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Credit expansion and financial stability in Malaysia

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ABSTRACT

This study investigated the degree of synchronization between credit expansion and financial stability in Malaysia at aggregated and disaggregated levels. The dynamic factor model and a broad range of macro-financial variables are adopted to construct a financial stability index to measure the stability of the Malaysian financial system. The non-parametric method is subsequently employed to gauge the degree of synchronization between credit and financial stability. The empirical findings indicated a negative synchronization between business credit and financial stability in Malaysia, suggesting that an expansion in business credit would lead to financial instability. The results implied that difficulties will arise in designing policies as business credit expands. On the other hand, there is insufficient evidence to show that increasing household credit has any negative influence on Malaysian financial stability.

1. Introduction

According to Francois Quesnay, "society was analogous to the physical organism. The circulation of wealth and goods in the economy was like the circulation of blood in the body, where both conformed to the natural order" (Brue and Grant, 2007, pp. 37). Likewise, a well-functioning financial system exhibits financial stability by utilizing socially productive investment opportunities; whereas a malfunctioning financial system leads to financial instability through the misallocation of scarce resources.

Financial intermediaries, especially the banking system, play a traditional intermediary role by channelling excess funds from depositors to households and investors to finance their consumption and investments respectively. By and large, credit plays a significant role in promoting economic growth through the credit channel, Mishra and Narayan (2015) suggested a positive effect of credit on growth after attaining a certain level of credit. However, it also influences financial stability. Both credit expansion and financial instability could give an impact on overall macroeconomic outcomes. The conflict could arise if credit expansion and financial instability are mutually exclusive that would cause policy-makers to face difficulties when designing financial development policies, where credit could promote growth as well as trigger financial instability.

The main transactions on the asset side of the balance sheet of the Malaysian banking system are loans to the public also known as credit. Economic agents, such as households and businesses, get access to credit services from banks mainly to support their consumption and investment. Before 2000, the amount of business credit to agriculture, manufacturers and services industries was relatively larger than household credit. However, household credit after that point began to grow and has beaten the growth of business credit since then. The credit trend is depicted in Fig. 1, in which the percentage of household credit-to-GDP was higher compared to the percentage of business credit-to-GDP since 2000. Moreover, household credit reached the peak of more than 15 percent of GDP in Malaysia in the year 2007, which is quite a significant amount. Household credit plays a role in promoting growth through household consumption. However, it is perceived to be more likely to cause financial instability (Buyukkarabacak and Valev, 2010), due to the lower ability of households to repay loans as compared to business credit, where businesses can generate profit for loan repayments.

The role of the financial sector was seldom highlighted in the dominance theories of the Classical and Keynesian schools. Evidently, growth theories view economic growth as a result of physical accumulation, human capital, and technological innovation. Adam Smith de-emphasizes the role of money in promoting the wealth of a nation, where money is important in facilitating payment and the circulation of goods in the economy but not promoting wealth. Additionally, Keynes viewed credit as "grease" for the wheels of economic growth. However, the recent 2007/08 global financial crisis has emphasized the importance of financial stability[1] as well as the role of credit growth in driving the business cycle, which has highlighted financial stability as a goal to

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[1] Creel et al. (2015) find that financial instability has a negative effect on economic growth in the European Union.

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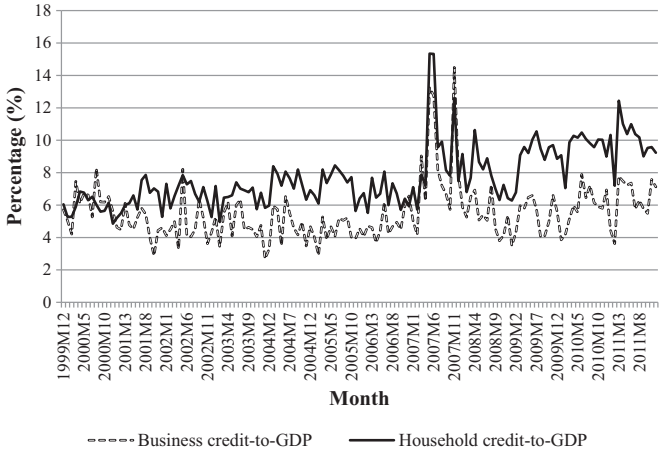
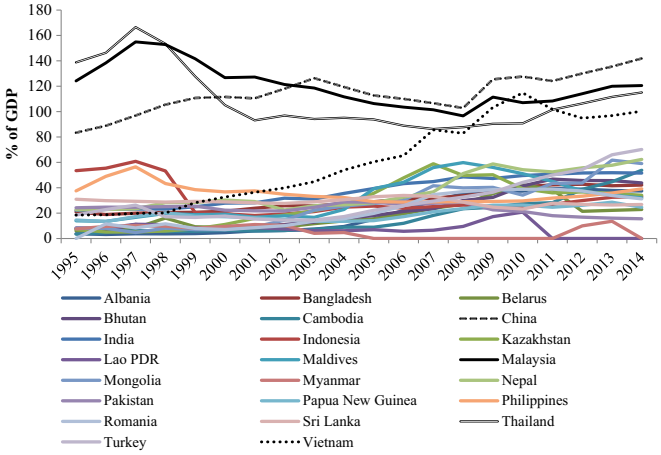


(Source: Various issues of Monthly Statistical Bulletin, Central Bank of Malaysia)

Fig. 1. Trend of credit approved by banking system in Malaysia.



