Foreign exchange policy and intervention in Thailand

Financial Markets Operations Group
Bank of Thailand

I. Introduction

This paper summarises information on how Thailand conducted its foreign exchange rate policy after the float. A special emphasis is given to intervention motives and techniques. It also outlines some foreign exchange measures used in deterring speculative flows.

Since 2 July 1997, Thailand has adopted a managed-float exchange rate regime, replacing the basket-peg regime which had been in operation since 1984. The value of the baht has since then been largely determined by market forces. The Bank of Thailand manages the exchange rate by intervening in the foreign exchange market from time to time in order to prevent excessive volatilities in the markets, while fundamental trends are accommodated. In other words, movements in the exchange rates which are in line with the changes in economic fundamentals and financial development would only be smoothed and not resisted.

The managed-float exchange rate regime together with the inflation targeting framework, which was formally introduced in May 2000 with short-term interest rates as the operating target, has worked well for Thailand. The inflation target performs the role of a new nominal anchor for monetary policy while flexibility in exchange rates helps absorb shocks to the economy.

Since the adoption of the managed-float exchange rate regime, the Thai baht has generally moved in line with economic fundamentals. However, extreme exchange rate movements have occasionally occurred due to various causes. As a result, different combinations of techniques and tactics were used depending on the market conditions. Broadly speaking, the Bank of Thailand focuses on containing excessive and persistent exchange rate volatility and intervenes when exchange rate movements appear to be inconsistent with fundamental changes. Short-term volatility is not a major concern unless it persists and becomes a threat to stability.

The rest of this paper is organised as follows. The next two sections briefly describe recent developments in the foreign exchange market and an institutional setup as background information. Section IV then explains why the Bank of Thailand intervenes in the foreign exchange market, while section V elaborates how foreign exchange policy is carried out. The last section on the information disclosure describes our view on transparency issue.

II. Developments in the foreign exchange market after the float

Since the float, exchange rates have generally moved in line with economic fundamentals. Figure 1 shows how the baht has moved against the US dollar since the float. The baht/US dollar exchange rate fluctuated widely from 36-56 baht/US dollar. However, in the past few years, the exchange rate has been relatively stable as reflected in the considerably lower volatilities.[1] In effective terms, however, the NEER and REER, shown in Figure 2, were relatively stable as most regional currencies had generally moved in tandem.

---

[1] Volatility is measured by the annualised standard deviation of daily returns (percentage change in exchange rates).

