

## 2. Payment Systems Oversight

Payment systems is the one type of Financial Market Infrastructures (FMI) that are crucial to the maintenance of economic and financial stability along with the conduct of economic and business activities of corporates and the general public. Thus, emphasis must be placed on oversight of Systemically Important Payment Systems (SIPS), Prominently Important Retail Payment Systems (PIRPS), and various e-Payment services. This requires assessment and monitoring of SIPS and PIRPS together with supervision of e-Payment services to ensure stability, safety and efficiency of Payment Systems in Thailand.

### 2.1 Oversight of Systemically Important Payment Systems

The BOT has responsibility to oversee important payment systems, which are classified into two categories according to international standards importance to overall financial stability, and appropriate level of oversight needed. The two categories of overseen important payment systems are as follows.

1) Systemically Important Payment System (SIPS) in Thailand – the BAHTNET which is under the operation of the BOT. The BAHTNET is an infrastructure for large value funds transfer between financial institutions in Thailand. In 2014, the total value of transfers through the BAHTNET reached 757.9 trillion Baht, equivalent to 62.43 times of GDP.

2) Prominently Important Retail Payment Systems (PIRPS) included the Imaged Cheque Clearing and Archive System (ICAS) operated by the BOT and the Interbank Transaction Management and Exchange (ITMX) operated by National ITMX Co., Ltd. (NITMX). The total value of transfers through ICAS and ITMX amounted to 37.9 trillion Baht and 5.6 trillion Baht, equivalent to 3.12 and 0.46 times of GDP, respectively.

To ensure that the SIPS and PIRPS are safe, reliable and equipped with appropriate risk management standards according to the Principles for Financial Market Infrastructures (PFMI), a Payment Systems Oversight Framework, developed by the BOT, was approved by the PSC in 2014. The framework provides guidelines for the BOT in overseeing stability of payment systems. The PSC also agreed to the publication of this framework on the BOT website.

The aforementioned framework stipulates oversight methods and scopes as well as reporting guidelines to ensure that payment systems are safe, able to operate continuously, operated with appropriate and efficient management framework, and able to prevent systemic risks. Key implementation areas include the followings.

- 1) Analyzing, monitoring and assessing risks in SIPS and PIRPS such as liquidity risk, operational risk and settlement risk, which could result in potential systemic risk in the payment systems;
- 2) Assigning payment systems operators to undertake self assessment exercises according to the PFMI; and
- 3) On-site assessment of service providers to assess potential risks which could arise during processing and provision of services.

The BOT would report findings of its supervision and oversight activities together with assessment of payment systems stability to the PSC every six months.

In 2014, the BOT arranged for on-site assessment of BAHTNET operations concerning management of operational risks. Cooperative oversight with other Financial Market Infrastructures (FMI) regulators including domestic authorities namely the Securities and Exchange Commission Thailand (SEC) and international authorities namely the Hong Kong Monetary Authority. The effort helped secure sharing of information on FMI oversight information such as international standards, key risks to monitor due to systems connectivity or common membership, and formulation of regulations, conditions and measures to address risks in a well-aligned manner. Moreover, the systems operator of ICAS and ITMX requested to conduct self assessment to comply with PFMI.

### **Box 5: Findings of oversight activities on Thailand's key payment systems according to the Principles for Financial Market Infrastructures (PFMI)**

In 2014, the BOT conducted the following oversight activities according to the PFMI.

#### **(1) On-site assessment of the BAHTNET**

The BOT carried out operational risk assessment of the BAHTNET according to the PFMI (Principle 17: Operational Risk) in two areas, as follows 1) Business Continuity Management (BCM) and 2) operational reliability and availability, to ascertain that the system operated with suitable operational risk management and is able to provide services smoothly during both normal times and emergency.

In summary, the BAHTNET was deemed to possess reliable business continuity management as well as appropriate measures and processes in dealing with operational risks. Furthermore, the BAHTNET could offer smooth services and efficiency in line with international standards. Average system availability in 2014 recorded at 99.74 percent and there was no problem requiring urgent attention.

In this connection, to further align monitoring and managing of operational risks to the PFMI, the BOT would arrange for reporting of BAHTNET business continuity management to the PSC every six months.

