Financial market development, monetary policy and financial stability in emerging market economies

Bank of Thailand

Abstract

More than two decades have passed since the Asian Financial Crisis in 1997, which drastically reshaped financial markets in Thailand. An inflation targeting framework with a managed floating exchange rate was then adopted in place of the fixed exchange rate regime. The government bond market has also come to life, which promoted the development of the bond repurchase market. Issuance of corporate bonds has gradually become a funding alternative for private enterprises. Rules and regulations have also been reviewed to ensure the soundness of financial markets while promoting their efficiency. These market development efforts have necessitated an adjustment in monetary policy implementation and tools. They have also led to changes in market transmission, through new channels and players. At the same time, market development has also led to the emergence of new financial risks, which have warranted close monitoring and prompt action by the authorities.

The first and second parts of this paper provide some background on the drivers of market development in Thailand after the Asian financial crisis, and how the conduct of monetary policy has evolved to accommodate such objectives. The third part reflects on the financial stability consequences of market development and the appropriate policy responses.

JEL classification: E44, E52, E58.

Keywords: Bank of Thailand; financial market development; monetary policy; financial stability.

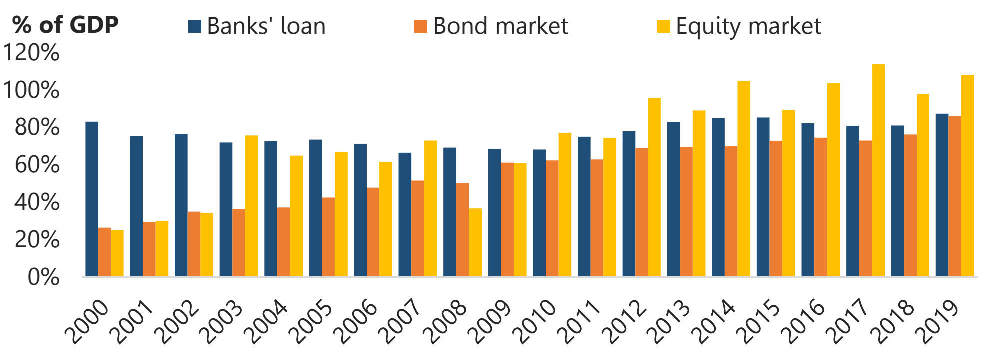
Financial market development in Thailand

The emergence of a domestic debt market

Prior to 1997, financial intermediation was conducted almost entirely by commercial banks, while funding from capital markets was limited to equities. The crisis in 1997 brought about the massive issuance of government bonds to recapitalise the banking system. Recognising the imbalance in Thailand's capital market structure and its over-reliance on bank-based funding, the authorities and private sector participants joined forces to lay the ground for a domestic bond market, by defining the regulatory and supervisory framework, setting up a market infrastructure and ecosystem, and ensuring the good conduct of market participants.

A key development was the establishment of a primary dealer system for government bond issuance and for trading with the Bank of Thailand (BOT). The system supports the take-up in the primary market and liquidity in the secondary market. A regular government issuance calendar was also established, along with the designation of benchmark bonds, whose sizeable issuance helped ensure liquidity along the entire yield curve. The active sovereign curve has produced a reference rate for private issuance, which ultimately led to the emergence of a smoothly functioning corporate bond market as another reliable funding source for businesses. Accordingly, the three main financing pillars, bank lending, equity issuance and the bond market, have become more balanced over time, as can be seen in Graph 1.