Figure 1

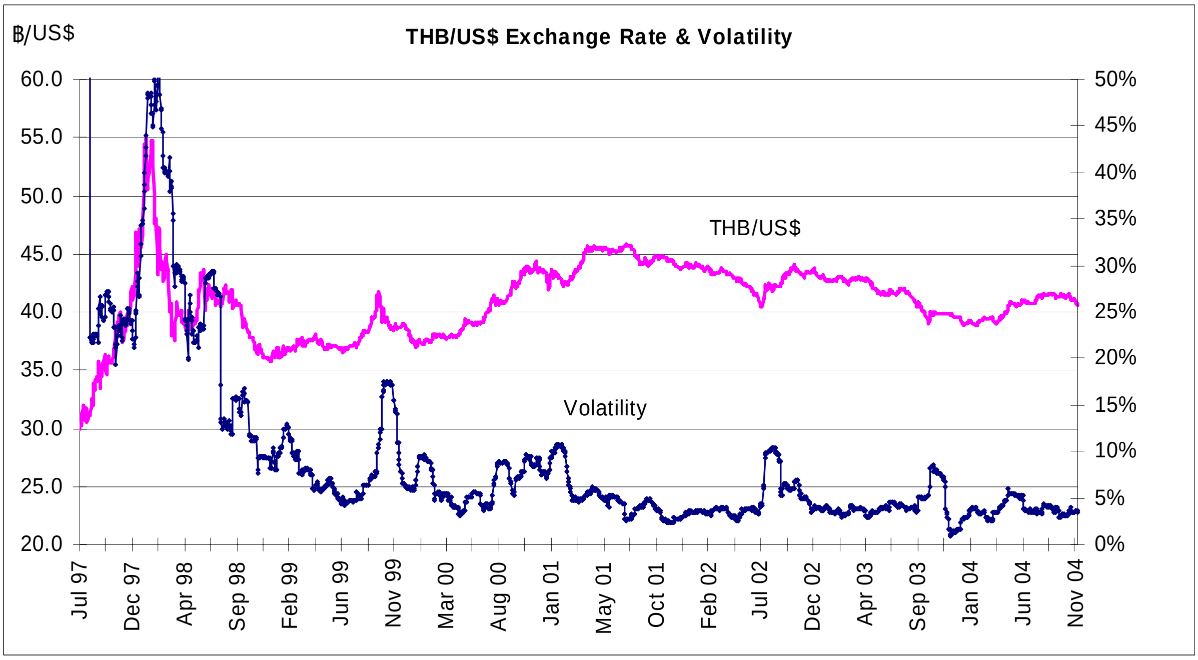
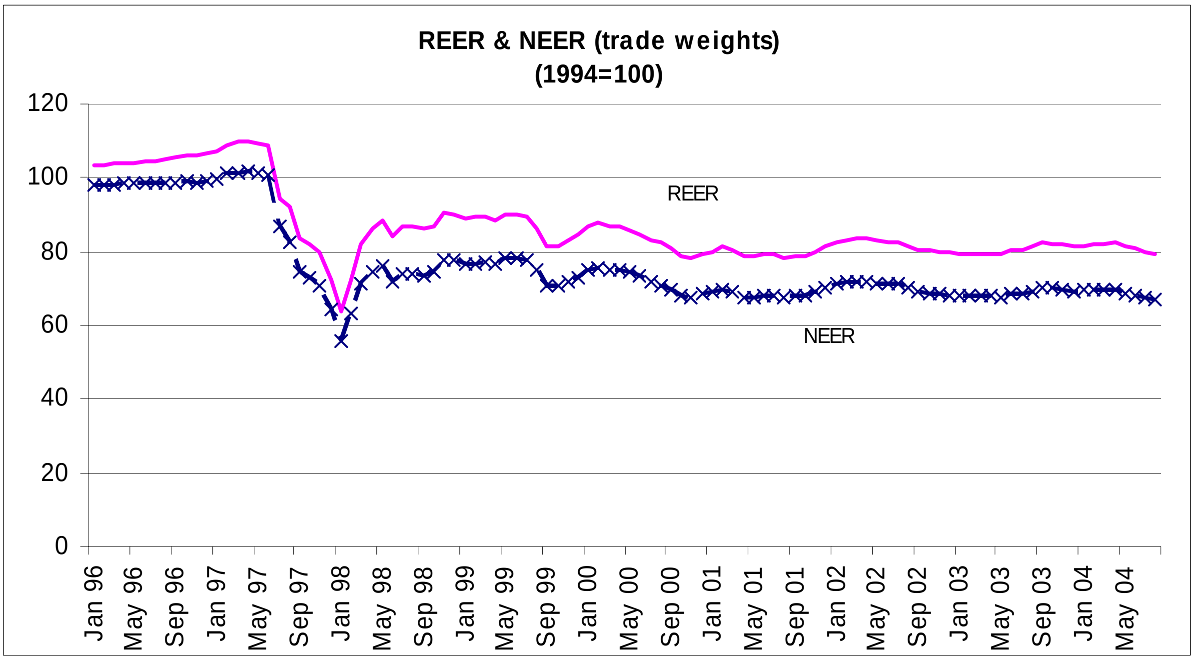


