4.5 million users use the service provided through mobile phones. An average of transaction per month is 15 million transactions. Its growth rate twofold increased last year. The second most popular e-money service is referred to as Suica with more than 18 million users. It is found by JR East Railway, a company focusing on public transportation business.

Formerly, Japanese e-money system designed by each service providers could not be cross-used, but recently, there was collaboration between public transportation businesses in Tokyo which are the sky train and the bus aiming at connecting their e-money systems together. The system could be functioned through both mobile phones and types of cards. The tendency of network connection is increasingly rising due to these two important reasons:

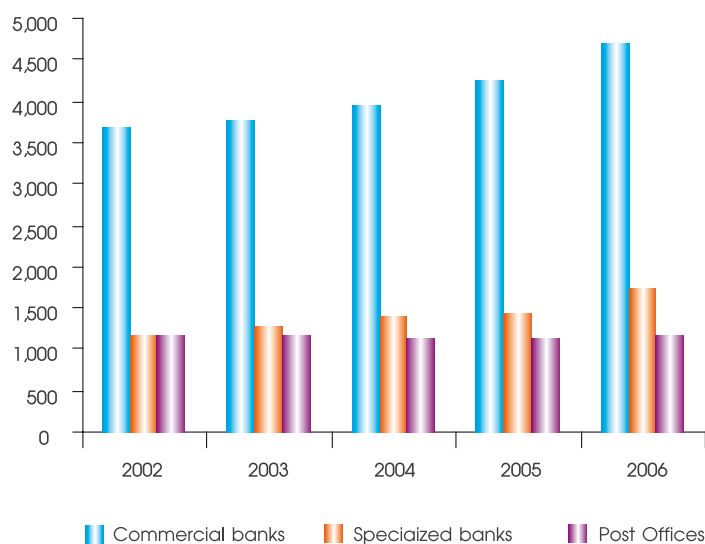
- (1) The need of each e-money service provider to survive through business-many service providers have in recent times realized that self-designing for the e-money usage in a close-loop system and was a stumbling block that barred the popularity of the users against the services since it could not be used as a replacement for cash.
- (2) The connection among service providers could be effortlessly achieved in view of the fact that most e-money services used in Japan were under the same standard. They used operating chips called "Felica" developed by SONY.

3.1 Developments of Payment Infrastructure

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3.1.1 Branches of Commercial Banks, Specialized Banks and Post Offices

Figure 1 : Number of Branches of Commercial Banks, Specialized Banks and Post Offices



Source : Bank of Thailand

In 2006, 11%, 21% and 1% new branches were respectively established by the commercial banks, specialized banks and post offices.

- Commercial banks: currently totaling 4,718 branches from 4,245 branches in 2005. From this number, 4,701 branches are Thai commercial banks, whereas 17 are foreign commercial bank branches.
- Specialized banks: currently totaling 1,714 branches from 1,420 branches in 2005. The greatest numbers of branches are 880 branches operated by Bank for Agriculture and Agricultural Cooperatives. The second and the third are Government Savings Bank and Government Housing Bank with the number of branches

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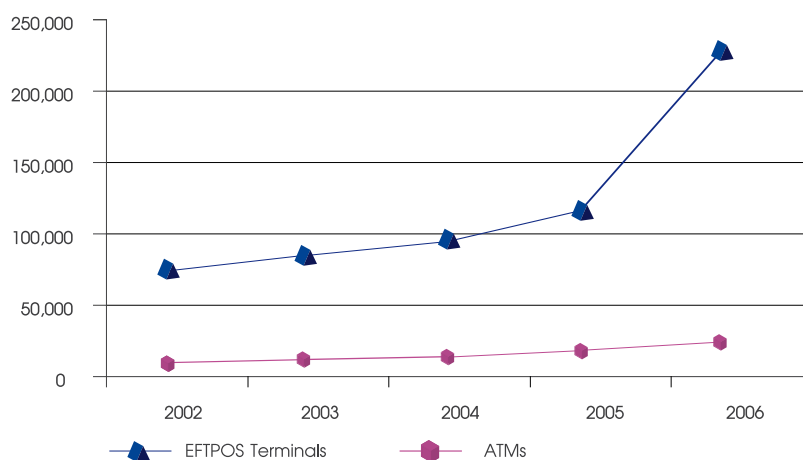
of 591 and 108 branches respectively. Bank for Agriculture and Agricultural Cooperatives had the highest level of branch establishment totaling 284 branches in 2006 in order to expand financial services.

Major Thai commercial banks were paving their ways to establish a number of small branches and extend service time, especially for branches situated at department stores, supermarkets, office buildings, universities, and gas stations, to respond with shifting lifestyles of customers who tend to merge all activities to one place. Additionally, commercial banks and specialized banks also installed automatic cash deposit machines and pass book updating machines to facilitate customers and diminish their staff workloads.

- Thailand Post Co., Ltd.: presently has 1,158 branches with 12 new branches established in 2006. It has expanded its services including the collaboration with UOB in sending an on-line money order at the bank counters or through UOB Cyber banking. The system will subsequently transfer money to specified post offices for customers.

3.1.2 ATMs and EFTPOS Terminals

Figure 2 : Number of ATMs and EFTPOS Terminals



Source : Bank of Thailand

At the moment, commercial banks are increasingly focusing on installation of ATMs since it can be used as an electronic banking, especially for bill payments and funds transfer. Many banks also added barcode reader to their ATM machines so that bill payment transactions can be conveniently, quickly, easily and safely made by customers.

- There are currently 21,988 units of ATM, increased from 15,784 units in 2005. The increasing rate is 39%
- There are 208,942 units of EFTPOS terminals increased from 102,000 units in 2005. The increasing number of data is relatively significant. This is due to the alteration of data gathering methods from the used gathered from credit card service provider networks to be the data from the commercial banks and credit card companies. The data reflected the popularity of credit and debit cards using instead of use cash. Other essential factors that rapidly increased the number of EFTPOS were the reduced price of the device, expansion of acquiring business and market supporting campaign as to debit and credit cards carried out by commercial banks and non-bank operating units.

3.1.3 ATM, Debit and Credit Cards

- There were 30.9 million ATM cards , increased from 28.8 million cards in 2005. The increasing rate was 7%.
- There were 14.0 million debit cards, increased from 11.0 million cards in 2005. The increasing rate was 26%.

In 2006, among all types of cards, the card which had the highest level of circulation in the system was still an ATM card—55% decreasing from 58%, whereas debit card was 25%, slightly increased from 22% in the previous year. The proportion of credit cards was nevertheless remained unchanged at 20%.

The trend of plastic cards indicated that commercial banks' customers have used more debit cards. Even though the level of possession and

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ATM cards usage are still high, it has shown slightly decreasing tendency from the previous year. This phenomenon may have been from the reason that the commercial banks were likely to encourage the use of debit cards instead of ATM cards due to its diversified functions of usage. Not only it can be used to withdraw and/or transfer money from the ATMs, but it can also be used to pay for goods and services via EFTPOS devices. It helps to decrease withdrawing cash for payments which more convenient for customers. The system itself did enhance efficiency to the payment system. At present, many commercial banks are likely to issue debit cards instead of ATM cards. Moreover, promotional campaign and expansion of EFTPOS were simultaneously carried out to persuade bank's customers to use debit cards to pay for goods and services via EFTPOS devices. It has been expected that the number of debit cards would be eventually higher than that of ATM cards

- There were 10.9 million credit cards, increased from 10.0 million

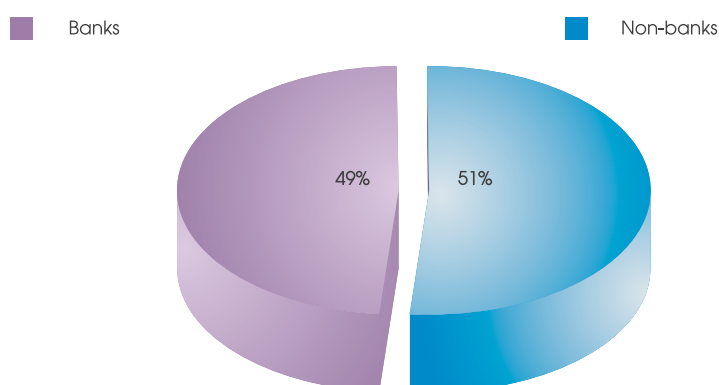
Figure 3 : Number of ATM cards, Debit cards and Credit cards



Source : Bank of Thailand

cards in 2005. The increasing rate was 9.5%. This particular data can be separated into two types—5.6 million credit cards were issued by commercial banks and 5.3 million cards were issued by non-bank institution.¹⁰

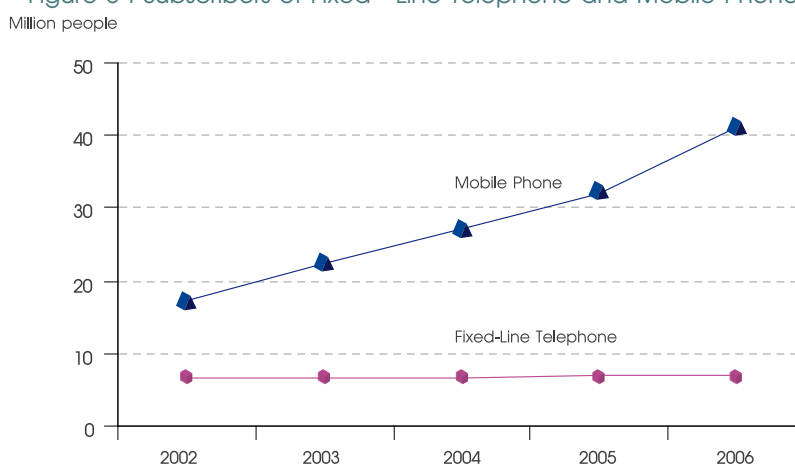
Figure 4 : Proportion of Credit Card Issue by Banks and Non-Banks in 2006



Source : Bank of Thailand

3.1.4 Subscribers of fixed-line telephone, mobile phone

Figure 5 : Subscribers of Fixed - Line Telephone and Mobile Phone



Source : Bank of Thailand

¹⁰ These non-bank institutions were Krungthai Card Company Limited, Krungsriyudhya Card Company Limited, General Card Services Company Limited, Cetelem (Thailand) Company Limited, Tesco Card Services Company Limited, American Express (Thailand) Company Limited, Aeon Thana Sinsap (Thailand) Company Limited, AIG Card (Thailand) Company Limited, GE capital (Thailand) Company Limited, and Capital OK Company Limited

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Fixed-line Telephone: there were 3 operators namely TOT Public Company Limited, True Corporation Public Company Limited and TT&T Public Company Limited. TOT provides its service both in Bangkok Metropolitan and other provinces of Thailand while TRUE provides its services only in Bangkok and TT&T provides its services only in off-Bangkok area. In 2006, 11% of total population was the proportion of fixed-line telephone users, totaling 7.04 million subscribers, 1% increased from 7.0 million subscribers last year. This slight increase was generated by price reduction of mobile phone service fees. The relatively low-priced service fees and convenience were likely to capture people's intention for mobile phones usage. However, the strong point of the fixed-line telephone is its ability to connect to the internet.

There were currently 5 mobile phones operators namely Advance Info Service Public Company Limited, Total Access Communications Public Company Limited, Thai Mobile Company Limited, Hutchison CIT Wireless Company Limited and True Move Company Limited. There were 41.3 million mobile subscribers in 2006, 9.3 million subscribers increased from last year. The increasing rate was 29%. The majority of subscribers were prepaid customers totaling 35.0 million or 85% of all mobile subscribers, whereas there were only 6.3 million postpaid customers totaling 15% of all mobile subscribers.

