CHAPTER 1

THE SCOPE, PROSPECTS AND IMPLICATIONS OF NEW FORMS OF FINANCIAL INTERMEDIATION IN ASEAN ECONOMIES

1.1 Background

Recent developments such as the rapid advancement in the field of digital revolution 4.0 have led to an increasing interest in new forms of financial intermediation. This trend has been followed by tremendous changes in the scope and prospects of financial intermediation and its implication to monetary policy around the globe, including the SEACEN economies. One interesting phenomenon is that many banking activities mainly related to financial intermediation are increasingly being conducted by non-bank financial institutions, which are known as shadow banking institutions and they include trust companies, securities companies, bank wealth management arms (WMAs), entrusted private entities and online platforms such as P2P lending and crowdfunding. This bank-like financial intermediation by shadow banking institutions is, as previously mentioned, supported by Financial Technology (FinTech). Financial innovation has created new financial instruments, especially in intermediating sources of funds, which may be defined as a new form of financial intermediation. This research study uses this term to analyse the current conditions and prospects of new forms of financial intermediation by shadow banking institutions in several ASEAN countries.

Figure 1.1
The Impact of New Forms of Financial Intermediaries
Unlike banking institutions which are subject to very stringent regulations and under tight supervision by financial supervisory agencies, shadow banking activities are less regulated and less tightly supervised by official authorities. Most of the existing financial regulation is still focusing on the banking system. Hence, this is one reason why many bank-like intermediary activities are conducted by shadow banking institutions. On the plus side, it is the case that shadow banking activities have broadened financial intermediation/services not only to banked people but also to unbanked people, thus benefiting all of society, including access to financial support for the needs of the unbanked part of the population as well as small businesses. This is otherwise known as financial inclusion.

But this phenomenon is not without a possible negative impact and consequences for financial sector stability as well as the economy as a whole, as shown in Figure 1.1. The emergence of financial risks may result in a higher risk of contagion across sectors and economies, arising from the sector’s less prudent intermediation activities and its proliferating interconnections with regulated banks. Altogether, this may create dangers to financial system stability which raises the probability of financial/economic crises. Financial innovation, regulatory arbitrage and FinTech advancement are some of the main factors behind the rapid growth of shadow banking activities. At the same time, these activities could bring with it faster and uncontrollable growth of money supply. Thus, the central bank will be unable to completely control domestic liquidity or the broad money supply. This ongoing, and maybe future phenomenon, would make money demand unstable.

The shadow banking system has been cited as a possible source of the financial crisis in 2008, as many banking activities were undertaken into the form of shadow banking. While many have regarded shadow banking as an impediment, Pozsar et al. (2010) view it as an innovation in credit intermediation, since it has introduced new ways of distributing funds. The shadow banking system decomposes the simple process of deposit-funded, hold-to-maturity lending conducted by banks into a more complex, wholesale-funded, securitisation-based lending process that involves a range of shadow banks. They also explain that the products and services offered by the shadow financial system were mainly taken up by credit-constrained households because they offer them an opportunity to access credit. In line with this, Cetorelli, Mandel and Mollineaux (2012) state that shadow banks have brought with them a decentralisation in financial activity, one in which the matching of the supply and the demand for funds occurs along an extended credit intermediation chain, with specialised markets and non-bank institutions each playing a part along the way.

This decentralisation of activities opens up compelling opportunities for economies of specialisation, which has become the main reason for the emergence of non-bank entities. Even though they have a narrower scope than banks, the latter have successfully performed an important function in finalising securitisation activity. In this alternative model, traditional banks have a diminished role to play. The emerge of arbitrage opportunities through regulatory loopholes, mispricing of risk in more complex models and certain incentives from activities like securities and obligation are another factor that exacerbates the domain of traditional banks in financial market (Allen, Goldstein and Jagtiani, 2018).
Up to now, the estimation of the size of the shadow banking industry in Asia has been difficult due to the lack of clear definition and the scope of activities of the shadow banking sector. Asian economies have not followed consistent definitions of shadow banking and even claim the right on discretionary application of the global definition domestically. Given such difficulties, the World Bank has successfully collected data on several ASEAN economies that shows the increasing proportion of shadow banks’ total assets to GDP, which is growing in all countries except Singapore (Figure 1.2). In spite of the increasingly ubiquitous shadow banking issues in the financial world, the purple line shows a downward trend, although the decline is not that marked – from 3.3% in 2007 to 3.1% in 2016. On the other hand, Thailand’s shadow banks’ total assets are the highest among other economies. The blue line also shows an upward trend, from 31.5% in 2007 to 48.9% in 2016. Furthermore, the increasing number of the total assets of shadow banks in these countries is consistent with the growth level of the assets. While the growth of credit by non-bank financial institutions is always lower compared to the commercial banks, based on the shadow banking report from the Financial Stability Board, the outstanding level grew positively over time until 2014, mostly around a proportion of over 15% to the outstanding credit by commercial banks.

