

Understanding a Contextual Perspectives of Macroprudential Policy Framework

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Abstract. Global financial crisis (GFC) of 2008 to 2009 has played a significant role in the collapse of the financial institutions, failure of key business, decline in consumer wealth and slump of the economy activity not only in United States (US) but in most countries in the world. A key lesson of this crisis was the importance of mitigating systemic financial risk and the need for a macroprudential approach to surveillance and regulation that can identify system-wide risks and take appropriate actions to maintain financial stability. This paper discusses the key elements of macroprudential policy framework that are implemented in many countries in order to maintain financial stability and mitigate the systemic financial risk. The discussion is based on the elements of early warning system indicators, a set of macroprudential policy instruments and an effective macroprudential institutional framework.

Introduction

It began in USA and spread to the rest of the world, the global financial crisis (GFC) of 2008 to 2009 has brought a huge impact on the world economy. What started as an asset bubble caused by an array of financial derivatives that drove the sub-prime mortgage boom, exploded into housing and banking crisis with a cascading effect on consumer and investment demand (Zainal Abidin & Rasiah, 2009). Krugman (2009) stated that from a housing crisis, it quickly grew into a global banking crisis with the investment and merchant banks first absorbing the impact before it spread to the commercial banks and Islamic banks. In other words, this crisis played a significant role in the collapse of the financial institutions, failure of key business, declines in consumer wealth and downturn in economy activity not only in USA but in most countries in the world.

According to Arvai, Prasad and Katayama (2014), the global financial crisis triggered major changes in the approach that countries take in financial regulation, with the recognition that to ensure macroeconomic stability, economic policy has to include financial stability as an additional objective. A key lesson of this crisis was the importance of containing systemic financial risk and the need for a macroprudential approach to surveillance and regulation that can identify system-wide risks and take appropriate actions to maintain financial stability (Kawai and Morgan, 2012). Central banks of each country should play an important role in monitoring and regulating financial stability. Selialia, Mbeleki and Matlapeng (2003) reported that financial stability is crucial for sustained economic growth. Financial stability is “a condition in which the financial system comprising of financial intermediaries, markets and market infrastructures is capable of withstanding shocks, thereby reducing the likelihood of disruptions in the financial intermediation process which are severe enough to significantly impair the allocation of savings to profitable investment opportunities” (ECB, 2012). Economic growth cannot be achieved without strong financial systems. Even with sound macroeconomic fundamentals, weak financial systems can destabilize the economy, making it more vulnerable to external shocks.

In order to maintain financial stability, Siregar (2011) found that it requires more flexible and adaptive macroprudential policies. This study, therefore, discusses on key elements of a macroprudential policy framework that consists of a system of early warning indicators, a set of macroprudential policy instruments and an effective macroprudential institutional framework.

Literature Review

According to Balogh (2012), it is necessary to clarify some of the structural aspects or key elements of the implementation of macroprudential policies in the country and the authority in charge of macroprudential supervision in order to develop an effective institutional framework of macroprudential policy. Adequate institutional foundation for macroprudential policy frameworks need to suit with country-specific circumstances and institutional backgrounds (BIS, 2011; CGFS, 2012; IMF 2013). There is no “one size fits all” because different models of institutional framework might be effective

depending on the country specifics such as historical background and events, legal traditions, availability of resources and the size and complexity of the financial market (Zulkhibri & Naiya, 2016). The International Monetary Fund (IMF, 2011) has identified five relevant elements that play key roles in effective institutional framework for macroprudential policy. There are the mandate, the power and instruments, accountability and transparency mechanism, the composition of the decision-making body and the mechanism for domestic cooperation and the coordination of internal policies.

In the study of Borio (2010), Vinal (2011) and Lim et al. (2011), they have given a lot of concentration on the system analysis of macroprudential authorities/ institutional framework of macroprudential policy. In their studies, the authors have verified certain aspects that are more important to ensure effective institutional framework of macroprudential policy in a country. The aspects include a clear definition of macroprudential authorities and mandates, outlined principle for their work and different configuration of the mandates distribution between organizations need to be considered with or without interagency financial stability board.

Other than that, Claessens et al. (2014), Akinci and Olmstead-Rumsey (2015) have studied on macroprudential instruments and the application which is one of the important elements in an effective institutional macroprudential framework. It contains some recommendations on possible sets of macroprudential instruments, condition and objectives for application of each instrument. Many researchers from IMF tend to view the macroprudential policy mandate as a right for macroprudential policy for ensuring financial stability.

Macroprudential Policy Framework

To achieve more flexible and adaptive macroprudential policies, a macroprudential policy framework should ideally encompass a system of early warning indicators that signal increased vulnerabilities in financial stability, a set of policy instruments that can help mitigate risks beforehand and address the increased vulnerabilities at an early stage. It should also help build buffers to absorb shocks after the fact and an institutional framework that ensures the effective implementation of macroprudential policies.

Early Warning Systems/ Indicators. According to Jahn and Kick (2012), early warning systems are functional, data – driven approaches that draw attention to variables associated with past crises in order to alert policy makers of potential future crises. Macroprudential indicator or financial soundness indicators (FSIs) are used as the early signal for detecting imbalances that affect financial system. Based on the previous studies, there are three main approaches that are used to identify macroprudential indicators (financial soundness indicators). First, it is based on international best practices. Second, based on the underlying economic theories of financial instability and last but not least, it is based on the linkages or relationship between the sectors in an economy.