Thailand's capital market structure — Graph 1

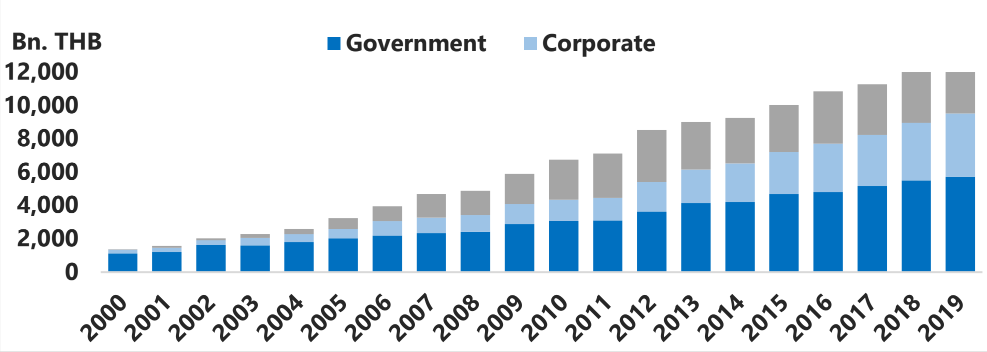


Sources: ADB, BOT, SETSmart.

Moreover, the BOT started issuing a significant amount of BOT bonds in 2008 to absorb the large liquidity pool resulting from foreign reserve accumulation in the early 2000s and bearing in mind its bond market development goals. To avoid the emergence of two yield curves on the same sovereign credit, the BOT and MOF came to an agreement to issue bonds in different parts of the curve, whereby BOT occupied the sub-three-year range, while MOF took up the longer tenors. The arrangement has worked as intended, with the two types of bond trading in an almost seamless manner, both constituting a single liquid sovereign yield curve.

Local currency bond outstanding by issuer

Graph 2



The development in bond markets also brought about the rise in the use of interest rate derivatives. The interest rate swap market in Thailand is liquid and widely utilised by local and foreign participants to manage their interest rate exposures both from investment and borrowing. It also allows players to take an interest rate view without much need for cash funding, and hence represents a good way for non-residents to take rate exposures in Thailand.

The promotion of the repo market

As the bond market became more liquid, the private repo market also took off. Until the early 2000s, in the so called BOT repo market, the BOT acted as a central counterparty for lenders and borrowers. Since all repo transactions could be carried out with the BOT, there was little incentive for market participants to transact with each other, resulting in the lack of a liquid interbank market for bond-collateralised lending, of the kind which is considered a safe and efficient funding tool in the advanced economies. Thus, the BOT gradually promoted a private repo market where banks deal directly with each other, in parallel with the existing repo market. To further foster activities in the private repo market, the BOT overhauled its own operations by phasing out the central bank-operated BOT repo market, and in 2007, it started bilateral repo transactions with newly appointed bilateral repo primary dealers (PD). With the excess liquidity in the banking system combined with limited access to BOT absorption, non-PD participants were driven to deal in the private repo market. This kick-started interbank bond-collateralised lending in the Thai market. As is the case for BOT bond issuance, where the change in BOT operations helped to promote a liquid bond market, the overhaul of the BOT's repo operation has brought about a major advance in private repo market activities.

Change in exchange rate regime and FX market landscape

After the 1997 crisis, Thailand adopted a managed floating exchange rate regime in place of the fixed exchange rate system. This has created a new environment for the FX market and entailed changes in market participants' behaviour as well as BOT's FX operations.

In the fixed exchange rate system prior to the crisis, the stability of the exchange rate made it unnecessary for market participants to manage exchange rate risk.

Following the adoption of floating exchange rate regime, FX trading activities increased for hedging purposes along with the rising availability of FX hedging tools such as FX swaps, options and cross-currency swaps (CCS), significantly increasing the depth of the FX market in the past two decades.

The role of BOT has also evolved. The days of tight control over foreign exchange transactions for residents have given way to more liberalisation as market players become more knowledgeable and well informed. The increased depth of the FX market, together with the more liquid and easily accessible bond and equity markets, has also drawn in new classes of players, such as indexed funds, which can greatly influence market movements. Such pressures have called for an adjustment in the BOT's measures. The existing "Measure to prevent Thai baht speculation", originally imposed in May 1997 to prevent the baht's depreciation, has been adjusted to structurally mitigate appreciation pressure on the currency instead. This measure, which has created a two-tier market for the baht funding of residents and non-residents, has helped the BOT to curb excessive volatility in the baht, especially that arising from offshore speculation.