Figure 1.2
Non-Bank Financial Institutions’ Assets to GDP Ratio for Thailand, Indonesia, Malaysia and Singapore from 2007-2016 (%)

Notes: Total assets held by financial institutions that do not accept transferable deposits but that perform financial intermediation by accepting other types of deposits or by issuing securities or other liabilities that are close substitutes for deposits as a share of GDP. It covers institutions such as saving and mortgage loan institutions, post-office savings institution, building and loan associations, finance companies that accept deposits or deposit substitutes, development banks, and offshore banking institutions. Assets include claims on domestic real non-financial sector such as central-, state- and local government, non-financial public enterprises and private sector.

As we could not find the newest data on non-bank financial assets to GDP in Malaysia, we alter the component to a more specific non-bank financial institution namely, mutual fund as it has the largest composition of asset in the non-bank financial institution market. A mutual fund is a type of managed collective investment scheme that pools money from many investors to purchase securities. Data taken from a variety of sources such as Investment Company Institute and national sources.

Furthermore, in order to keep up with the modern era, shadow banks started to take advantage of technological advances, namely FinTech. The latter employs innovative technology solutions and customer-centred approaches to reach more people including the unbanked, more widely and efficiently than traditional banks, and implement and leverage financial opportunities (Ansari and Krop, 2012; Christensen, 2013). FinTech is aimed at making financial transactions quicker and easier compared to more conventional financial transaction methods. Recently, the way consumers think and act has changed simultaneously along with digital transformation to create new kinds of consumer demand (Nemet, 2009). Consequently, the number of FinTech providers has increased significantly over time. Accenture (2017) reports that global investment in the FinTech area has risen significantly from USD930 million in 2008 to more than USD40 billion in 2017. The total value of global FinTech transactions is estimated at USD3,446 billion in 2017 and expected to reach USD8,000 billion by 2022. The transaction value in 2017 is dominated by digital payments, accounting for about 80% of the total, as reported by FinTech Report (2017), based on data from Statista.com.

FinTech as an important tool to enhance shadow banking activities has accelerated the spread of the shadow banking system around the world. For instance, China is one of the countries that has a giant shadow banking system. The system can be divided into three levels - the first of which are categorised as security, insurance, entrusted loan, money market funds, private equity investments and others; the second level includes credit creation for small companies, investment corporations, financial assurance corporations and other quasi-financial institutions; and the third level involves chambers of commerce as well as the private financial system represented by private banks, entrepreneur clubs and internet finance (Han, Hus and Li, 2019). But shadow bank financing in China presents a big risk because there is no integrated control to cover the product. There are at least four risks faced by Chinese shadow banking institutions, namely bad assets at banks, default of debt obligations on bonds, shadow financing and online financial services. Although new regulations have been drafted, if the emerging regulatory system lacks bite, risks might spread rapidly and pose a significant impact on the whole financial system and the economy. Moreover, the extent to which authorities will be legally responsible for this part is still unclear (Nikkei Asian Review, 2017).
Figure 1.3
Level of GDP and Aggregate Broad Money from 2006-2018 for Singapore, Indonesia, Malaysia and Thailand (Billion USD)

Note: Broad money is the sum of currency outside banks; demand deposits other than those of the central government; the time, savings, and foreign currency deposits of resident sectors other than the central government; bank and traveller’s checks; and other securities such as certificates of deposit and commercial paper.

GDP at purchaser’s prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars. Dollar figures for GDP are converted from domestic currencies using single year official exchange rates. For a few countries where the official exchange rate does not reflect the rate effectively applied to actual foreign exchange transactions, an alternative conversion factor is used.