#### **(2) Preparation of the BAHTNET for external assessment**

The BOT made steady progress to ensure that the BAHTNET, Thailand's main infrastructure for financial transactions and Systemically Important Payment System, could operate according to 18 principles of the PFMI such that it would be ready for external assessment by the IMF and the World Bank who are tasked with assessment of payment systems according to the PFMI. This would ensure that the BAHTNET's operations are in line and accordance with international standards, stable, able to facilitate financial and money market transactions, and supportive of sustainable economic growth.

Important milestones that the BOT achieved in preparing the BAHTNET for external assessment included arranging for a self assessment for the BAHTNET according to the PFMI in 2013 and formulating a risk management process that better align with international standards, for example, reducing recovery time to two hours, updating various guidelines and documentation to be more current, and reporting work progress to the PSC every six months.

### **(3) Self assessment of the ICAS**

The BOT conducted a self assessment of the ICAS, a Prominently Important Retail Payment Systems, according to 14 principles adapted for PFMI for Prominently Important Retail Payment Systems. In short, the ICAS' overall operation and risk management was in line with the PFMI and there was no problem requiring urgent attention.

In this regard, the BOT would consider some additional steps to take in order to better align the ICAS to international standards, for example, arranging for a test of its Business Continuity Plan, including different scenarios, to enhance the efficiency of system management during emergency.

### **(4) Self assessment of the ITMX**

The BOT assigned the NITMX to conduct a self assessment of the ITMX which is one of Thailand's PIRPS according to 14 principles adapted for PFMI. The BOT, as oversight authority, would review the self assessment findings to be used during the on-site examination of the ITMX in the next periods.

## 2.2 Supervision of payment system service providers

---

Recently, there was rapid expansion of e-Payment services along with new challenges associated with more complex and modern service types and technology. Moreover, e-Payment service providers became more diversified, including bank and non-bank service providers.

The BOT supervised service providers to ensure suitable risk management in the provision of financial transaction services and reliable and safe e-Payment services, as well as enhance the business sector's competitiveness and the public sector's services. In this regard, the BOT supervised key e-Payment service providers according to various legislations, including e-Money service providers according to the Notification of the Revolution Council No. 58 (e-Money businesses) and the the Royal Decree on Regulating Electronic Payment Services B.E. 2551 (2008).

### 2.2.1 Supervision according to the Notification of the Revolution Council No. 58 (e-Money businesses)

The BOT supervised eight non-bank e-Money service providers, authorized by the Notification of the Revolution Council No. 58 (e-Money businesses) dated 4 October, 2004.