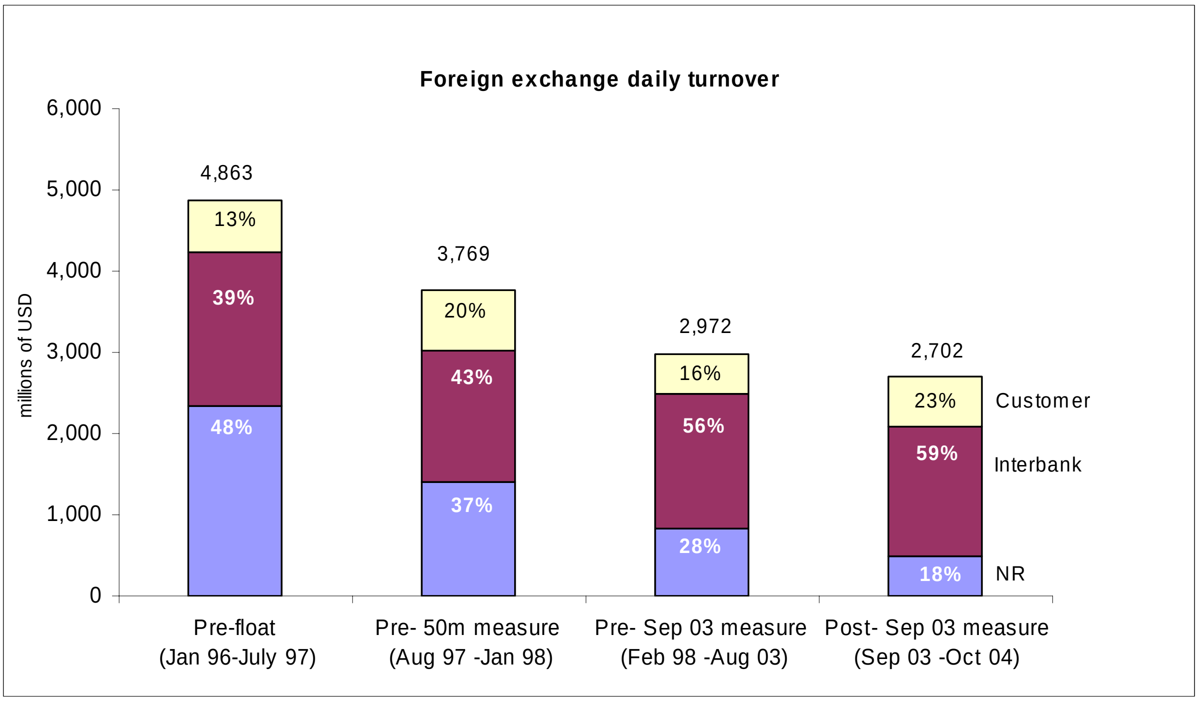
Figure 2



Offshore financial institutions have long been major players in the Thai foreign exchange market since there are no regulations on foreign exchange trading in the spot market. Offshore players have always accounted for a significant share of foreign exchange market volume until recently (September 2003), when restrictions were imposed on non-resident baht accounts (NRBA) and short-term liquidity management following a surge in capital inflows which were deemed speculative in nature. As can be seen in Figure 3, non-residents accounted for around half of the average daily trading turnover in all foreign exchange transactions (spot + forward + foreign exchange swap) before the baht was floated. As foreign exchange regulations were imposed, the proportion of non-resident (NR) trading gradually declined. Since September 2003, when measures to deter short-term speculative inflows were put in place, non-residents have been considerably less active in the Thai baht market. Their share has fallen to less than 20%.

Figure 3

Foreign exchange daily turnover by player group



Despite some restrictions on speculative players which has caused reductions in market turnover, the foreign exchange market is still thriving. The daily turnover of interbank and customer transactions in the spot and forward markets averages around US$ 1 billion, which is quite substantial compared to other financial markets. Figure 4 shows that the swap market remains the most active market in terms of average daily turnover, but after the September 2003 measure, its share of the market has fallen back to the pre-float level. It is worth noting that forward transactions currently make up around 8% of total market turnover, compared to 5% in the pre-float period. This is seen as a good sign that Thai corporates are more aware of the exchange risk they take and thus hedge accordingly. This implies that our intervention does not result in public perception that the central Bank will maintain any particular level of the exchange rate. In addition, narrow bid-offer spreads and stable margin levels reflect better market conditions in terms of liquidity and efficiency. The market is poised to grow even further as new products, especially hedging instruments, are being developed.