FinTech and shadow banking have grown significantly for small-, medium- and large-sized enterprises. The tendency of people to use digital financial intermediaries more intensively will affect microeconomics and macroeconomics significantly, including the current role of the central bank. Supporting this statement, Zhang and Wan (2017) foresee that conventional monetary policy pursued by the central bank could become impotent in influencing the financial system. This can happen because the demand for money is no longer stable. Figure 1.3 shows the level of GDP and aggregate broad money in the ASEAN countries under observation and illustrates that the broad money (BM) growth rate is increasingly outpacing the growth rate of GDP, above all in Thailand and Indonesia. As we can see, in Thailand the ratio of broad money-to-GDP rose from 100.4% in 2007 to 119.9% in 2011, and then reached its peak of 125.7% in 2016. Similarly, in Indonesia, the ratio of broad money-to-GDP rose from 38.3% in 2008 to 40.4% in 2016. Moreover, Figure 1.4 illustrates that since 2006, the growth rate of M2 in Thailand and Indonesia has failed to follow one of the basic rules in monetary economics; that higher money growth translates into higher inflation. The red line representing the growth of M2 in Thailand is not in accordance with the blue dotted line that denotes the inflation rate. In 2008, the red line indicated an 8% increase in M2, whereas the inflation rate was decreasing from 5.5% to –0.8%. For Indonesia, the growth rate of M2 given by the purple line and the inflation rate (green dotted line) mirror the observation in Thailand. Instead of causing a decrease in Indonesian M2, the decreasing inflation rate in 2008 is apparently causing Indonesia M2 to increase sharply, from –1% to 32% in 2009. This implies that inflation and M2 have become unrelated – thus inflation is not entirely a monetary phenomenon.

Figure 1.4
Inflation and M2 Money Growth Rate from 2006-2017 for Singapore, Indonesia, Malaysia and Thailand (%)

Note: Inflation as measured by the consumer price index reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly. The Laspeyres formula is generally used.

These observations indicate that the monetary aggregates are very unstable, and that the money multiplier is endogenously determined by the behaviour of market participants. This evidence shows that it is time to reshape the monetary policy framework by including FinTech and shadow banking activities in the monetary policy formulation because the financial environment has changed dramatically in recent years and will continue to do so in future. The rapid rise of shadow banking and the boom in financial innovation including FinTech have introduced many complexities into the monetary system since 2008, thus identifying and controlling broad money have become harder. The money multiplier and the velocity of money are no longer stable, which is against the basic assumptions of the Fisher quantity theory of money (QTM), making quantitative instruments less desirable and unreliable. While shadow banking also involves credit and liquidity creation, it also creates system risk on account of the complexity of its product structure, its operations outside of the traditional banking system, a lack of legal clarity and insufficient control (Wang and Li, 2013). In short, while shadow banking provides a valuable alternative to bank funding and can play an important role in allocating finance to support real economic activity, it can also create financial stability risks when it involves a high degree of bank-like risk, such as credit risk, liquidity risk and market risk (IMF, 2019). Shadow banking can be part of complex chains of transactions that are connected to the formal banking system. If shadow banking risks are large and/or interconnected, then they are more likely to be systemic. Shadow banking activities are frequently non-transparent, leading to increased scrutiny by monetary authorities as well as raising the need of conducting comprehensive research to mitigate the risks. The necessary comprehensive steps by the monetary authority to respond appropriately to the behaviour of new forms of financial intermediation from the macroeconomics and monetary policy perspective have become more urgent, timely and relevant.

The remainder of this paper is organised as follows. The first Chapter provides the background, the behaviour of the non-bank financial intermediaries in several ASEAN countries and the research objectives. The second Chapter describes the definition, scope and prospects of new forms of financial intermediation, monetary policy implications, and the research methodology adopted in this study. Chapters 3 to 6 present empirical studies for several ASEAN countries, namely Indonesia, Thailand, Malaysia and Singapore. The last Chapter summarises the findings and their implications for monetary policy.

1.2 Objectives

1. Mapping the shadow bank activities as a new form of financial intermediation in ASEAN as a whole, Indonesia, Thailand, Malaysia and Singapore;

2. Analysing the prospects for shadow banking activity in ASEAN as a whole, Indonesia, Thailand, Malaysia, and Singapore;

3. Measuring the impact of monetary policy on shadow banks through the asset price channel in Indonesia, Thailand, Malaysia, and Singapore.
1.3 Research Benefits

1. This paper provides another reference regarding shadow banking intermediation activities in ASEAN countries for academics, practitioners and regulators.

2. Research findings also contribute to providing a backdrop for central banks’ monetary or macroprudential policies and regulatory and supervisory issues of financial supervisory agencies, and thus assist these authorities in formulating better policy recommendations.