(Source: World Development Indicators from the World Bank Online Databank)

Fig. 2. Trend of Domestic Credit to Private Sector by Banks from 1995 to 2014.

be pursued by central bankers, placing it at the center of academic discussions. Furthermore, the adoption of business diversification strategies by financial institutions has caused the financial system to evolve into a more complex system and hence to become less stable.

Furthermore, in the recent global financial crisis, modern macroeconomic analytical frameworks are found to be insufficient to predict future crises (White, 2009). In previous literature, many researchers have found that rapid credit growth is one of the leading indicators to determine a financial crisis (see, for example, Kaminsky et al., 1998; Kraft and Jankov, 2005; Hume and Sentence, 2009; Bernoth and Pick, 2011). Credit expansion contributes positively to growth. In the meantime, it also may lead to a financial crisis when the default probabilities are high among the credit borrowers, where it will disrupt the traditional intermediation role of financial institutions. Ultimately, systemic risk will be triggered in the financial system, whereby the risks spread to other financial institutions and eventually cause financial instability.

Credit conditions in Malaysia have been conducive to the financing needs of the economy, and they have reflected greater financial development in Malaysia. Since 2001, credit expansion has averaged around 9.2%.[2] This period of strong credit expansion coincides with a period of wide-ranging reforms undertaken to strengthen the banking sector following the 1997–1998 Asian financial crisis. The expansion of credit to businesses and households contributes to the financial development, acceleration of growth, improving investment and consumption activities. Nevertheless, excessive credit expansion that outperforms economic fundamentals and output potentially can pose destabilizing risks to the economy and financial system. While excessive credit growth is a useful indicator, studies have also demonstrated that a sustained period of high credit growth is more likely to increase the likelihood or severity of systemic distress if there are financial imbalances in the financial system.

This study investigates the degree of synchronization between credit expansion and financial stability in Malaysia. Also, we aim to gain an increased understanding of the behavior of the cycles of credit and fluctuations in financial stability and to guide policy-makers who face difficulties in designing financial development policies. We contribute to the literature in three important aspects. First, Malaysia was ranked first for five consecutive years (2009 – 2013) in the category of easily getting credit in the *Doing Business* report published by *World Bank*. Furthermore, Malaysia is ranked top three regarding supplying credit to the private sector domestically from the year 1990 to 2014. This trend is depicted in Fig. 2, in which Malaysia, China, and Thailand are the top three countries in the list of emerging economies. Therefore, it is important to evaluate the role of credit in influencing financial stability in a case of a high credit expansion emerging market. As a result, this study focused on the case of Malaysia. Second, this study constructed a financial stability index as a proxy to measure financial stability using fifteen indicators, this differs from Osorio et al. (2011) who used forecasting tests to test the predictive power of their index which are merely descriptive. Hence, the reliability and validity of their index is somewhat unconvincing. Meanwhile, Tng et al. (2012) who constructed financial stress indices only using financial variables could be insufficient information to capture financial crisis. Third, this study used the non-parametric statistics to analyze the degree of synchronization between credit and financial instability, namely a concordance index that does not require a stationary time series and suffers from sudden shocks in the series.

The organization of this paper is as follows: Section 2 discusses the literature reviews, Section 3 lays out the empirical model, econometric methodology, and the data, Section 4 contains a discussion of the empirical findings, Section 5 provides a summary and conclusions.

2. Review of literature

2.1. The construction of a financial stability index

There has been increasing attention related to the study of financial stability in recent years, especially after the 2007/08 global financial crisis. The crisis particularly drew attention from researchers to develop an index to assess the current state of financial conditions, especially in the advanced countries such as United States, United Kingdom, and the European economies (see, for example, Matheson 2012; Brave and Butters 2011; Hatzius et al. 2010; Illing and Liu 2006). However, little attention has been paid to developing a financial stability index to measure the current states of financial conditions in Asian countries (see, for example, Osorio et al., 2011; Ghosh 2011; Tng et al., 2012).

Various methodologies can be adopted to construct a financial stability index. The two most commonly used methods are: (i) principal component approach[3] and (ii) weighted-sum approach[4]. A constructed

[2] Source: Financial Stability and Payment System Report, 2013, Central Bank of Malaysia. Jakubik and Moinescu (2015) show that a 3 percent (± 1 pp margin) quarterly increase in credit to the private sector is, in nominal terms, optimal for financial stability and sustainable growth in Romania.

[3] For example, Deutsche Bank Financial Conditions Index and Federal Reserve Bank of Kansas City Financial Stress Index employ the principal component approach to construct their financial condition indexes.

[4] For example, Bloomberg Financial Conditions Index, Citi Financial Conditions Index, Goldman Sachs Financial Conditions Index and OECD Financial Conditions Index use weighted-sum approach to develop their financial conditions indexes.