3.2 Major Channels and payment instruments

3.2.1 Cash Usage

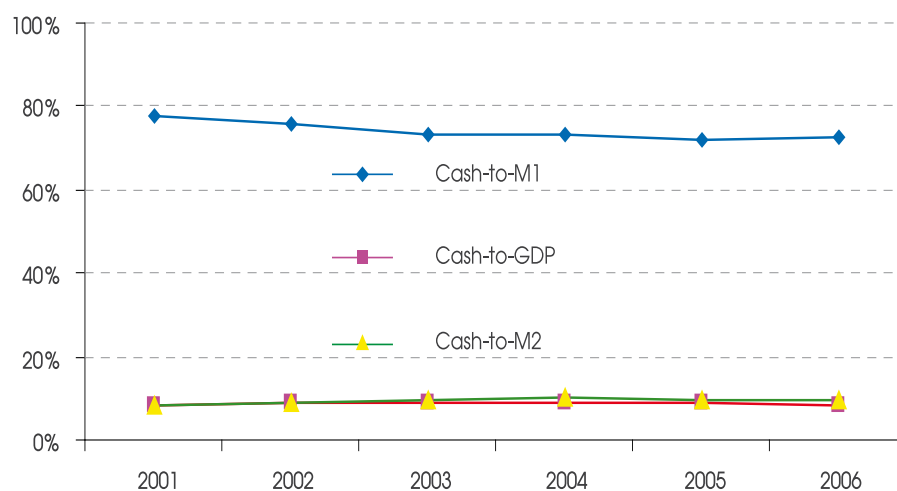
Currency in circulation per capita tended to increase in accordance with economic expansion or Gross Domestic Products (GDP). It increased from 10,102 baht in 2005 to 10,389 baht in 2006, whereas GDP per population increased from 113,549 baht to 124,353 baht respectively. (Table 1)

Table 1 : Currency in circulation per capita and Gross Domestic Products per capita (GDP per capita)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|--------|--------|--------|---------|---------|---------|
| Currency in circulation per capita (Baht) | 7,004 | 7,807 | 8,545 | 9,661 | 10,102 | 10,389 |
| GDP per capita (Baht) | 82,400 | 86,794 | 93,808 | 104,725 | 113,549 | 124,353 |

Source: Bank of Thailand

Figure 6 : Cash Compared to GDP, M1 and M2



Source: Bank of Thailand

When comparing the ratio of cash to that of GDP (Figure 6), it was found that such ratio was fairly stable—9% since 2002 and commenced descending to 8% in 2006.

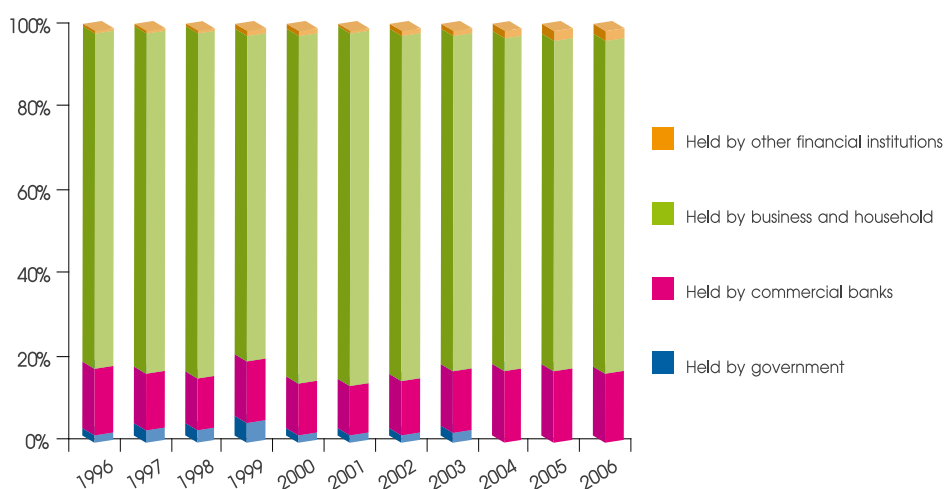
When considering composition of currency holding, it was found that currency in circulation held by public¹¹, commercial banks and government increased slightly. (Figure 7)

¹¹ Currency in circulation held by public refers to currency held by business and household sectors

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Figure 7 : Composition of Currency

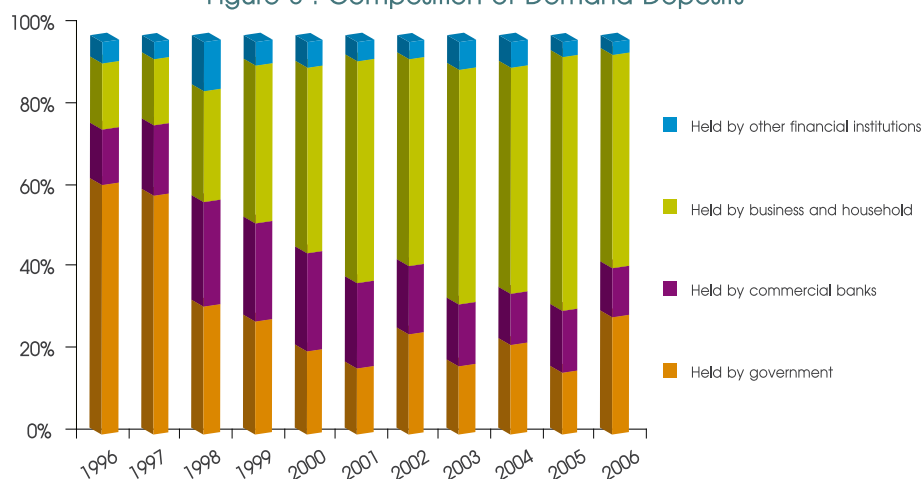


Source: Bank of Thailand

Moreover, once considering the tendency as to cash usage from the proportion of the amount of cash compared to M1¹² which shows the tendency as to the use of cash compared to the use of other payment means through commercial banks demand deposit accounts (Figure 8), it indicated that such proportion increased to some extent from 72% in 2005 to 73% in 2006.

¹² M1 can be classified as currency in circulation held by public, demand deposit of business as well as deposit of household sector at the commercial banks.

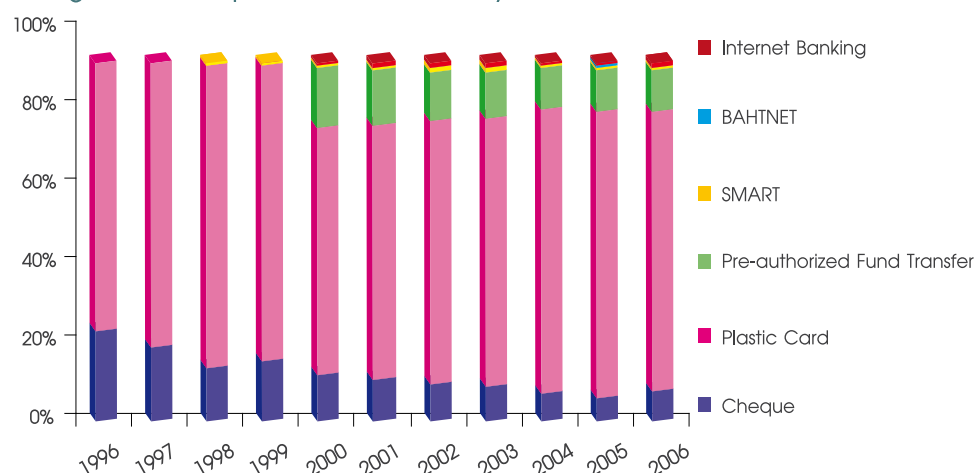
Figure 8 : Composition of Demand Deposits



Source: Bank of Thailand

The significant Thai payment systems and channels which have extensive ranges of transactions and values consist of high value funds transfer or BATHNET, retail funds transfer such as cheque clearing, SMART, Pre-authorized Direct Credit/Direct Debit; internet banking; and plastic cards e.g. ATM card, debit and credit cards.

Figure 9 : Comparison of Various Payments in Volume of Transaction



Source: Bank of Thailand

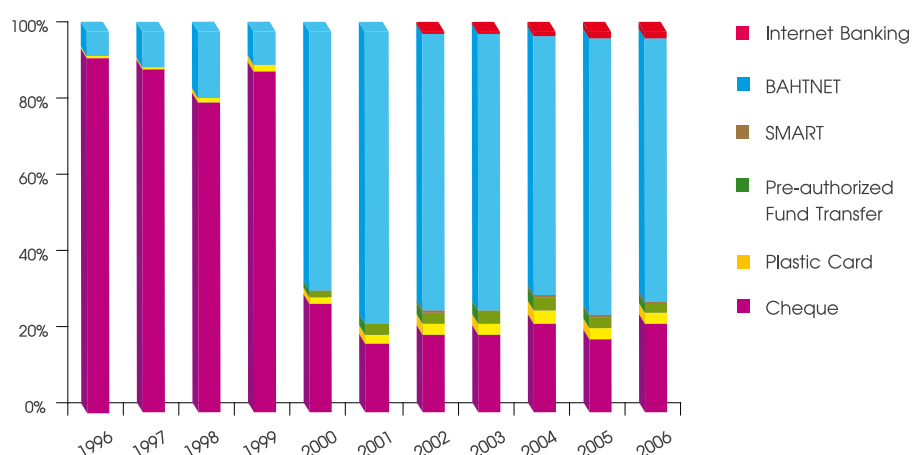
Payment transactions performed through all categories of payment systems and channels increased in both volume and value. Once considering quantitatively (Figure 9), the most popular channel was plastic cards—78%.

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The next was pre-authorized direct credit/direct debit and interbank use of cheques—11% and 8% respectively.

Figure 10 : Comparison of Various Payment Instruments in Value



Source: Bank of Thailand

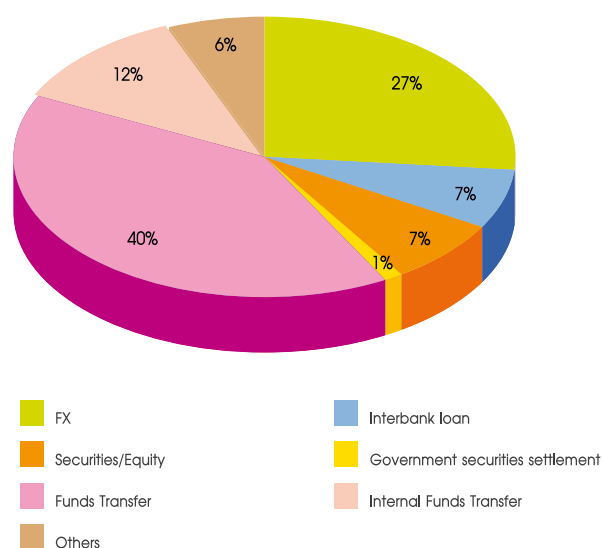
In terms of transaction value (Figure 10), funds transferred through BATHNET held the largest share, but it descended from 73% in 2005 to 69% in 2006. The cheque value increased from 19% to 23 % in 2006 for the reason that the data as to cheque in the same bank was additionally gathered. Nonetheless, pre-authorized direct credit/direct debit, SMART, internet banking; and plastic cards slightly decreased.

3.2.2 High-Valued Funds Transfer System

The funds transfer via BATHNET (Bank of Thailand Automated High-Valued Transfer NETwork) can be categorized into 7 business categories as follows: interbank funds transfer, FX tradings, interbank loans, internal funds transfer, securities/equity tradings, government securities settlements and others.

In 2006, the highest value via BATHNET was interbank funds transfer——40% of total BATHNET transactions. The second highest value was FX trading——27%. The internal funds transfer was the third to the rank at 12%, while securities/ equity trading, interbank loans, government securities settlement and other transactions were at 7%, 7%, 1% and 6% respectively.

Figure 11 : Values of Funds transfer via BATHNET Classified by Business Type



Source: Bank of Thailand

There were totaling 1,721,285 transactions valued 143.3 trillion baht performed via BATHNET in 2006 increased from 1,503,755 transactions valued 105.6 trillion baht in 2005.

In relation to funds transfer, it could be classified as follows:

- 1) Interbank Funds Transfer: there were totaling 140,674 transactions valued 69.9 trillion baht. Volume and value of transfer among financial institutions increased from last year at 10.32% and 27.81% respectively. Interbank funds transfer consists of (1) interbank payment made for clearing totaling 2,478 transactions, value at 6.4 trillion baht. The volume of transaction decreased 0.4%, whereas

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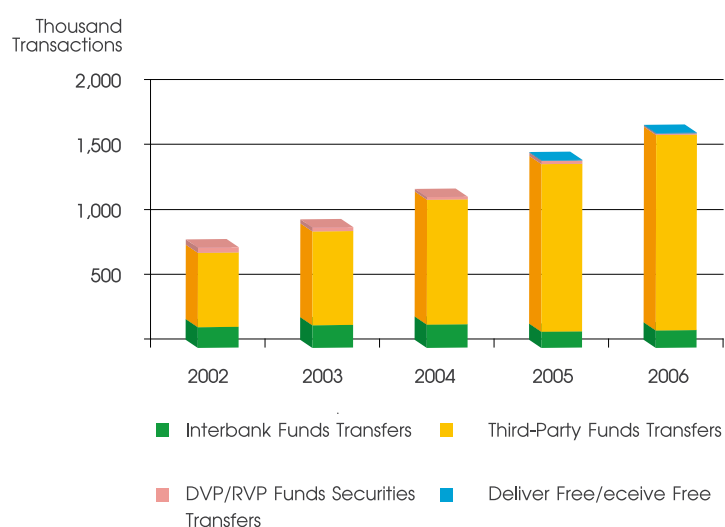
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the value increased 14.1%. (2) Interbank funds transfer among commercial banks totaling 10,530 transactions, value at 16.8 trillion baht. The volume and value of transactions both increased 6.0% and 29.1% respectively.