BOT's FX operations have also changed since the crisis. Operations to defend the peg were replaced by foreign reserve accumulation in the 2000s. More recently, the emphasis has been on curbing excessive volatility and preventing misalignment of the baht with fundamentals. The large accumulation of foreign reserves in the past two decades has led the BOT to absorb excess reserves to maintain market interest rates around policy rate. Such action has shaped the BOT's operations and influenced market development in many ways, among which are the issuance of BOT bonds and the bilateral repo operations described above.

Impact of financial market development on monetary policy and implementation

Most of the BOT's market operations were designed with market development objectives in mind. The development of the repo and bond markets show how the choices made for market operations can shape market development. In turn, financial market development has also affected policy transmission, as outlined below.

Stronger rate transmission through bond market

A liquid sovereign yield curve and the repo market allow financial institutions to use sovereign yields and repo rates as benchmarks for their funding and lending. With excess system liquidity, most major banks hold large amounts of bonds and invest in the repo market, which act as alternative returns for banks' other activities. As bond yields and repo rates are responsive to policy rate changes, this has helped strengthen transmission of MPC policy through the interest rate channel.

The development of the bond market has also affected policy transmission in an important way. For large corporates with a good credit standing, market-based finance through bond issuance may be a cheaper alternative to bank loans. As bond yields are generally quick to respond to policy rate changes, bond market financing at times has proved a quicker transmission channel than traditional bank credit. That, in turn, has influenced banks to adjust their rates competitively and hence has helped accelerate transmission through banks. This, however, generally applies to corporates with bargaining power while rates transmission to small businesses might still be lagging behind.

Spillover from global factors to domestic markets

Improved access implies that the Thai market has become more exposed to the actions of foreign investors. As inflows from this group of investors are mostly sizeable and at times subject to herd behaviour, these flows can substantially affect exchange rate and domestic yields. In the past decade, the volatilities of exchange rates and bond yields have risen. Global factor-driven flows could drive prices to the levels that were not consistent with the economic fundamentals, affecting policy transmission and policy formulation. In recent years, Thai bond yields have increasingly been influenced by global rate cycles through both the flow and expectation channels. Movements in US yields have caused Thai bond yields, especially at the long end, to move in tandem despite the different macroeconomic environment. As only a small portion of bank credit and bond issuances are at the long end, the effect of global yield movements on the transmission mechanism was limited. This does, however, illustrate that a broader set of participants can pose new challenges for the local market, and different approaches by authorities are sometimes necessary, such as measures to curb any surge in inflows.

Enhancing the communication strategy through transparency

In a volatile and fast-changing market environment, the role of market expectations becomes even greater in the transmission of monetary policy and in the determination of asset prices. In consequence, the BOT has stepped up the use of communication channels as one of its monetary policy tools, placing even greater emphasis on transparency. In 2011, the BOT started to disclose a summary of MPC minutes, including a record of the vote after each MPC meeting, explaining the evaluation of economic conditions and the committees' views. A year later, the edited minutes were released to anchor market expectations, provide forward guidance, and reduce undesirable signals. As the pool of market participants has broadened in the past two decades, different communication protocols for different audiences have gained in importance, with communication tools such as infographics and data visualisation coming to the fore. Communications can include actions that provide signals to participants. The effectiveness of communication, however, greatly depends on the credibility of the central bank in delivering the desired result.

Impact of financial market development on financial stability

Since the crisis, commercial banks have strengthened their balance sheets. Stress test results reveal that the banking sector is resilient to severe shocks and that systemic and contagion risks stemming from interlinkages are limited. The ensuing financial market development has also benefited the Thai economy and its agents. It has created opportunities for borrowers to fund more efficiently and from more diverse lenders, both domestic and abroad. It has opened up a new range of investment and foreign currency products for investors, which allows for a more efficient process of portfolio diversification. It provides better access for market participants, from exporters to borrowers, to mitigate risks through hedging instruments. The access of foreign investors to local markets has introduced more sophistication to the market, despite also triggering volatility at times. These developments have helped strengthen the country's financial stability.