III. Institutional setup (relationships with government)

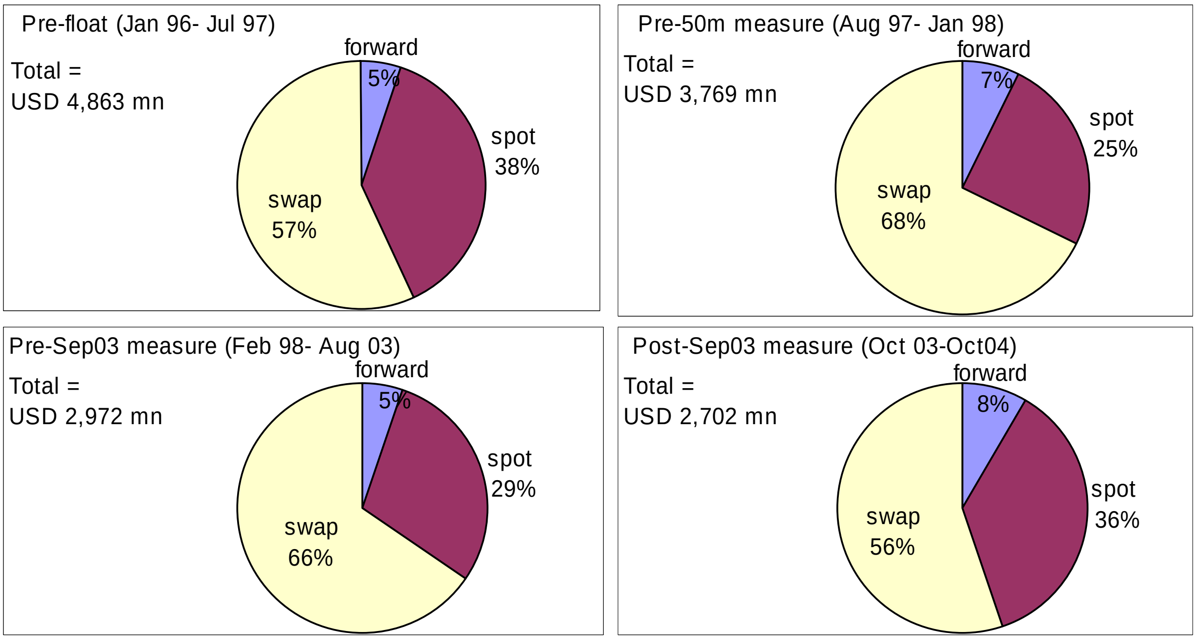
On the policy level, the Government decides on the foreign exchange regime, while the Bank has the responsibility to manage the exchange rate under that regime. Also, the Bank manages the official foreign exchange reserves. The Bank therefore is responsible for all costs/benefits of intervention and other related operations and it is obliged to remit its annual net profits to the government.[2]

---

[2] In accordance with The Bank of Thailand Act, BE 2485 and the Currency Act, BE 2501, the bank keeps two separate accounts: one for the banking department (the general account) and the other for the issue department (the currency

Figure 4

Foreign exchange daily turnover by transaction type



IV. Why do we intervene?

For a small economy that is very open to trade and capital flows like Thailand, movements in exchange rates causing changes in the value of the trade-weighted effective exchange rate, both nominal and real, can have a significant impact on the economy, particularly on inflation and GDP outcomes.

Moreover, exchange rates can overshoot. In this case, intervention may help in limiting the extent of overshooting, thus avoiding the disruptive impact and the need for costly real economic adjustment. Besides, it would enable the private sector to gradually adjust to the changing environment more efficiently. It is important, therefore, for the Bank to take these into account and intervene if conditions warrant.

As such, the bank largely intervenes to contain excessive volatility of the exchange rates. There are no specific target levels for the exchange rate. Intervention is aimed to smooth out and prevent excessive and persistent exchange rate volatility and disorderly movements, but not to resist changes in the exchange rate which are in line with broader economic fundamentals. If pressure on exchange rates reflects fundamental economic forces then it would be accommodated.

It is worth emphasising here that in implementing foreign exchange policy, the bank's primary concern is large and persistent departures of the exchange rate from its fundamental values, rather than short-term fluctuations. It is very crucial to identify factors that move the exchange rate from its fundamental values. In practice, we employ several indicators to help us distinguish desirable changes in the exchange rate from undesirable, excessive and destabilising changes. Specifically, both the bilateral rate of the Thai baht against the US dollar and the effective exchange rates are carefully monitored. The bank also monitors market activities, strategic positions, bid-ask spreads, composition and

reserve). The bank is required to remit 75% of its annual net profit in the general account to the government. The other 25% of the annual net profit is accumulated in the general account's "ordinary reserve". In addition, since 2002, the bank is also required to remit 100% of annual net profit from the currency reserve account to the government to pay off the principal on the bonds issued in accordance with the emergency decree empowering the Ministry of Finance to borrow and administer the borrowing to assist the Financial Institutions Development Fund Stage Two, BE 2545.

magnitude of foreign exchange turnover, option-implied volatility and short-term exchange rate volatilities, as shorter-term exchange rate fluctuations could be used as an early warning indicator to help signal circumstances where there might be misalignment or destabilising market activities.

Moreover, it is believed that some degree of volatility is healthy and conducive to the development of a liquid foreign exchange market. As it is essential to provide a sense of two-way risk to the market, the bank has been very careful not to dampen the volatility by too much and interfere with the development of the market. This consideration is taken into account when formulating intervention strategy so that it provides the right incentives for the market to develop the ability to cope with changing circumstances or various shocks and does not undermine risk management systems in the private sector.