The transfers of payment operations and submission of government debt instruments to Securities Depository (Thailand) Company Limited on 15th May 2006 affected the quantity of transferred transaction as to paid and unpaid debt instruments via BATHNET in 2006 (Jan-May) in way that it descended to only 9,743 and 1,274 transactions respectively compared to the previous year at 29,199 and 2,067 transactions respectively. The payment value of debt instruments via BATHNET system in 2006 was lower than the previous year. It decreased to 2.2 trillion baht from 3.0 trillion baht in 2005. This includes the transfer of unpaid debt instruments which descended from 0.8 trillion bath in 2005 to 0.6 trillion bath in 2006.

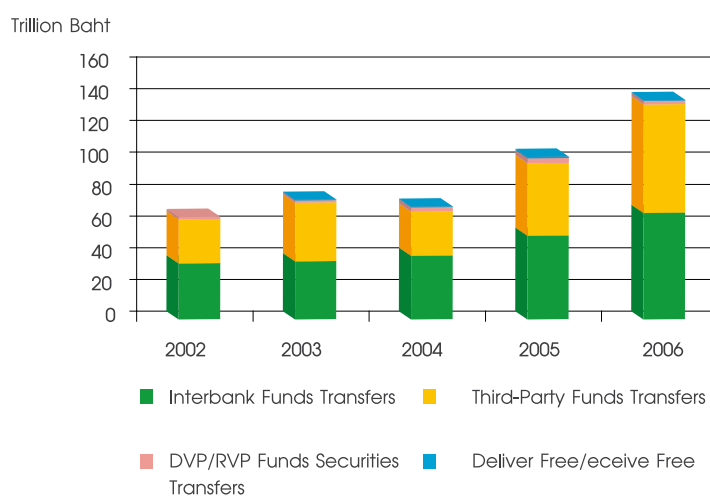
- 2) Funds Transfer for Third Parties: there were totaling 1,570,868 transactions which were considered 16.6% increased from last year transactions. As to the value of all transactions, it was valued 71.2 trillion baht, 48.4% higher than the preceding year. Volume and value of funds transferred to third parties have increased due to the transfer of payment operations and submission of government debt instrument to Securities Depository (Thailand) Company Limited. The payment of which will be conducted for the third parties via BATHNET.

Figure 12 : Volume of Funds and Securities Transfer via BAHTNET System



Source: Bank of Thailand

Figure 13 : Value of Funds and Securities Transfer Via BAHTNET System



Source: Bank of Thailand

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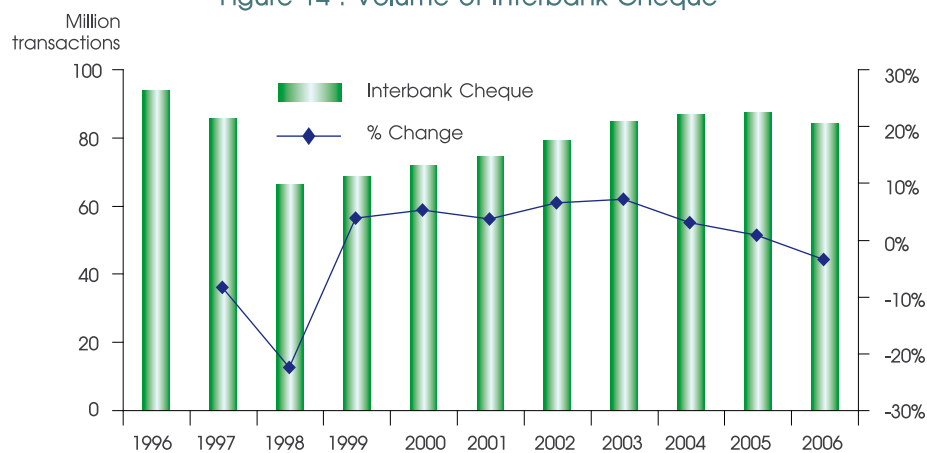
3.2.3 Cheque Clearing System

Interbank Cheque Clearing System

Interbank Cheque Clearing Systems comprise Electronic Cheque Clearing System (ECS), Provincial Cheque and Bill for Collection (B/C)

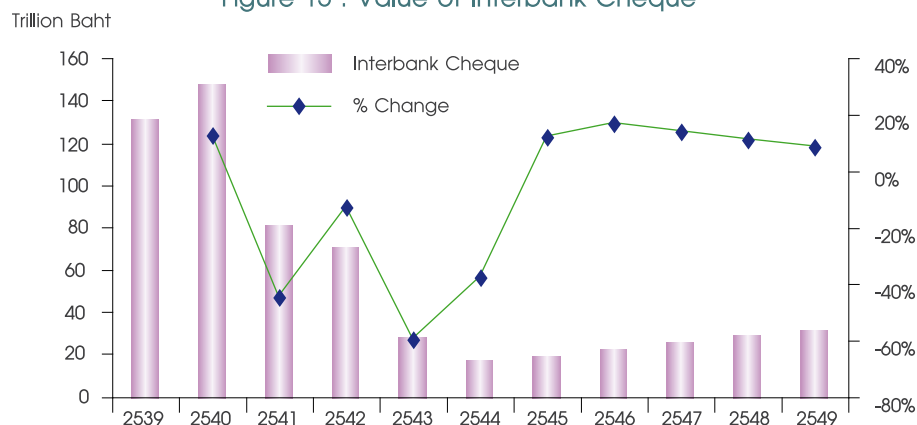
In 2006, daily average volume of cheque usage was approximately 346,062 items and its average value was around 124.2 billion baht. The average volume of interbank cheque usage per capita slightly decreased compared to the preceding year which was 1.3 items per year. Moreover, the volume of interbank cheque fell down from 87.4 million items in 2005 to 84.1 million items in 2006.

Figure 14 : Volume of Interbank Cheque



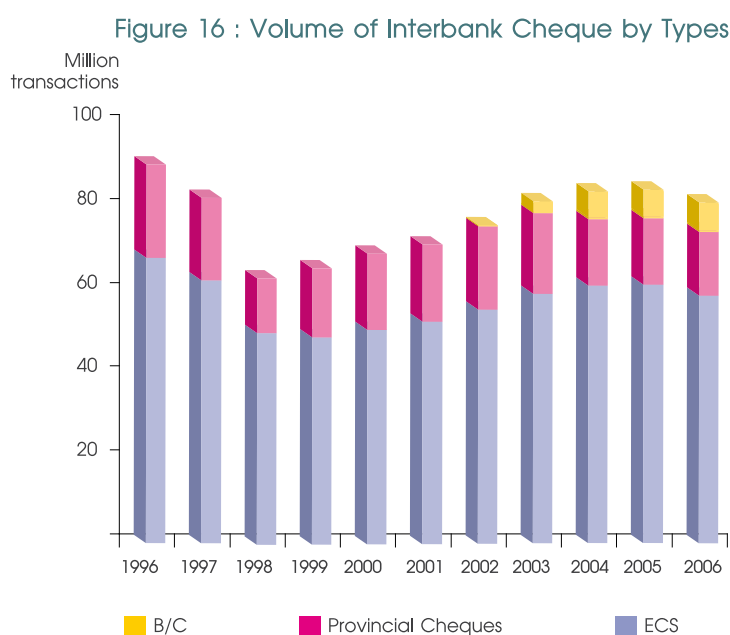
Source: Bank of Thailand

Figure 15 : Value of Interbank Cheque



Source: Bank of Thailand

The value of interbank cheque did go up but was still less than the previous year from 11% in 2005 to 9% in 2006 (Figure 15). The total value was 30,121 billion baht.



Source: Bank of Thailand

The proportion of volume and value of cheques in Bangkok and its vicinity in 2006 was still similar to the preceding year which was 73% and 90% respectively. As to the cheques of clearing houses in other provinces, the proportion of volume and value of the cheques was inferior to that of Bangkok and its vicinity which were 19% and 9% respectively, whereas the proportion of volume and value of cross-clearing house cheque was only 8% and 1% respectively.

3 Data and Statistics in Payment Systems

54 In-house Cheque Clearing System

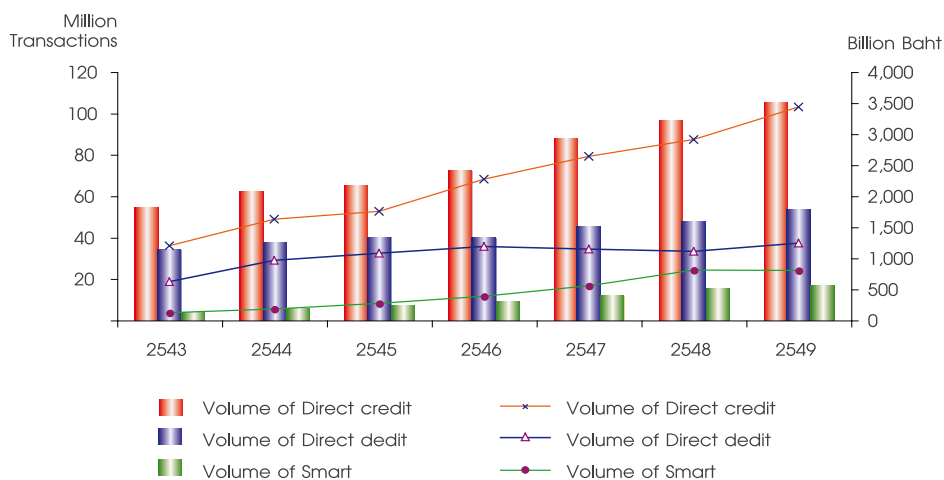
In 2006, BOT began to collect data as to in-house cheques from commercial banks and some specialized financial institutions. The mentioned data includes the volume and value of intra-bank cheque collection in Bangkok, and its vicinity, provincial cheque collection, and inter-provincial cheque collection

In 2006, the volume of the intra-bank cheque collection was 43.7 million items or 34.2% of collected cheque volume, whereas the value of the intra-bank cheque collection was 18,079.6 billion baht or 38% of cheque value.

3.2.4 Pre-authorized Direct Credit/Direct Debit

Pre-authorized payment systems serve purpose of retail funds transfers that are small in value, periodic, large in volume and have an advanced agreement. The systems comprise pre-authorized direct credit within the same commercial bank such as salary, wages, dividend tax return; 2) pre-authorized direct debit such as bill payments, insurance premium, credit card payment etc.; 3) SMART regulated by BOT and providing services for direct credit transactions only .

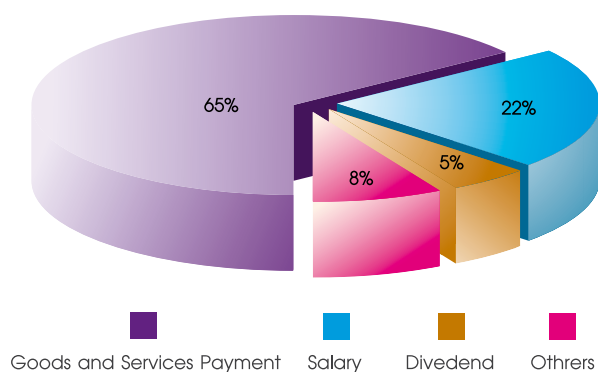
Figure 17 : Volume and Value of Pre-authorized Direct Credit/Direct Debit



Source: Bank of Thailand

In 2006, the total value of pre-authorized funds transfers was approximately 5.5 trillion baht, 14% increased from the preceding year with 176 million transactions, 10% increased from the previous year. The highest level of volume and value was direct credit transactions at 60% and 63% respectively, while the second highest level of volume and value was direct debit transactions at 30% and 23% respectively. The proportion of SMART was 10% in volume and 15% in value.

Figure 18 : Proportion of Value of Funds Transfer Via SMART in 2006



Source: Bank of Thailand

The total volume of interbank retail funds transferred via SMART in 2006 was 17.1 million transactions, 1% increased from the last year, whereas it valued 801.7 million baht, 1% decreased from the last year. When considering quantitatively, the highest level of transactions was from salary and wages payments at 45%. The second highest level was goods and services payments at 36%. However, when considering the value of transactions, the highest level of transactions was from goods and services payments at 65%, whereas the second highest value was salary and wage payment at 22%, 8% for others and 5% for dividend.