Despite these positive developments, some vulnerabilities could still undermine financial stability going forward. In the lower-for-longer rate environment, search-for-yield and underpricing of risks have become major concerns for authorities. Aside from the growing risk-taking through regulation-light savings cooperatives and high-yield financing alternatives, there are potential risks arising in other sectors. Enhanced market-based financing and deepened market functioning have allowed new and more sophisticated products and initiatives to flourish. Some pockets of risk that might ensue include issuance of lower-rated and unrated corporate bonds, concentration of large issuers in bond market, and the rapid expansion of foreign investment funds (FIFs).

First, as financing in the bond market has become more convenient for corporates, more have flocked to bond financing, especially those facing difficulty in obtaining financing from banks. Moreover, bond issuance has generally been subject to less stringent requirements than bank lending. Bonds have even been issued without credit ratings, particularly at the shorter end. Among yield-seeking investors who might not be sophisticated in assessing risks, these high-yielding securities have become more attractive. The cases of unrated bond defaults in 2017 have prompted the authorities to tighten their grip on such issuances by tightening the requirements for selling agents and intermediaries to screen investment products as well as improving disclosure for less well informed investors.

In addition, as a growing number of large corporates have resorted to bond issuance, some have accounted for a significant share of bonds outstanding in the market. Such a concentration of debtors might pose challenges to financial market stability if they were to experience financial difficulties. As these large borrowers are also funding through banks, the repercussions could spread to the broader financial system. The fact that these corporates are not under any official purview also complicates the issue.

Another form of search-for-yield is represented by FIFs seeking higher yields abroad. Aided by the liquid FX swap market for hedging, these funds raise money from retail investors and invest in foreign securities and US dollar deposits in foreign banks, mainly in emerging markets. Most of their investments are in highly rated issuers and banks. However, these funds seem to concentrate their investments in only a handful of debtors. Even though they are not yet a threat to financial stability, these debtors could pose a higher risk should the funds grow in size in a volatile global environment. These potential risks are closely monitored by authorities, while inter-agency crisis action plans have been put in place, for use if the need were to arise.

Even though market development has supported most participants in managing rates and FX risk, some are still left behind. In the current context of monetary easing in advanced economies and the easy access to local market, non-resident flows have been one of the factors that often lead to sharp swings in the baht. This has put many small and medium-sized enterprises (SMEs) at risk as they might not have access to credit and hedging instruments, especially in the agricultural sector and among thin profit margin businesses. The adverse impacts on the unhedged FX exposure of SMEs, which are already vulnerable due to their limited ability to compete in a changing business environment, could have negative ramifications in the wider economy. In dealing with these risks, the BOT has made efforts to promote the use of hedging instruments, for example options, for SMEs as well as encouraging banks to facilitate their use in this client segment.