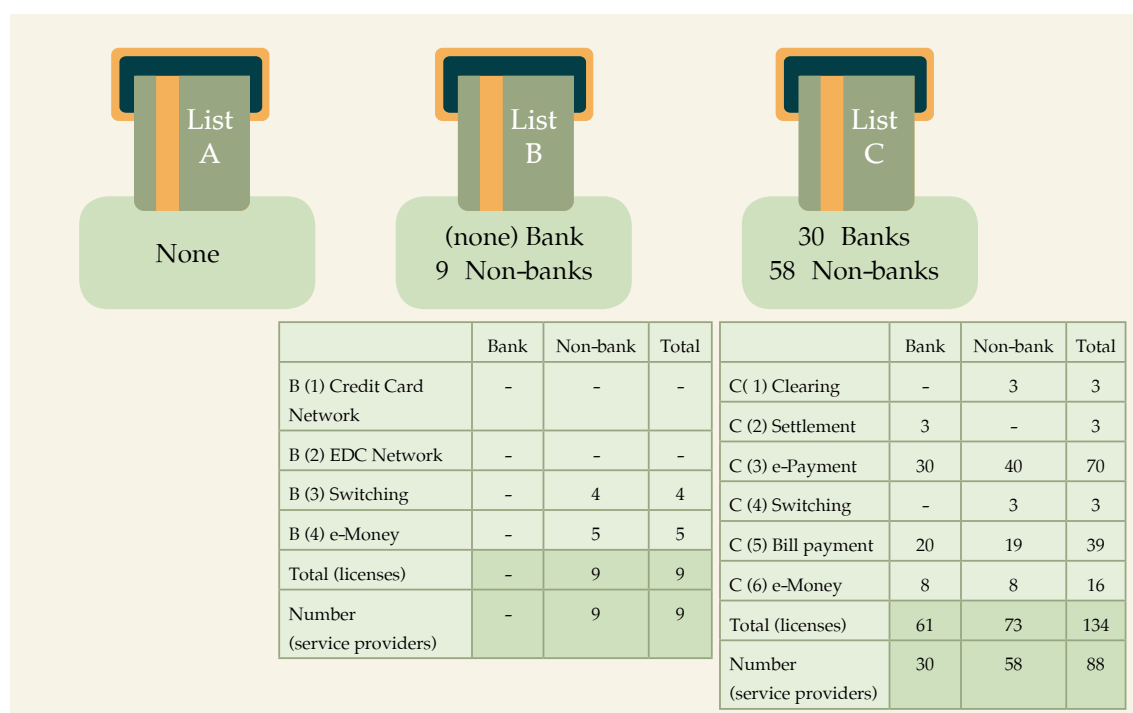
In 2014, the BOT considered revisions to the regulations and conditions pertaining to e-Money business with the aim to better conform to the changing business environment and enhance businesses' financial soundness, reducing the risk and potential impact on users. These revisions included regulation on capital requirements for service providers, registration process for users, expansion of e-Money business scope to include foreign currency usage abroad, and allowance of other business activities relating or pertaining to e-Payment. Moreover, there were other administrative regulatory adjustments to allow more appropriate and flexible regulatory compliance by businesses. In this regard, feedback was received from service providers whereby the BOT would proceed to make formal announcements in the next periods.

## 2.2.2 Supervision according to the Royal Decree on Regulating Electronic Payment Services B.E. 2551 (2008)

The BOT has a legal mandate to supervise e-Payment service providers according to the Royal Decree on Regulating Electronic Payment Services B.E. 2551 (2008) under the Electronic Transactions Act B.E. 2544 (2001). According to the Royal Decree, there are three categories of supervisory levels, namely, List A for businesses that are required to make notification to the BOT, List B for businesses that are required to make registration with the BOT and List C for businesses that are required to acquire licenses before providing services. In 2014, the BOT conducted oversight activities of e-Payment service providers according to the Royal Decree as follows.

(1) Considered applications for List B licenses and submitted recommendations for List C licenses to the Electronic Transactions Commission (ETC) for approval. At the end of 2014, there were nine List B service providers and 88 List C service providers, including 30 banks and 58 non-banks. The total number of licenses issued was 134. Two List C service providers cancelled their licenses. There was still no List A service provider.

**Figure 4: Number of e-Payment service provider classified by business type**



Source: Bank of Thailand

Data as of 31 December 2014



Most service providers receiving their licenses in 2014 were e-Payment service providers through any device or network (payment gateway). Moreover, some service providers requested approval to offer rather interesting services such as automatic payment machines.

(2) Regulated and supervised e-Payment service providers in complying with relevant Royal Decrees and related Notifications and reported findings of misconduct or non-compliance to the ETC on a regular basis. In 2014, there were 23 cases of misconduct or non-compliance.

(3) Proceeded with revisions of rules, regulations and conditions in providing e-Payment services that would be better aligned with the current economic environment as well as changes in business models. Examples included allowing greater flexibility in the regulations and formulating clear and detailed payment agent supervisory standards. In this connection, the BOT proposed related Notifications for stakeholders' feedback on 14 August 2014 and is in the process of making adjustments according to the comments before submitting to the ETC for approval.

(4) Drafted the Royal Decree under the Electronic Transactions Act B.E. 2544 (2001) on the supervision of e-Payment services provided by Specialized Financial Institutions (SFIs) as tasked by the ETC. The effort aimed at strengthening confidence in IT, protecting consumers, enhancing the services' efficiency and competitiveness, as well as ensuring that SFIs that offer e-Payment services would be supervised by the ETC in the same manner and standard as other service providers, both bank and non-bank. The draft was approved by the Cabinet and is presently being considered by the Council of State.