The total volume of direct credit transfer was 105.7 million transactions, valued 3,436.2 million baht, 9% and 18% respectively increased from the previous year. The highest level of volume and value were from salary and wages payment at 58% and 90% respectively.

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The total volume of direct debit transfer was 53.3 million transactions, valued 1,238.5 million baht, 11% and 12% respectively increased from the previous year. Almost every transaction was goods and services payments at 99% and 98% respectively.

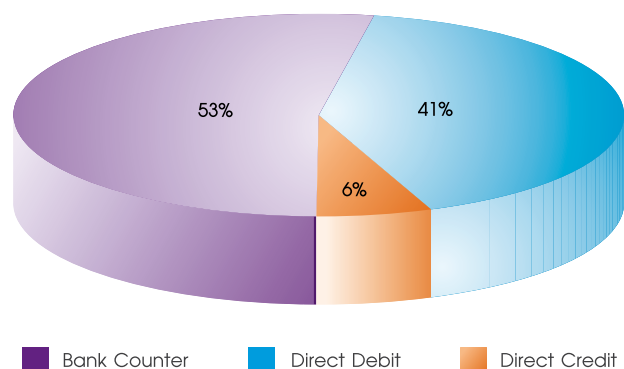
3.2.5 Services via Bank's Counters

Bill Payment

In 2006, BOT pleaded cooperation from commercial banks to report payment information according to Bill payment such as public utilities fees, goods and services payments by cash, cheque and other channels to BOT. The total volume of bill payments made via bank's counters was 66.9 million transactions. The highest value paid by cash was 58.8 million transactions or 88% of all transactions. The total value of transactions carried out via bank's counters was 3,908.9 billion baht while the highest value paid by cheque was 49% of the total value.

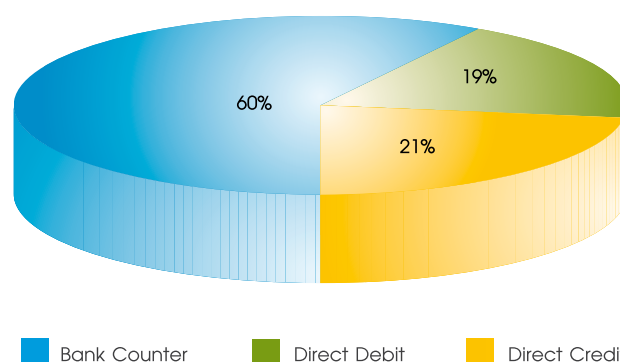
Once comparing volume and value of automatic payment systems for goods and services such as direct debit and direct credit with services through the Bank's Counters, it was found that payments made at the bank's counters were most accepted both in terms of volume and value totaling 50% and 60% respectively. However, the second highest volume of transaction was 41% in the case of payment via direct debit system and 21% in the case of direct credit.

Figure 19 : Proportion of Volume of Bill Payments Via Direct Debit, Direct Credit and Bank Counter in 2006



Source: Bank of Thailand

Figure 20 : Proportion of Value of Bill Payments Via Direct Debit, Direct Credit and Bank Counter in 2006



Source: Bank of Thailand

Interbank Funds Transfer through ORFT

The Bank launched the new system, interbank funds transfer via ORFT at the bank's counters via ATM networks on 15th December 2005. Such service is suitable for retail funds transfer of maximum 100,000 baht and enables transferee to immediately withdraw cash from the system. Nowadays, there are 10 commercial banks¹³ providing this service. There were 2.2 million transactions in 2006, and its value was 23.3 billion baht.

3.2.6 Plastic Cards

Credit cards were still the most popular channel of payments for goods and services. Nevertheless, during last year, the collaboration among banks and shops was shored up to support debit cards usage instead of cash. It was estimated that debit cards usage would increase in the future, for it is more convenient than that of cash and the service users tend to realize its presence. Furthermore, megastores commenced realizing the burden of taking care of cash received from customers, so payment received by debit cards could be another channel which would relieve such burden to some extent.

¹³ Banks that provide this service are Bangkok Bank, Bank of Ayudhaya, Krungthai Bank, Kasikorn Bank, Thai Military Bank, Siam Commercial Bank, UOB Bank, Bank Thai, Siam City Bank, Thanachat Bank

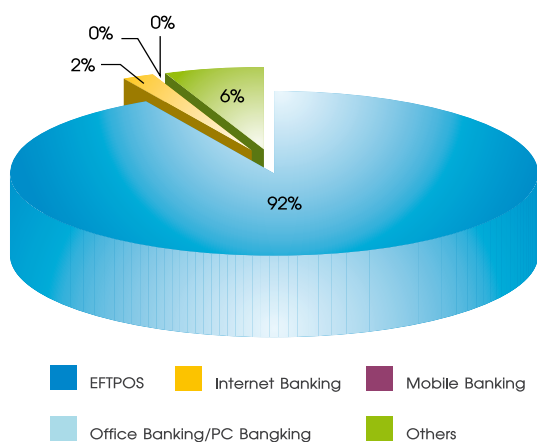
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Credit Cards

Overall credit card usage value in 2006 was approximately 753 billion baht compared to 626 billion baht in 2005, signifying 20 percent growth rate, slightly higher than the previous year. The credit cards were most used at EFTPOS indicated by number of transactions and value of total usage—92% and 93% respectively whereas Internet Banking and Mobile Banking were relatively out of favor, both the number of transactions and value of total usage. This was due to the reason that ITMX system supporting such banking system has been being developed. Its achievement was estimated to be around the end of 2007

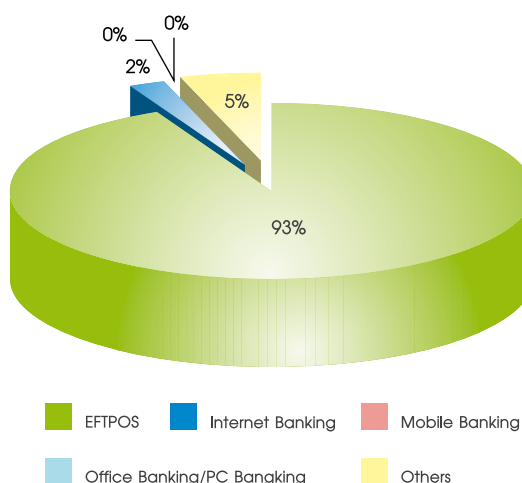
Figure 21 : Proportion of Volume of Credit Card Through Various Channels in 2006



Source: Bank of Thailand

Figure 22 : Proportion of Value of Credit Card Through Various Channels in 2006

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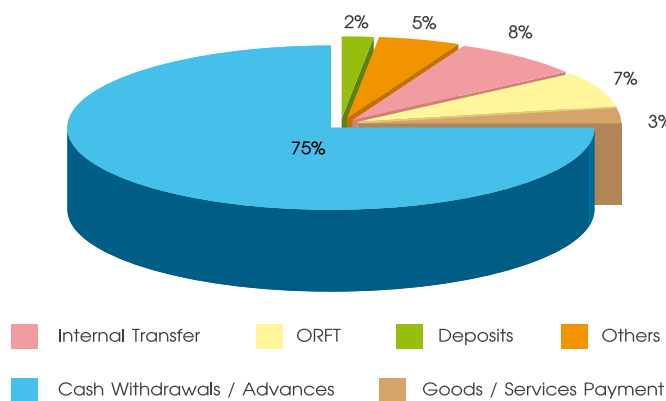


Source: Bank of Thailand

Debit Cards

Total debit card transactions in 2006 were 326 million transactions having usage value of 2.2 billion baht--24% increased from 2005 (262 million transactions and 1.8 billion baht). In 2005, volume of cash withdrawal conducted via debit cards decreased from 76% in 2005 to 75% in 2006. This circumstance was attributable to the alteration of customers' behaviors. They tended to increasingly use debit cards for cash transfer and goods and services payments at point of sales (EFTPOS).

Figure 23 : Proportions of Debit Card Volume in 2006



Source: Bank of Thailand

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Tendency of credit and debit cards usages will ceaselessly expand due to the following factors:

- The increased number of shops receiving payments by cards
- Promotional campaign for debit and credit cards conducted by issuers as to sales promotion such as discount or rewards
- Customers' behaviors which were likely to accept the use of plastic cards as a replacement for cash

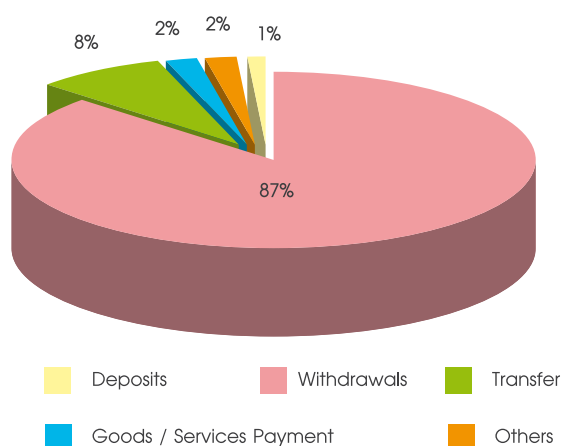
ATM Cards

The usage volume of ATM cards¹⁴ increased 19 percent from 532.3 million transactions in 2005 to 632.7 million transactions in 2006 while the value of ATM usage was 21 percent higher than that of last year—2,321.4 billion baht in 2005 to 2,808.7 billion baht in 2006.

Tendency of cash deposit via ATMs has been inclined—46 percent increased from that of 2005. This indicated that the customers were likely to increasingly deposit cash via ATMs. This could also apply to cash transfer transactions with increased from 7 percent in 2005 to 8 percent in 2006. This data denoted an effective usage of ATM cards.

¹⁴ Only ATM transactions of commercial banks, excluding specialized financial institutions

Figure 24 : Proportion of ATM Card Volumes in 2006



Source: Bank of Thailand

Table 2 : Details of ATM and Debit Cards Usage in 2006 Conducted Through Various Channels and Categorized by Volume and Value.

| | Volume | | Value | |
|-----------------------------------|----------------------|------|--------------|------|
| | Million Transactions | % | Billion Baht | % |
| ATM Cards | | | | |
| - Withdrawal | 554 | 87.5 | 2,190 | 78.0 |
| - Transfer | 52 | 8.2 | 510 | 18.1 |
| - Payments for goods and services | 10 | 1.6 | 34 | 1.2 |
| - Deposit | 7 | 1.1 | 75 | 2.7 |
| - Others | 10 | 1.6 | 0 | 0.0 |
| Total | 633 | 100 | 2,809 | 100 |
| Debit Cards | | | | |
| - Withdrawal | 245 | 75.2 | 1,227 | 54.8 |
| - Transfer | 47 | 14.3 | 889 | 39.7 |
| - Payments for goods and services | 11 | 3.4 | 32 | 1.4 |
| - Deposit | 8 | 2.4 | 92 | 4.1 |
| - Others | 15 | 4.7 | 0 | 0.0 |
| Total | 326 | 100 | 2,240 | 100 |

3 Data and Statistics in Payment Systems

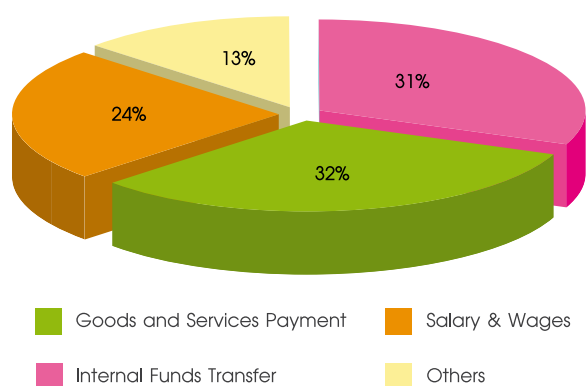
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3.2.7 Internet Banking

The use of Internet Banking service was outshined. Its service users increased 16 percent from 1,852,007 users in 2005 to 2,139,325 in 2006 whereas the value of usage increased 32 percent from 2,722 billion baht in 2005 to 3,584 billion baht in 2006. This pointed toward the augmented popularity of such service owing to the customer's reliability as to its safety system.

The proportion of transactions conducted via Internet Banking service could be sorted out as follows: Goods and Services Payments 32 percent; Intra-bank Funds Transfers 31 percent; Salary and wages 24 percent and others 13 percent.