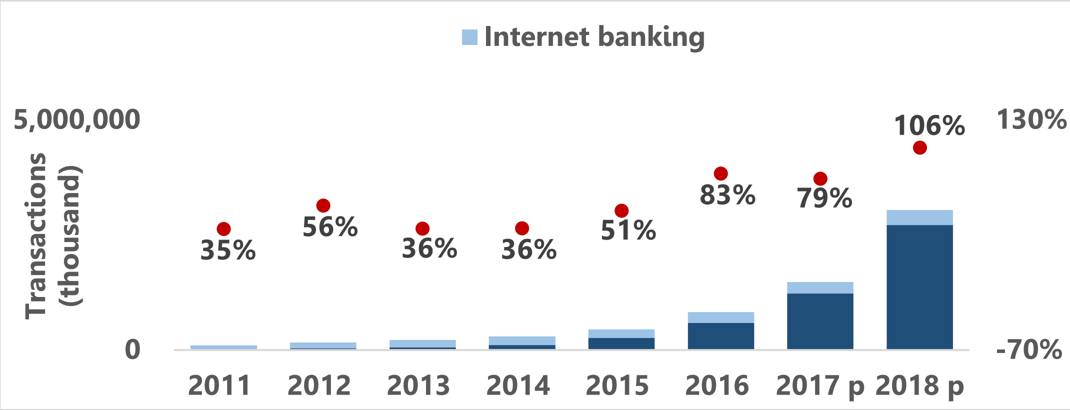
Recognising that domestic financial stability is crucial to sustainable growth, the Thai authorities continue to monitor warning signs for financial stability risks and tackle them accordingly. Besides the aforementioned efforts to deal with risks arising in capital markets, other measures have been imposed to handle risks on other fronts. In 2017, credit card regulations as well as uncollateralised personal loan limits were tightened, together with guidelines for banks on responsible lending, to mitigate household debt problems. Earlier this year, mortgage lending standards were also strengthened to rein in excessive speculation in the real estate market. Efforts to set up a Financial Stability Consultative Committee, comprising representatives from the BOT, the Securities Exchange and Commission (SEC), the Office of Insurance Commission (OIC), the Cooperative Promotion Department (CPD) and the Deposit Protection Agency (DPA) are likely to be realised in the next year or two, which will further enhance the capability of the Thai authorities in capturing risks and tackling financial stability issues.

Looking forward

While Thailand has a sufficient external cushion to tolerate short-term vulnerability in the global market, what would ensure the economy's stability and resilience in the longer run are productivity-enhancing infrastructures and an ecosystem for the ongoing transition towards the digital economy. Recently, more users have started to access financial services through digital channels such as mobile and internet banking (Graph 3), and more business opportunities have arisen for small entities, sectors which used to be disadvantaged given various limitations. This has sparked new innovations, particularly in the private sector such as peer-to-peer (P2P) lending and crowdfunding. At the same time, financial digitalisation can also be seen in transforming certain areas of investment such as FX and equities, where decisions previously made by humans have slowly migrated to the use of computer algorithms. For instance, the share of daily turnover from algorithmic trading within the Thai stock exchange has jumped from 2% in 2010 to roughly 25% in 2019.

Thailand's internet and mobile transaction volume

Graph 3



Source: BOT

One effect of fintech is that the increased use of electronic money in place of banknotes might reduce central banks' seigniorage. The central bank digital currency is one avenue where central banks can explore in the new digital arena. The BOT has already taken steps to raise the technological readiness of the Thai financial system. These steps include the launch of Project Inthanon in 2018, aimed at adopting distributed ledger technology to enhance the operational efficiency of wholesale banking.

Despite the significant benefits fintech could offer to consumers, there are certain disruptive forces that can threaten financial markets and complicate the response of authorities. For instance, third-party providers have given consumers access to certain financial services which would not have been available earlier. In particular, the emergence of private platforms such as P2P lending and crowdfunding are new alternatives to conventional funding that might disrupt the transmission mechanism of monetary policy. As lending becomes more decentralised through these platforms, the ability of central banks to control and influence market rates might be diminished. Therefore, it is imperative that central banks keep up on developments in this area and respond appropriately.

Furthermore, system and operational risk becomes more of a concern for policymakers as financial markets become more reliant on complex electronic systems. Without a robust financial infrastructure and regulation to curb systemic risk, the Thai financial markets might experience serious consequences if they were to experience system failure. The Thai authorities have thus coordinated with key stakeholders to ensure cyber security crisis preparedness, with back-up plans for the worst-case scenario.

All things considered, it is a natural response that these concerns must be met with new rules and regulations in such a way that financial stability is preserved, but still maintaining an environment conducive to financial innovations. As a consequence, the BOT has introduced a regulatory sandbox framework which allows financial institutions to test new financial technologies on a limited scale to ensure that operational risks are contained, and that a sound regulatory framework is put in place before the technology is deployed to the public.