For a while, immediately after the 1997 crisis, accumulating foreign exchange reserves was another important consideration for exchange rate management. A strong stock of reserves helps to minimise external vulnerability and increase confidence in the economy, especially among foreign investors. Greater confidence regarding the economy, in turn, promotes a sound and stable currency. Indeed, with international reserves amounting to US$ 46 billion at the end of October 2004, Thailand's external position is sound and the baht has been more resilient in the face of external shocks. On the one hand, a high level of reserves certainly helps to support a stable currency, but on the other hand, it incurs sterilisation costs or costs associated with fluctuations of short-term interest rates. However, it is ultimately of secondary importance to exchange rate stability itself. In all this however, it is the maintenance of the inflation target that is the overriding objective of monetary policy.

V. How do we carry out our foreign exchange policy?

It is important that our foreign exchange policy and operations are consistent with the inflation targets. The inflation targeting framework does bestow a considerable degree of flexibility upon monetary policy, allowing the Bank to vary the balance between growth and inflation, as well as internal and external balance, so long as inflation is within the target range. The Monetary Policy Committee (MPC) takes into account movements in exchange rates, among other things, when formulating the policy stance, but changes to that stance are signalled and communicated solely through the policy rate: the 14-day repurchase rate.

A broad guideline on foreign exchange operations is set by the bank's market management sub-committee. The committee meets on a weekly basis to keep up to date with latest developments in the financial markets. Foreign exchange intervention techniques and tactics are formally evaluated (by the risk management group[3]) and revised quarterly or if necessary. Effectiveness of intervention is also studied regularly.

In carrying out our foreign exchange policy, we monitor the markets and intervene when deemed appropriate. Prudential exchange measures and regulations are also put in place to help stabilise the market.

➢ Monitoring exchange rate developments

To monitor foreign exchange rate movements, the nominal effective exchange rate (NEER) and the real effective exchange rate (REER) are both used as important pieces of information to make sure that our medium and long-term competitiveness, compared to the rest of the world, are in check.

[3] The evaluation exercise is conducted approximately every quarter and typically involves a quantitative analysis performed by the risk management group to assess on how the FX intervention-related operations/regulations impact subsequent exchange rate movements. To do this, a statistical comparison based on hypergeometric distribution is used for testing. A significant result implies that the number of effective interventions is significantly different from the number of periods in which the market corrects itself, ie periods when the exchange rate naturally changes without any intervention. Based on this quantitative analysis, direct intervention of an appropriate size in the spot market has consistently been shown to significantly counteract the destabilising/excessive flows in the short term.

Moreover, certain qualitative indicators are also monitored so as to analyse what causes excessive movements or market instability, whether they stem from speculative flows or real trade and investment flows. These include, for example, flows of non-resident funds into all financial markets, flows of large exporters/importers, liquidity conditions in the offshore swap market, the options market and option-implied volatility, market long/short and strategic positions, significant technical or stop-loss levels, bid-offer spreads, etc. In addition, through our reporting requirements, we are able to observe volume, aggregate order flow in the markets, and other relevant foreign exchange positions of financial intermediaries.

➢ Intervention

The Bank employs both verbal intervention and actual intervention. The Bank intervenes in the foreign exchange market mainly via outright spot transactions by buying/selling Thai baht against US dollar, the currency most widely traded. Foreign exchange swap transactions are sometimes used in conjunction with outright intervention to influence liquidity conditions in the offshore market in order to make it more costly to fund speculative positions.

Intervention has taken place in the spot market with both onshore and offshore counterparties when necessary to maintain stability in the market. We intervene via agent banks or by dealing directly with banks depending on whether it is deemed necessary to make our presence known in that particular intervention. In general, we intervene discreetly in order to retain an element of surprise as our confirmed presence in the market could exacerbate the pressures on the currency. However, in some cases, visibility is quite helpful in that it changes market dynamics in such a way that it deters some traders and speculators from entering the market.

➢ Sterilisation

Intervention and sterilisation are necessary policy tools under the inflation targeting framework with a managed-float exchange rate system. The bank is committed to the inflation targeting framework in which the 14-day repurchase rate is used as the operating target. Therefore, sterilisation is part of the appropriate management of liquidity in the money market.