Figure 25 : Proportions of Internet Banking Volumes in 2006



Source: Bank of Thailand

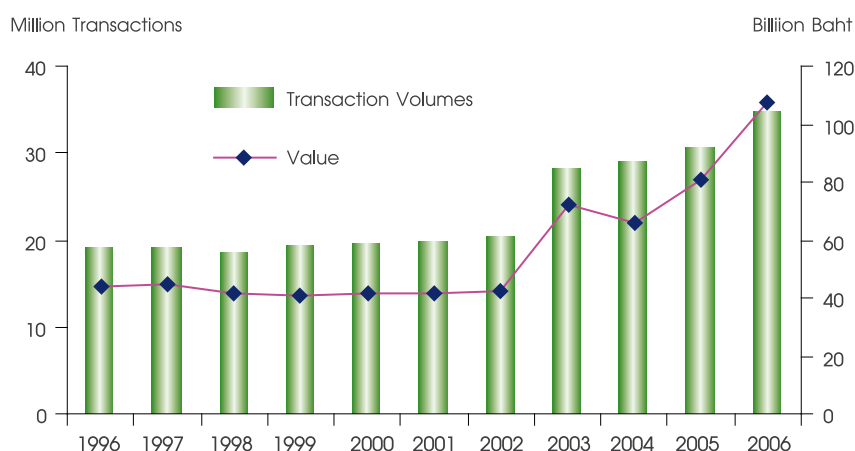
3.2.8 Electronic Money Services

Presently, there are 7 companies and banks which acquired licenses to operate the electronic financial services i.e. Thai Smart Card Co., Ltd., Payment Solution Co., Ltd., True Money Co., Ltd., PaySbuy Co., Ltd., Advanced mPay Co., Ltd., Advance Magic Card Co. Ltd., and Siam Commercial Bank (Public) Co., Ltd.

There are two categories of available services which are On-card Electronic Value and On-network Electronic Value. In 2006, the service providers added the service channels and promotions including public relations on the use of the system. This approach made up the volume of payment transactions of 23.6 million transactions totaling 5,532 million baht. The total amount of cards/accounts at the end of 2006 was 3.2 million cards/accounts.¹⁵

3.3 Postal Payments

Figure 26 : Volume and Value of Funds Transfer Via Pay at Post Services



Source: Thailand Post Co., Ltd.

The elevated requirement for cash transfer and payments, especially the payment for various kinds of billings were essential factors which affected the continuing growth of payment services conducted by Thailand Post Co., Ltd. The company has incessantly developed its services i.e. online connections among branches, online money order and easy access to payment service nationwide. These set off the prominent increases of transfer and payment transactions via postal services in 2006, both in its

¹⁵ The volume and value of payment transactions including the said amount of cards/accounts showed only electronic services which were used as a replacement for cash and could be used for goods and services payments without the limit of usage as to its value and volume and also cash-refillable.

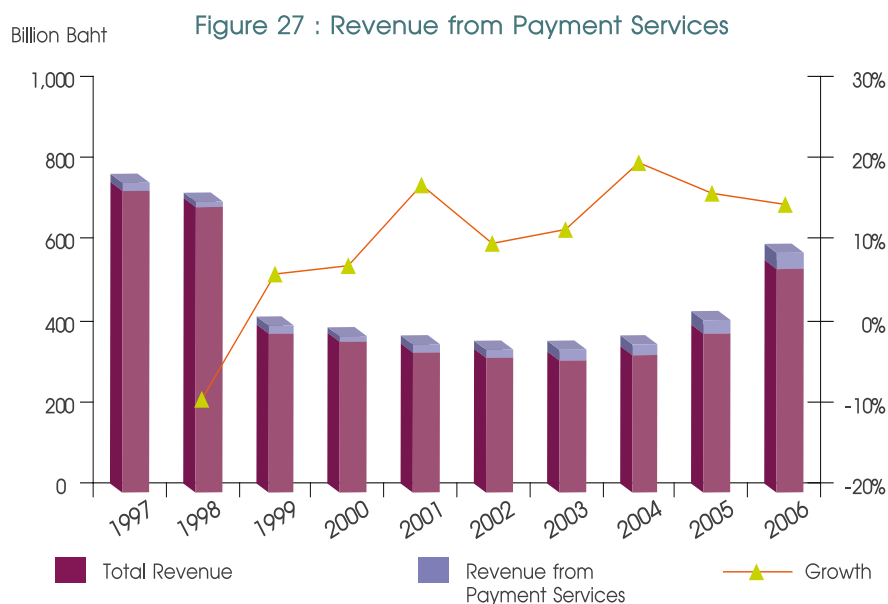
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value and volume. The total amount of transactions increased 13 percent from 30.7 million transactions in 2005 to 34.7 million transactions. As to its value, it increased 32 percent from 81.2 billion baht in 2005 to 107 billion baht in 2006.

Other financial services such as postal cheques and international money order were likely to ceaselessly decrease due to the fact that other services were more convenient and speedy. Such services were online money order, express cash transfer via Western Union.

3.4 Revenue from Payment Services

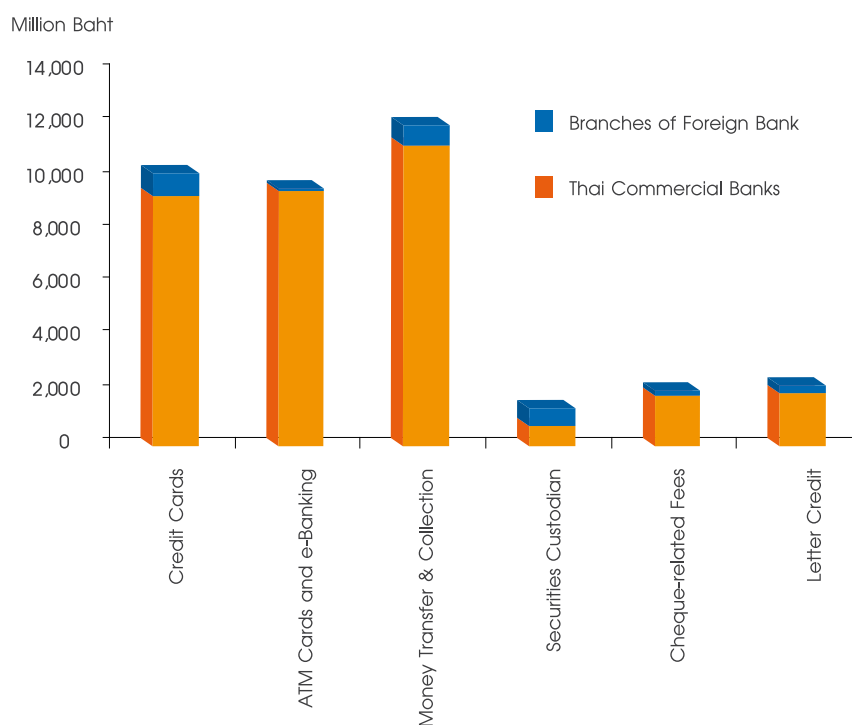


Source: Bank of Thailand

The commercial banks' revenue derived from payment services still increasingly stepped up from 34.4 billion baht in 2005 to 39.2 billion baht in 2006. Its growth proportion was similar to that of the previous year i.e. 14 percent (Figure 27). The largest part of the banks' revenue was from cash transfers and billings, ATM cards and Internet Banking, and credit

cards which could be respectively shown in following percentage—32, 27 and 27 percent whereas the nearly all the revenue of branches of foreign banks originated from credit cards, cash transfers and billings including assets deposit services. The proportion of which were 30, 26, and 25 percent respectively (Figure 28). In spite of this, non-financial institutions were still major competitors in payment service business.

Figure 28 : Revenue from Payment Services, Classified by Types in 2006



Source: Bank of Thailand

4

Abbreviations

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| | |
|---------|--|
| PSC | Payment Systems Committee |
| BOT | Bank of Thailand |
| SNPC | Subcommittee on National Payments Cooperation |
| APACS | Association for Payments Settlement Services |
| ATM | Automated Teller Machine |
| BAHTNET | Bank of Thailand Automated High-value Transfer NETwork |
| BIS | Bank for International Settlements |
| B/C | Bill for Collection |
| CPSS | The Committee on Payment and Settlement Systems |
| CSS | Central Settlement System |
| DVP | Delivery versus Payment |
| ECB | The European Central Bank |
| ECS | Electronic Cheque Clearing System |
| EFTPOS | Electronic Funds Transfer at the Point of Sale |
| E-money | Electronic money |
| EMEAP | The Executives' Meeting of East Asia-Pacific Central Banks |
| EMV | Europay, MasterCard and VISA |
| EPC | The European Payments Council |
| FSAP | Financial Sector Assessment Program |
| GDP | Gross Domestic Product |
| GFMS | Government Fiscal Management Information System |
| ILF | Intraday Liquidity Facilities |
| IMF | International Monetary Funds |
| ITMX | Interbank Transaction Management and Exchange |
| MFT | Multilateral Funds Transfer |
| ORFT | Online Retail Funds Transfer |
| ROSCs | Reports on the Observance of Standards and Codes |
| RTGS | Real Time Gross Settlement |

4 Abbreviations

| | |
|-------|---|
| SEPA | Single Euro Payment Area |
| SIPS | Systemically Important Payment Systems |
| SMART | System for Managing Automated Retail Funds Transfer |
| STP | Straight Through Processing |
| SWIPS | System-Wide Important Systems |
| TSD | Thailand Securities Depository Co., Ltd. |

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| Table 35 | : | Fraud through specific payment channels and payment instruments (million baht) |

TABLE 1 : BASIC STATISTICAL DATA

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 ^P |
|---|-----------|-----------|-----------|------------|------------|-------------------|
| Population (millions) ¹ | 62.30 | 62.80 | 63.08 | 61.97 | 62.42 | 62.83 |
| GDP current price (billion baht) ² | 5,133.5 | 5,450.6 | 5,917.4 | 6,489.8 | 7,087.7 | 7,813.1 |
| GDP per capita (baht) | 82,399.71 | 86,793.68 | 93,807.86 | 104,724.87 | 113,548.54 | 124,353.02 |
| Exchange rate vis-vis US\$ (at year-end) | 44.48 | 43.28 | 41.50 | 39.20 | 41.17 | 36.04 |

Sources : Bank of Thailand, Department of Provincial Administration, National Economic & Social Development Board

¹ Department of Provincial Administration adjusted figure of year 2004

² National Economic & Social Development Board adjusted figures from year 2003-2005

^P Preliminary Data

TABLE 2 : TECHNOLOGICAL INFRASTRUCTURE

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|-------|-------|-------|-------|-------|-------|
| Total fixed network telephone subscribers (millions) | 6.11 | 6.56 | 6.61 | 6.79 | 7.00 | 7.04 |
| Total mobile telephone subscribers (millions) | 8.00 | 17.41 | 22.38 | 27.37 | 32.00 | 41.30 |
| Postpaid | 4.84 | 4.51 | 4.35 | 4.99 | 5.25 | 6.32 |
| Prepaid | 3.16 | 12.90 | 18.03 | 22.38 | 26.75 | 34.98 |
| Total Internet users (millions) | 3.50 | 4.80 | 6.03 | 6.97 | 7.08 | nav. |
| Penetration rates | | | | | | |
| Fixed network telephone (%) | 9.81 | 10.45 | 10.48 | 10.96 | 11.21 | 11.20 |
| Mobile telephone (%) | 12.84 | 27.72 | 35.48 | 44.17 | 51.27 | 65.73 |
| Internet (%) | 5.62 | 7.64 | 9.56 | 11.25 | 11.35 | nav. |

Sources : CAT Telecom Public Company Limited, TOT Public Company Limited, National Electronics and Computer Technology Center

TABLE 3 : NARROW MONEY : M1¹ (AT YEAR-END, BILLION BAHT)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 ^P |
|--|--------|--------|--------|--------|--------|-------------------|
| Currency | 512.47 | 583.09 | 661.79 | 742.27 | 781.70 | 806.38 |
| Held by government | 9.54 | 8.98 | 16.36 | 1.45 | 1.05 | 1.12 |
| Held by commercial banks | 62.05 | 78.09 | 98.48 | 126.99 | 132.65 | 135.11 |
| Held by business and household sector | 436.35 | 490.28 | 539.03 | 598.67 | 630.55 | 652.73 |
| Held by other financial institutions | 4.54 | 5.75 | 7.92 | 15.16 | 17.45 | 17.41 |
| Demand deposits | 226.18 | 293.55 | 328.62 | 380.95 | 385.17 | 457.93 |
| Held by government | 37.85 | 75.64 | 57.19 | 87.86 | 60.05 | 135.67 |
| Held by commercial banks | 49.79 | 50.44 | 51.58 | 47.95 | 62.22 | 59.47 |
| Held by business and household sector | 126.93 | 154.04 | 197.25 | 219.82 | 248.40 | 247.57 |
| Held by other financial institutions | 11.61 | 13.43 | 22.60 | 25.32 | 14.51 | 15.22 |
| Money supply (M1) | 563.28 | 644.31 | 736.28 | 818.49 | 878.95 | 900.30 |
| Currency held by business and household sector as % of M1 | 77% | 76% | 73% | 73% | 72% | 73% |
| Demand deposits held by business and household sector as % of M1 | 23% | 24% | 27% | 27% | 28% | 27% |

Source: Bank of Thailand

¹ Cash in circulation and demand deposits held by business and household sector^P Preliminary data

TABLE 4 : SETTLEMENT MEDIA USED BY NON-BANKS (AT YEAR-END, BILLION BAHT)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 ^P |
|---------------------------------------|--------|--------|--------|--------|--------|-------------------|
| Banknotes and coins ¹ | 436.35 | 490.28 | 539.03 | 598.67 | 630.55 | 652.73 |
| Demand deposits ² | 126.93 | 154.04 | 197.25 | 219.82 | 248.40 | 247.57 |
| Narrow money supply (M1) ³ | 563.28 | 644.31 | 736.28 | 818.49 | 878.95 | 900.30 |
| Broad money supply (M2) ⁴ | 5,228 | 5,360 | 5,611 | 5,907 | 6,407 | 6,791 |

Source: Bank of Thailand

¹ Banknotes and coins held by business and household sector² Demands deposits held by businesses and household sector³ Sum of currency and demand deposits held by business and household sector⁴ M1 plus business and household sector time and savings deposits in the commercial banking system^P Preliminary data

TABLE 5 : SETTLEMENT MEDIA USED BY BANKS (AT YEAR-END, BILLION BAHT)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|--|-------|-------|-------|------|------|------|
| Balances held at central bank | 46 | 48 | 46 | 46 | 57 | 57 |
| Required reserves | 308 | 315 | 331 | 347 | 375 | 405 |
| Free reserves | 1,065 | 1,117 | 1,123 | 822 | 648 | 743 |
| Transferable deposits at other banks | 36 | 37 | 4 | 4 | 6 | 5 |
| Memorandum item: | | | | | | |
| Institutions borrowing from central bank | 17 | 19 | 20 | 63 | 113 | 80 |

Source: Bank of Thailand

TABLE 6 : INDICATORS OF THE USE OF VARIOUS CASHLESS PAYMENT INSTRUMENTS. VOLUME OF TRANSACTIONS (IN THOUSANDS)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 ^P |
|----------------------------|---------|---------|---------|---------|-----------|-------------------|
| Paper-based ¹ : | 74,497 | 79,116 | 84,566 | 86,926 | 87,365 | 127,774 |
| In-house cheque | nav. | nav. | nav. | nav. | nav. | 43,681 |
| Interbank cheque | 74,497 | 79,116 | 84,566 | 86,926 | 87,365 | 84,093 |
| Payment cards : | 456,602 | 557,949 | 654,930 | 919,211 | 1,029,713 | 1,225,653 |
| ATM card ² | 456,602 | 557,949 | 654,930 | 506,791 | 535,298 | 646,304 |
| Debit card ³ | nav. | nav. | nav. | 210,934 | 262,484 | 326,105 |
| Credit card ⁴ | nav. | nav. | nav. | 201,486 | 231,931 | 253,243 |
| Automated : | 106,921 | 113,870 | 122,201 | 146,404 | 161,885 | 177,801 |
| Direct credit ⁵ | 62,702 | 65,506 | 72,115 | 87,977 | 96,828 | 105,731 |
| Direct debit ⁶ | 37,713 | 40,192 | 39,669 | 45,356 | 47,825 | 53,277 |
| SMART | 5,758 | 7,369 | 9,453 | 11,862 | 15,728 | 17,072 |
| BAHTNET ⁷ | 748 | 803 | 964 | 1,209 | 1,504 | 1,721 |

Source: Bank of Thailand

¹ Since 2006, Data include in-house cheque from banks, however, some banks do not report in-house provincial and B/C cheque. Data from some Specialized Financial Institutions are not included.

² Include data from two Special Financial Institutions. Since 2004, debit card data was taken out from ATM card.

³ Data include cash withdrawal transactions from ATM

⁴ Data collected since 2004 and included bank cards/affinity cards, non-bank cards/affinity cards and foreign credit cards used in Thailand.

⁵ Intra-bank pre-authorized direct credit

⁶ Intra-bank pre-authorized direct debit

⁷ Since 2002, data include interbank funds transfer, third party funds transfer, DVP/RVP for securities and Multilateral Funds Transfer.

^P Preliminary data

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TABLE 7: INDICATORS OF THE USE OF VARIOUS CASHLESS PAYMENT INSTRUMENTS. VALUE OF TRANSACTIONS (BILLION BAHT)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 ^P |
|----------------------------|--------|--------|--------|--------|---------|-------------------|
| Paper-based ¹ : | 16,785 | 18,817 | 21,949 | 24,969 | 27,737 | 48,200 |
| In-house cheque | nav. | nav. | nav. | nav. | nav. | 18,080 |
| Interbank cheque | 16,785 | 18,817 | 21,949 | 24,969 | 27,737 | 30,121 |
| Payment cards : | 2,061 | 2,496 | 3,296 | 4,084 | 4,752 | 5,852 |
| ATM card ² | 1,827 | 2,210 | 2,876 | 2,112 | 2,360 | 2,859 |
| Debit card ³ | nav. | nav. | nav. | 1,436 | 1,766 | 2,240 |
| Credit card ⁴ | 234 | 286 | 420 | 536 | 626 | 753 |
| Automated : | 73,672 | 70,205 | 81,983 | 77,829 | 110,457 | 148,778 |
| Direct credit ⁵ | 1,624 | 1,756 | 2,271 | 2,636 | 2,907 | 3,436 |
| Direct debit ⁶ | 965 | 1,080 | 1,186 | 1,146 | 1,111 | 1,238 |
| SMART | 183 | 274 | 385 | 553 | 806 | 802 |
| BAHTNET ⁷ | 70,900 | 67,095 | 78,140 | 73,494 | 105,634 | 143,302 |

Source: Bank of Thailand

¹ Since 2006, Data include in-house cheque from banks, however, some banks do not report in-house provincial and B/C cheque. Data from some Specialized Financial Institutions are not included.

² Include data from two Special Financial Institutions. Since 2004, debit card data was taken out from ATM card.

³ Data include cash withdrawal transactions from ATM

⁴ Data collected since 2004 and included bank cards/affinity cards, non-bank cards/affinity cards and foreign credit cards used in Thailand.

⁵ Intra-bank pre-authorized direct credit

⁶ Intra-bank pre-authorized direct debit

⁷ Since 2002, data include interbank funds transfer, third party funds transfer, DVP/RVP for securities and Multilateral Funds Transfer.

^P Preliminary data

TABLE 8 : NOTES AND COINS (AT YEAR-END, MILLION BAHT)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|-----------------|---------|---------|---------|---------|---------|---------|
| Notes and coins | 512,471 | 583,093 | 661,785 | 742,269 | 781,698 | 806,379 |
| Notes: | 490,242 | 559,169 | 636,508 | 714,650 | 753,256 | 773,847 |
| 500000 baht | 118 | 118 | 119 | 118 | 118 | 118 |
| 1000 baht | 298,453 | 367,403 | 441,411 | 510,434 | 552,606 | 571,739 |
| 500 baht | 115,803 | 108,987 | 105,452 | 105,639 | 99,488 | 94,712 |
| 100 baht | 51,638 | 57,446 | 62,013 | 69,042 | 70,768 | 74,843 |
| 60 baht | 417 | 439 | 447 | 452 | 458 | 1,154 |
| 50 baht | 6,896 | 6,529 | 7,013 | 8,132 | 8,264 | 8,787 |
| 20 baht | 13,161 | 14,648 | 16,536 | 17,350 | 18,087 | 19,038 |
| 10 baht | 3,517 | 3,360 | 3,278 | 3,244 | 3,228 | 3,218 |
| 5 baht | 123 | 123 | 123 | 123 | 123 | 123 |
| 1 baht | 107 | 107 | 107 | 107 | 107 | 107 |
| 50 satang | 9 | 9 | 9 | 9 | 9 | 9 |
| Coins: | 22,229 | 23,924 | 25,277 | 27,619 | 28,442 | 32,532 |

Source: Bank of Thailand

TABLE 9 : INSTITUTIONAL INFRASTRUCTURE¹

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|------------|------------|------------|------------|------------|------------|
| Central Bank | | | | | | |
| Number of Institutions | 1 | 1 | 1 | 1 | 1 | 1 |
| Number of Branches ² | 4 | 4 | 4 | 3 | 3 | 3 |
| Number of Accounts ³ | 1,091 | 1,153 | 1,123 | 1,169 | 992 | 366 |
| Value of Accounts (million baht) ³ | 492,347 | 315,627 | 208,496 | 335,662 | 117,607 | 174,639 |
| Thai Commercial Banks | | | | | | |
| Number of Institutions | 13 | 13 | 13 | 12 | 16 | 15 |
| Number of Branches | 3,683 | 3,650 | 3,730 | 3,925 | 4,228 | 4,701 |
| Number of Accounts | 47,276,792 | 48,810,007 | 49,854,304 | 57,538,837 | 62,416,191 | 68,154,739 |
| Value of Accounts (million baht) | 4,789,139 | 4,897,713 | 5,114,021 | 5,384,984 | 5,684,676 | 5,925,445 |
| Specialized Financial Institutions: | | | | | | |
| Government Savings Bank | | | | | | |
| Number of Institutions | 1 | 1 | 1 | 1 | 1 | 1 |
| Number of Branches | 577 | 586 | 587 | 588 | 588 | 591 |
| Number of Accounts ⁴ | 13,672,897 | 28,824,269 | 30,029,258 | 30,214,359 | 27,078,642 | 25,884,639 |
| Value of Accounts (million baht) | 312,409 | 522,619 | 554,242 | 580,131 | 583,281 | 614,234 |

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| | | | | | | |
|---|------------|------------|------------|------------|------------|------------|
| Government Housing Bank | | | | | | |
| Number of Institutions | 1 | 1 | 1 | 1 | 1 | 1 |
| Number of Branches | 68 | 69 | 71 | 109 | 118 | 108 |
| Number of Accounts | 360,238 | 359,243 | 348,073 | 366,348 | 419,658 | 597,719 |
| Value of Accounts (million baht) | 213,843 | 192,969 | 239,371 | 331,299 | 351,019 | 447,527 |
| Bank for Agriculture and Agricultural Cooperatives | | | | | | |
| Number of Institutions | 1 | 1 | 1 | 1 | 1 | 1 |
| Number of Branches ⁵ | 504 | 515 | 532 | 595 | 596 | 880 |
| Number of Accounts | 10,000,000 | 10,588,203 | 11,014,933 | 12,131,460 | 13,376,015 | 18,989,152 |
| Value of Accounts (million baht) | 196,414 | 275,028 | 307,194 | 341,879 | 415,817 | 467,393 |
| Export-Import Bank of Thailand | | | | | | |
| Number of Institutions | 1 | 1 | 1 | 1 | 1 | 1 |
| Number of Branches | 7 | 8 | 8 | 7 | 11 | 10 |
| Number of Accounts | - | - | - | 3,071 | 3,640 | 3,795 |
| Value of Accounts (million baht) | - | - | - | 3,928 | 8,862 | 6,216 |
| Small and Medium Enterprise Development Bank of Thailand | | | | | | |
| Number of Institutions | - | - | 1 | 1 | 1 | 1 |
| Number of Branches | - | - | 64 | 80 | 80 | 98 |
| Number of Accounts | - | - | nav. | nav. | 9 | 40 |
| Value of Accounts (million baht) | - | - | nav. | nav. | 10,476 | 5,913 |
| Islamic Bank of Thailand | | | | | | |
| Number of Institutions | - | - | 1 | 1 | 1 | 1 |
| Number of Branches | - | - | 6 | 9 | 27 | 27 |
| Number of Accounts | - | - | 9,574 | 25,553 | 86,003 | nav. |
| Value of Accounts (million baht) | - | - | 612 | 1,654 | 4,644 | nav. |
| Foreign Bank Branches | | | | | | |
| Number of Institutions | 18 | 18 | 18 | 18 | 17 | 17 |
| Number of Branches | 18 | 18 | 18 | 18 | 17 | 17 |
| Number of Accounts | 202,372 | 256,338 | 206,866 | 90,877 | 79,034 | 83,180 |
| Value of Accounts (million baht) | 289,578 | 275,133 | 312,518 | 361,147 | 558,619 | 595,896 |
| Post Office | | | | | | |
| Number of Institutions | 1 | 1 | 1 | 1 | 1 | 1 |
| Number of Branches | 1,170 | 1,148 | 1,148 | 1,146 | 1,146 | 1,158 |
| Number of Accounts | - | - | - | - | - | - |
| Value of Accounts (million baht) | - | - | - | - | - | - |

Sources: Bank of Thailand and Thailand Post Co., Ltd.