The bank conducts daily open market operations to equilibrate banks' reserves supply and demand in order to maintain the policy rate. A daily liquidity forecast gives guidelines for the amount of injection/withdrawal needed, taking into accounts exogenous factors such as changes in currency in circulation and government expenditures and receipts, as well as the other operations of the bank, including foreign exchange operations. In general, a combination of monetary instruments, namely repos, BoT bond issuance and foreign exchange swaps is used for sterilising the foreign exchange intervention.

We are aware of the cost/benefit that has arisen from sterilised intervention. In practice, however, this analysis is complicated by the fact that while the monetary costs to sterilisation (mostly in the form of foregone revenue and increased central bank balance sheet exposure) are possible to approximate, the benefits of less volatility in the exchange rates are not easily quantifiable. The BoT regularly estimates and monitors the monetary cost of sterilisation. However, the nature and extent of foreign exchange intervention are not greatly affected by it since the management of the exchange rate is first and foremost linked to reducing excessive volatility with the resulting benefits to the country's international trade, as well as to external and internal economic stability.

➢ Other foreign exchange measures

To help safeguard against potential instability and speculative activities in the currency market, the Bank imposed a few measures on certain types of foreign exchange transactions as follows.

- **29 January 1998**: non-residents without any underlying trade or investment activities in Thailand were allowed to obtain Thai baht credit facilities from their onshore couterparties up to a combined outstanding amount of THB 50 million per entity.
- **23 July 2003**: to promote capital outflows, some exchange regulations were relaxed, eg allowing institutional investors to invest more abroad and allowing Thai residents to issue structured products which link returns to foreign variables such as foreign exchange rates

and foreign assets. As a result, demand for investment in foreign debt securities rose markedly. On 20 August 2003 the Bank approved the total investment of US$ 2,449.26 million.

To deter short-term speculative capital inflows, the following two measures were imposed.

- **11 September 2003**: the amount of Thai baht that onshore financial institutions could borrow short-term (less than 3 months) from a non-resident without underlying trade or investment was limited to no more than THB 50 million per entity. However, transactions with underlying trade or investment were allowed without restrictions. This regulation resulted in baht-bullish non-residents shifting their investment from short-term Tom/Next swaps[4] into those of 3-month and 6-month tenors. The daily average volume of Tom/Next transactions fell from US$ 1,500 million to US$ 120 million after the imposition of this measure. Nevertheless, some non-residents attempted to exploit the loopholes in the 11 September measure by parking their baht liquidity in Non-Resident Baht Accounts (NRBA) instead. As a consequence, the total outstanding of all NRBAs rocketed, reaching a peak of THB 63,000 million in mid October 2003 from the normal level of around THB 18,000 million.
- **14 October 2003**: In light of findings that non-residents were using NRBAs to speculate on Thai baht instead of facilitating payments resulting from trades and investments in Thailand, the Bank issued a circular requesting onshore financial institutions to limit the outstanding balance of NRBAs at the close of the business day to no more than THB 300 million for each non-resident. This limit includes all NRBAs belonging to such a non-resident at all financial institutions in Thailand unless they have been exempted by the Bank of Thailand on a case by case basis. In addition, onshore financial institutions are prohibited from paying interest on current and saving NRBAs. The outstanding amount in the NRBAs was thus decreased substantially to around THB 16,000 million on the 16 October and has since stayed around THB 15,000-20,000 million.

VI. Information disclosure

Data on foreign exchange reserves outstanding and forward obligations are published weekly in conformation with the SDDS reporting system. However, like some other central banks' practice, data on foreign exchange market intervention are not published. One of our main reasons for not disclosing intervention data stems from the fact that our domestic foreign exchange market is still relatively small and not liquid or deep enough. Releasing intervention-related data at an inappropriate time could do more harm than good to the Thai economy, apart from the destabilising effect that could limit the effectiveness of the intervention. However, once the market becomes more developed in terms of its depth and breadth, it will allow the bank to be more transparent regarding this matter.

---

4 NRs have extensively used the foreign exchange swap market to manage their short-term baht liquidity. The Thai baht/US dollar swaps are quite active up to one-year maturity, but are more typically undertaken for a term of just one day through the so called "Tom/Next" (short for Tomorrow/Next) transaction. The first leg of the Tom/Next swap transaction takes place the day after the trade date where one would initially sell (buy) baht in exchange for US dollars. The second leg (the forward leg), where one would buy (sell) the baht back at the predetermined exchange rate, takes place the day after the first leg.

Time line for Tom/Next swap transaction