¹ Data collected since 2000

² Since 2004, Lampang office was merged with Chaing Mai office

³ Exclude regional offices

⁴ Data as of 30 November 2006

⁵ Upgrade Service Units to Sub Branches

TABLE 10 : PAYMENT INSTRUCTIONS HANDLED BY SELECTED INTERBANK SETTLEMENT SYSTEMS. VOLUME OF TRANSACTIONS (IN THOUSANDS)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|--------|--------|--------|--------|--------|--------|
| Paper-based : | 74,497 | 79,116 | 84,566 | 86,926 | 87,365 | 84,093 |
| ECS | 55,186 | 58,139 | 62,020 | 63,845 | 64,065 | 61,445 |
| Provincial Cheques | 19,311 | 20,595 | 19,858 | 16,476 | 16,473 | 15,935 |
| B/C ¹ | neg | 382 | 2,688 | 6,605 | 6,827 | 6,714 |
| Automated : | 9,704 | 14,161 | 24,527 | 32,142 | 45,228 | 59,872 |
| BAHTNET ² | 748 | 803 | 964 | 1,209 | 1,504 | 1,721 |
| SMART (Media Clearing) | 5,758 | 7,369 | 9,453 | 11,862 | 15,728 | 17,072 |
| ORFT-ATM (on-line retail funds transfer) ³ | 3,198 | 5,989 | 14,110 | 19,071 | 27,996 | 41,079 |

Sources: Bank of Thailand and National ITMX Co., Ltd.

¹ Inter-provincial cheques exchanged at the Electronic Clearing House

² Since 2002, data include interbank funds transfer, third party funds transfer, DVP/RVP for securities and Multilateral Funds Transfer.

³ Data collected since 2000

TABLE 11 : PAYMENT INSTRUCTIONS HANDLED BY SELECTED INTERBANK SETTLEMENT SYSTEMS. VALUE OF TRANSACTIONS (BILLION BAHT)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|--|--------|--------|--------|--------|---------|---------|
| Paper-based : | 16,785 | 18,817 | 21,949 | 24,969 | 27,737 | 30,121 |
| ECS | 15,181 | 16,987 | 19,916 | 22,653 | 25,063 | 27,175 |
| Provincial Cheques | 1,604 | 1,814 | 1,923 | 2,039 | 2,371 | 2,617 |
| B/C ¹ | neg | 16 | 111 | 277 | 303 | 329 |
| Automated: | 71,098 | 67,407 | 78,612 | 74,161 | 106,626 | 144,374 |
| BAHTNET ² | 70,900 | 67,095 | 78,140 | 73,494 | 105,634 | 143,302 |
| SMART (Media Clearing) | 183 | 274 | 385 | 553 | 806 | 802 |
| ORFT-ATM (on-line retail funds transfer) ³ | 15 | 38 | 87 | 114 | 187 | 270 |

Sources : Bank of Thailand and National ITMX Co., Ltd.

¹ Inter-provincial cheques exchanged at the Electronic Clearing House

² Since 2002, data include inter-bank funds transfer, third party funds transfer, DVP/RVP for securities and multilateral funds transfer.

³ Data collected since 2000

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TABLE 12 : SECURITIES TRANSFER INSTRUCTIONS HANDLED BY SECURITIES SETTLEMENT SYSTEMS. VOLUME OF TRANSACTIONS (IN MILLIONS)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|------------------------|------|------|------|------|------|------|
| Bond registry system : | | | | | | |
| Equity securities | - | - | - | - | - | - |
| Government securities | neg. | neg. | neg. | neg. | neg. | 0.01 |
| Book-entry system: | | | | | | |
| Equity securities | 1.00 | 1.00 | 1.94 | 2.11 | 2.47 | 2.45 |
| Government securities | neg. | neg. | neg. | 0.05 | 0.08 | 0.06 |

Sources : Bank of Thailand and Thailand Securities Depository Co., Ltd.

TABLE 13 : SECURITIES TRANSFER INSTRUCTIONS HANDLED BY SECURITIES SETTLEMENT SYSTEMS. VALUE OF TRANSACTIONS (BILLION BAHT)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|------------------------|-------|-------|-------|-------|-------|--------|
| Bond registry system : | | | | | | |
| Equity securities | - | - | - | - | - | - |
| Government securities | 612 | 69 | 9 | 8 | 8 | 35 |
| Book-entry system : | | | | | | |
| Equity securities | 177 | 237 | 428 | 722 | 623 | 694 |
| Government securities | 1,016 | 2,091 | 3,053 | 4,558 | 6,167 | 10,666 |

Sources : Bank of Thailand and Thailand Securities Depository Co., Ltd.

TABLE 14 : NUMBER OF PARTICIPANTS IN SELECTED PAYMENT AND SETTLEMENT SYSTEMS

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|------------------------------------|--------|---------|---------|---------|---------|---------|
| BAHTNET | 69 | 65 | 72 | 69 | 68 | 65 |
| ECS | 36 | 36 | 37 | 37 | 38 | 40 |
| Provincial Cheque Clearing | 17 | 17 | 17 | 17 | 18 | 21 |
| B/C ¹ | - | - | 35 | 35 | 37 | 39 |
| SMART | 28 | 27 | 28 | 27 | 26 | 29 |
| Bond registry system : | | | | | | |
| Equity securities | - | - | - | - | - | - |
| Government securities | 27,220 | 157,358 | 142,586 | 200,000 | 235,380 | 247,700 |
| Book-entry system : | | | | | | |
| Equity securities | 56 | 57 | 57 | 50 | 73 | 74 |
| Government securities ² | 1,053 | 1,202 | 1,307 | 3,200 | 5,124 | 79 |

Sources: Bank of Thailand and Thailand Securities Depository Co., Ltd.

¹ Inter-provincial cheques exchanged at the Electronic Clearing House

² Government securities depository services was transferred from Bank of Thailand to Thailand Securities Depository Co., Ltd. in 2006.

TABLE 15 : NUMBER OF ATMS

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|-----------|-------|-------|-------|--------|--------|--------|
| Total | 6,385 | 7,885 | 9,118 | 10,602 | 15,784 | 21,988 |
| Bangkok | - | - | - | 4,314 | 6,373 | 8,675 |
| Central | - | - | - | 3,381 | 5,059 | 6,951 |
| Northeast | - | - | - | 954 | 1,375 | 2,069 |
| North | - | - | - | 941 | 1,367 | 2,072 |
| South | - | - | - | 1,012 | 1,610 | 2,221 |

Source: Bank of Thailand

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TABLE 16 : NUMBER OF EFTPOS TERMINALS

| | 2001 | 2002 ^P | 2003 ^P | 2004 ^P | 2005 ^P | 2006 ^P |
|-------|------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Total | nav. | 61,000 | 76,000 | 84,000 | 102,000 | 208,942 |

Source : Bank of Thailand

^P Preliminary data

Since 2006, data is collected from banks and some credit card companies.

TABLE 17 : NUMBER OF PAYMENT CARDS

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 ^P |
|--------------------------|------------|------------|------------|------------|------------|-------------------|
| Total | 26,350,803 | 32,435,521 | 36,401,196 | 42,457,150 | 49,754,883 | 55,698,708 |
| Credit card ¹ | 2,567,961 | 5,633,363 | 6,734,901 | 8,648,100 | 9,958,571 | 10,900,566 |
| ATM card ² | 23,782,842 | 26,802,158 | 29,666,295 | 25,384,027 | 28,752,512 | 30,845,358 |
| Debit Card | nav. | nav. | nav. | 8,425,023 | 11,043,800 | 13,952,784 |

Source: Bank of Thailand

¹ Since 2002, data include non-bank

² Some banks revised the data in 2004. Data include Government Saving Bank and Government Housing Bank.

^P Preliminary data

TABLE 18 : USE OF POSTAL PAYMENT INSTRUMENTS. NUMBER OF TRANSACTIONS (IN MILLIONS)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|-------|-------|-------|-------|-------|-------|
| Postal payments total | 19.89 | 20.27 | 28.11 | 29.15 | 30.63 | 34.69 |
| Domestic money order total ¹ | 17.50 | 18.06 | 26.26 | 27.97 | 29.66 | 33.77 |
| Domestic postal order | 2.33 | 2.16 | 1.80 | 1.12 | 0.93 | 0.86 |
| Postcheque ² | 0.00 | 0.00 | - | - | - | - |
| International money order | 0.06 | 0.06 | 0.05 | 0.06 | 0.04 | 0.03 |
| Incoming | 0.06 | 0.05 | 0.05 | 0.06 | 0.04 | 0.03 |
| Outgoing | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | neg. |

Source: Thailand Post Co.,Ltd.

¹ Include domestic money order and Pay at Post

² Postcheque has been terminated since 2002

TABLE 19 : USE OF POSTAL PAYMENT INSTRUMENTS. VALUE OF TRANSACTIONS (BILLION BAHT)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|-------|-------|-------|-------|-------|--------|
| Postal payments total | 41.76 | 42.35 | 72.37 | 65.82 | 81.17 | 107.06 |
| Domestic money order total ¹ | 40.18 | 40.77 | 70.77 | 64.37 | 80.19 | 105.61 |
| Domestic postal order | 0.65 | 0.63 | 0.58 | 0.29 | 0.21 | 0.19 |
| Postcheque ² | 0.03 | 0.01 | - | - | - | - |
| International money order | 0.90 | 0.94 | 1.02 | 1.16 | 0.77 | 0.63 |
| Incoming | 0.88 | 0.90 | 0.98 | 1.10 | 0.76 | 0.62 |
| Outgoing | 0.02 | 0.04 | 0.05 | 0.06 | 0.01 | 0.01 |

Source: Thailand Post Co.,Ltd.

¹ Include domestic money order and Pay at Post

² Postcheque has been terminated since 2002

TABLE 20 : SOURCES OF PAYMENT REVENUES OF THAI COMMERCIAL BANKS (MILLION BAHT)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|-------------------------------|--------|--------|--------|--------|--------|--------|
| Total | 17,744 | 19,589 | 22,280 | 26,994 | 31,431 | 36,291 |
| Credit card | 5,448 | 6,489 | 6,606 | 7,246 | 8,007 | 9,792 |
| ATM card and e-banking | 4,327 | 5,209 | 6,376 | 7,593 | 9,107 | 9,976 |
| Money transfer and collection | 4,605 | 4,877 | 6,018 | 8,420 | 10,520 | 11,711 |
| Securities custodian | 563 | 313 | 348 | 414 | 548 | 756 |
| Cheque-related fee | 1,232 | 1,106 | 1,260 | 1,239 | 1,100 | 1,965 |
| Letter of credit | 1,569 | 1,595 | 1,672 | 2,082 | 2,149 | 2,091 |

Source : Bank of Thailand

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TABLE 21 : SOURCES OF PAYMENT REVENUES OF FOREIGN BANK BRANCHES
(MILLION BAHT)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|-------------------------------|-------|-------|-------|-------|-------|-------|
| Total | 2,783 | 2,852 | 2,651 | 2,767 | 2,936 | 2,955 |
| Credit card | 931 | 1,076 | 557 | 633 | 717 | 873 |
| ATM card and e-banking | 79 | 110 | 185 | 92 | 60 | 59 |
| Money transfer and collection | 830 | 806 | 794 | 810 | 788 | 763 |
| Securities custodian | 491 | 593 | 745 | 865 | 808 | 732 |
| Cheque-related fee | 44 | 38 | 53 | 61 | 206 | 244 |
| Letter of credit | 408 | 229 | 317 | 306 | 357 | 284 |

Source : Bank of Thailand

TABLE 22 : DAILY AVERAGES OF BOT PAYMENT SERVICES. VOLUME OF
TRANSACTIONS (TRANSACTIONS)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|----------------------------|---------|---------|---------|---------|---------|---------|
| BAHTNET ¹ | 3,042 | 3,277 | 3,904 | 4,957 | 6,138 | 6,997 |
| ECS | 224,335 | 237,302 | 251,093 | 260,592 | 261,492 | 252,858 |
| Provincial Cheque Clearing | 78,500 | 83,993 | 80,396 | 67,212 | 67,236 | 65,574 |
| B/C ² | nav. | nav. | 10,882 | 26,959 | 27,865 | 27,630 |
| SMART | 23,517 | 30,051 | 38,272 | 48,415 | 64,198 | 70,255 |

Source: Bank of Thailand

¹ Since 2002, data include interbank funds transfer, third party funds transfer, DVP/RVP for securities and Multilateral Funds Transfer.² Inter-provincial cheques exchanged at the Electronic Clearing House

TABLE 23 : DAILY AVERAGES OF BOT PAYMENT SERVICES.VALUE OF TRANSACTIONS (BILLION BAHT)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|----------------------------|------|------|------|------|------|------|
| BAHTNET ¹ | 288 | 274 | 316 | 302 | 431 | 583 |
| ECS | 62 | 69 | 81 | 92 | 102 | 112 |
| Provincial Cheque Clearing | 6.5 | 7.4 | 7.8 | 8.3 | 9.7 | 10.8 |
| B/C ² | nav. | nav. | 0.5 | 1.1 | 1.2 | 1.4 |
| SMART | 0.8 | 1.1 | 1.6 | 2.3 | 3.3 | 3.3 |

Source: Bank of Thailand

¹ Since 2002, data include interbank funds transfer, third party funds transfer, DVP/RVP for securities and Multilateral Funds Transfer.

² Inter-provincial cheques exchanged at the Electronic Clearing House

TABLE 24 : PEAK DAY FIGURES OF BOT PAYMENT SERVICES. VOLUME OF TRANSACTIONS (TRANSACTIONS)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|----------------------------|---------|---------|---------|---------|---------|---------|
| BAHTNET ¹ | 4,908 | 5,109 | 6,115 | 7,372 | 10,165 | 13,421 |
| ECS | 525,726 | 629,130 | 546,858 | 539,013 | 597,938 | 590,830 |
| Provincial Cheque Clearing | 196,266 | 229,252 | 227,501 | 124,743 | 144,682 | 141,274 |
| B/C ² | nav. | nav. | 120,104 | 127,845 | 128,748 | 124,162 |
| SMART | 118,440 | 155,623 | 193,870 | 226,030 | 234,684 | 300,353 |

Source: Bank of Thailand

¹ Since 2002, data include interbank funds transfer, third party funds transfer, DVP/RVP for securities and Multilateral Funds Transfer.

² Inter-provincial cheques exchanged at the Electronic Clearing House

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TABLE 25 : PEAK DAY FIGURES OF BOT PAYMENT SERVICES. VALUE OF TRANSACTIONS (BILLION BAHT)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|----------------------------|------|-------|-------|-------|-------|---------|
| BAHTNET ¹ | 501 | 967.2 | 525.8 | 509.0 | 723.1 | 1,378.4 |
| ECS | 118 | 160.3 | 160.0 | 178.0 | 209.3 | 217.2 |
| Provincial Cheque Clearing | 12.2 | 14.8 | 14.6 | 14.2 | 16.4 | 18.3 |
| B/C ² | nav. | nav. | 3.7 | 4.1 | 4.6 | 4.7 |
| SMART | 4.9 | 8.0 | 9.5 | 10.1 | 16.6 | 25.5 |

Source: Bank of Thailand

¹ Since 2002, data include inter-bank funds transfer, third party funds transfer, DVP/RVP for securities and multilateral funds transfer.

² Inter-provincial cheques exchanged at the Electronic Clearing House

TABLE 26 : USE OF CREDIT CARD AND DEBIT CARDS VIA EFTPOS ¹ (MONTHLY AVERAGE, BAHT)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|-------------|------|------|-------|-------|-------|-------|
| Credit card | nav. | nav. | 4,065 | 3,203 | 3,248 | 3,463 |
| Debit Card | nav. | nav. | nav. | nav. | nav. | 73 |

Source : Bank of Thailand

¹ Domestic and oversea spending of Thai credit cards and Thai debit cards via EFTPOS.

TABLE 27 : CASH WITHDRAWAL VIA ATM (MONTHLY AVERAGE, BAHT)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|------------|------|------|------|------|------|-------|
| ATM card | nav. | nav. | nav. | nav. | nav. | 7,724 |
| Debit Card | nav. | nav. | nav. | nav. | nav. | 7,329 |

Source : Bank of Thailand

TABLE 28 : USE OF MOBILE BANKING¹

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 ^P |
|--------------------------------------|------|------|------|--------|---------|-------------------|
| No. of agreements | nav. | nav. | nav. | 18,312 | 85,565 | 133,419 |
| Volume of transactions | nav. | nav. | nav. | 22,704 | 329,769 | 355,048 |
| Value of transactions (million baht) | nav. | nav. | nav. | 745 | 622 | 392 |

Source : Bank of Thailand

¹ Data collected since 2004

Since 2005, data include mobile banking transactions using credit cards, debit cards and account numbers.

^P Preliminary data.

TABLE 29 : USE OF INTERNET BANKING¹

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 ^P |
|--------------------------------------|-----------|-----------|------------|-----------|------------|-------------------|
| No. of agreements | 97,101 | 254,989 | 348,965 | 1,581,877 | 1,852,007 | 2,139,325 |
| Volume of transactions ² | 6,243,407 | 9,990,969 | 10,336,929 | 4,872,407 | 11,099,729 | 15,488,741 |
| Value of transactions (billion baht) | 8.6 | 730.5 | 638.0 | 1,139.2 | 2,722.4 | 3,584.0 |

Source: Bank of Thailand

¹ Data collected since 2000

² Since 2004, enquiry transactions were excluded

^P Preliminary data

TABLE 30 : USE OF ORFT VIA ATM AND COUNTER. VOLUME OF TRANSACTIONS (IN THOUSANDS)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|----------------------|-------|-------|--------|--------|--------|--------|
| Total ORFT | 3,198 | 5,989 | 14,110 | 19,071 | 27,996 | 43,279 |
| ATM | 3,198 | 5,989 | 14,110 | 19,071 | 27,996 | 41,079 |
| Counter ¹ | nav. | nav. | nav. | nav. | nav. | 2,200 |

Source: National ITMX Co., Ltd.

¹ Data collected since 2006.

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**TABLE 31 : USE OF ORFT VIA ATM AND COUNTER. VALUE OF TRANSACTIONS
(BILLION BAHT)**

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|----------------------|------|------|------|------|------|------|
| Total ORFT | 15 | 38 | 87 | 114 | 187 | 293 |
| ATM | 15 | 38 | 87 | 114 | 187 | 270 |
| Counter ¹ | nav. | nav. | nav. | nav. | nav. | 23 |

Source: National ITMX Co., Ltd.

¹ Data collected since 2006.

**TABLE 32 : BILL PAYMENT AT BANK COUNTERS. VOLUME OF TRANSACTIONS
(IN THOUSANDS)**

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 ^P |
|---------------------------------|------|------|------|------|------|-------------------|
| Total bill payment ¹ | nav. | nav. | nav. | nav. | nav. | 66,889 |
| Cash | nav. | nav. | nav. | nav. | nav. | 58,806 |
| Cheque | nav. | nav. | nav. | nav. | nav. | 1,457 |
| Others | nav. | nav. | nav. | nav. | nav. | 6,626 |

Source: Bank of Thailand

^P Preliminary data. Data will be revised later due to incompleted report from some banks.

¹ Data collected from banks since 2006.

**TABLE 33 : BILL PAYMENT AT BANK COUNTERS. VALUE OF TRANSACTIONS
(BILLION BAHT)**

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 ^P |
|---------------------------------|------|------|------|------|------|-------------------|
| Total bill payment ¹ | nav. | nav. | nav. | nav. | nav. | 3,909 |
| Cash | nav. | nav. | nav. | nav. | nav. | 898 |
| Cheque | nav. | nav. | nav. | nav. | nav. | 1,904 |
| Others | nav. | nav. | nav. | nav. | nav. | 1,107 |

Source: Bank of Thailand

^P Preliminary data. Data will be revised later due to incompleted report from some banks.

¹ Data collected from banks since 2006.

TABLE 34 : USE OF E-MONEY ¹

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|--------------------------------------|------|------|------|------|------|------------|
| No. cards/accounts | nav. | nav. | nav. | nav. | nav. | 3,190,135 |
| Volume of transactions | nav. | nav. | nav. | nav. | nav. | 23,644,155 |
| Value of transactions (million baht) | nav. | nav. | nav. | nav. | nav. | 5,532 |

Source: Bank of Thailand

¹ Data collected since 2006 and excluded top-up cards.

TABLE 35 : FRAUD THROUGH SPECIFIC PAYMENT CHANNELS AND PAYMENT INSTRUMENTS¹ (MILLION BAHT)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 ^P |
|----------------------------------|------|------|------|------|------|-------------------|
| Total fraud | nav. | nav. | nav. | nav. | nav. | 322 |
| Payment channels ² | nav. | nav. | nav. | nav. | nav. | 89 |
| Payment instruments ³ | nav. | nav. | nav. | nav. | nav. | 233 |

Source: Bank of Thailand

¹ Data collected from banks, some special financial institutions and some credit card companies since 2006.

² Banks report only final result. Fraud through specific payment channels include phone banking, mobile banking, internet banking, pass book and other channels.

³ Banks report only final result. Fraud via specific payment instruments include cheque, credit card, ATM card, Debit card, "prepaid card and other cards.

^P Preliminary data

| Symbols Appeared in the Tableused | Meanings |
|-----------------------------------|---|
| "-" | No data |
| "nav." | Data not collected or not available. |
| "neg." | Data have very low value as compare to other data in the same table |
| "O" | Data equal to or near zero |

Table 1

- Gross Domestic Products at current price.
- Foreign exchange rate are annual averages.

Table 6-7

- From 2006, data on cheque consists of in-house cheque and Inter-bank cheque including data on all commercial banks and 3 specialized financial institutions.
- Data on Credit Transfer is based on intra-bank pre-authorized direct credit transactions.
- Data on Direct Debit is based on intra-bank pre-authorized direct debit transactions.
- From 2002, data on BATHNET includes interbank funds transfer, third parties funds transfer, Multilateral Funds Transfer.
- From 2003, data on credit cards transactions includes data from non-financial institutions in accordance with BOT's Notification No. FPB.(21) C.207/2545
- From 2004, data on value and volume of debit card usage was separated form that of ATMs.
- From 2004, data on volume of credit card transactions included transactions made on cards issued by issuing banks, affinity company, and acquiring banks.

| | |
|-------------|---|
| Table 9 | <ul style="list-style-type: none"> Data excludes the number and value of accounts at the Bank of Thailand branches. |
| Table 10-11 | <ul style="list-style-type: none"> Data on ATM-ORFT were available from 2000. Data on inter-provincial cheques includes only inter-provincial cheques exchanged at the Electronic Clearing House in Bangkok. From 2002, data on BATHNET includes of interbank funds transfer, third party funds transfer, and Multilateral Funds Transfer. |
| Table 12-13 | <ul style="list-style-type: none"> Equity Securities Settlement is processed through the scripless Book-entry System only. |
| Table 16 | <ul style="list-style-type: none"> From 2006, the number of EFTPOS includes data of the commercial banks and some of credit card companies. |
| Table 17 | <ul style="list-style-type: none"> From 2002, data on credit cards has been based on new reporting requirements issued on BOT's Notification No. FPB(21)C.207/2545 dated 12 November 2002. |
| Table 18-19 | <ul style="list-style-type: none"> Data on domestic money order includes domestic money order service and Pay at Post Service. |
| Table 22-25 | <ul style="list-style-type: none"> Data on inter-provincial cheques include on cheques exchanged at Electronic Clearing House in Bangkok. From 2002, data on BATHNET includes interbank funds transfer, third party funds transfer and Multilateral Funds Transfer. |
| Table 29 | <ul style="list-style-type: none"> From 2004, data of internet banking transactions excludes enquiry transactions. |
| Table 35 | <ul style="list-style-type: none"> Data surveyed from commercial banks and some credit card companies. |

Payment Systems Report

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This report is shown in the Bank of Thailand's website
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Payment System Division is responsible for explanations and opinions
stated in this payment systems report.

The use of any piece of information and number indicated herein must
refer to this report.

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