In all the approaches discussed above, the indicators should be analytically and empirically relevant, that is, there should be a sensible basis for expecting a relationship between the indicator and financial instability, and indicators should have predictive power or be classified as leading indicators in the sense that changes in one variable precede changes in another (Selilia et. al, 2013).

Macroprudential Policy Instruments. There are 10 types of macroprudential policy instruments that have been most frequently applied to achieve macroprudential objectives based on the three types of measures. First, macroprudential policy instruments that are used for credit related are loan to value ratio (LTV), debt to income ratio (DTI), caps on foreign currency lending and ceilings on credit or credit growth. Second, macroprudential policy instruments that are used for liquidity related are limits on net open currency positions/currency mismatch, limits on maturity mismatch, reserve requirements and countercyclical/time-varying capital requirements. Last but not least, macroprudential policy instruments that are used for capital related are timevarying/dynamic provisioning and restrictions on profit distribution. Under the credit measure, the LTV is a lending risk assessment ratio that financial institutions and other lenders examine before approving a mortgage. Other than that, The DTI is the percentage of a consumer’s monthly gross income that goes toward paying debts, while caps on foreign currency lending is a credit agreement where the credit is denominated in a currency in which the consumer receives the income or holds the assets from which the credit is to be repaid. A ceiling on credit or credit growth is the maximum amount that a person, company or entity can borrow (Lim, Bhattacharya, Columba, Costa, Otani & Wu, 2011).

For the liquidity measure, NOP is the difference between balance assets and liabilities in foreign currency plus the forward (conditional and unconditional) forex purchased and sales. Limits on maturity mismatch is the tendency of a business to mismatch its balance sheet by possessing more short-term liabilities than short-term assets and having more assets than liabilities for medium and long-term obligations, while reserve requirements are requirements regarding the amount of cash a bank must hold in reserve against deposits made by customers. Countercyclical capital requirement is calculated as the weighted average of the buffers in effect in the jurisdictions to which banks have a credit exposure (Lim et al, 2011). Last but not least, tools that are used for capital related are time-varying or dynamic provisioning is the adjustment of

banks provisions for defaults on loans for the effects of the economic cycle and restrictions on profit distribution where it is the accumulated net income retained for reinvestment in a business, rather than being paid out in dividends to stockholders. (Lim et al. 2011).

An Institutional Framework of Macroprudential Policy. In order to develop an institutional framework of macroprudential policy efficiently and secure the soundness of the banking system, it is essential to clarify some of the structural aspects of the implementation of macroprudential policies in the country and the authority in charge of macroprudential supervision (Balogh, 2012). The International Monetary Fund (IMF, 2011) has identified five relevant aspects that require clarification. They are the mandate, the competencies and instruments, accountability and transparency mechanism, the composition of the decision-making body and the mechanism for the coordination of internal policies.

Conclusion

The global financial crisis (GFC) of 2008 to 2009 has highlighted the need to go beyond a purely micro – based approach to financial regulation and supervision in order to achieve financial stability. With increasing complexity in banking industry, coupled with growing severity of the crises, the focus of regulators has shifted to the adoption of a more structured macroprudential framework to address systemic risks and account for the interconnectedness of financial and non-financial institutions in the economic system. To maintain financial stability, there are three key elements of an effective macroprudential policy framework. First, an early warning indicators system that signals increased vulnerabilities to financial stability. Second, a set of macroprudential policy instruments that can help contain risks ex ante and address the increased vulnerabilities at an early stage, as well as help build buffers to absorb shocks ex post. Lastly, an institutional framework that ensures the effective identification of systemic risks and implementation of macroprudential policies.

References

- Allen, W., & Wood, G (2006). Defining and achieving financial stability. *Journal of Financial Stability*, 2(2), 72-152.
- Arvai, Z., Prasad, A & Katayama, K. (2014). Macroprudential policy in the GCC countries. *IMF Staff Discussion Note*. (Washington: International Monetary Fund).
- Balogh, P. (2012). Macroprudential supervision tools in the European banking system. International Conference Emerging Markets Queries in Finance and Business, Petru Maior University of Tîrgu-Mures, ROMANIA, *Procedia Economics and Finance*. 3, 642-647.
- Bank for International Settlements. (2011). Bank for International Settlements Annual Report 2011.
- Bank of England. (2009). The role of macroprudential policy. *Bank of England Discussion Paper*.
- Bartram, S. M., Brown, G. W., & Hund, J. E. (2005). Estimating systemic risk in the international financial system. *FDIC Center for Financial Research Working Paper*
- Borio, C. (2003). Toward a macroprudential for financial supervision and regulation. *BIS Working Papers*, No. 128.
- Borio, C. (2010) Implementing a macroprudential framework: Blending boldness and realism. Bank for International Settlements.
- Borio, C., & Drehmann, M. (2009). Towards an operational framework for financial stability: ‘Fuzzy’ measurement and its consequences. *BIS Working Paper 284* (Basel: Bank for International Settlements).
- Caruana, J. (2010). Macroprudential policy: could it have been different this time? *Speech at the People’s Bank of China Seminar on Macroprudential Policy in Cooperation with the International Monetary Fund*, Shanghai.
- Committee on the Global Financial System. (2010). Macroprudential instruments and frameworks. *CGFS Papers No 38*.
- Egawa, E., Otani, A., & Sakiyama, T. (2015). What determines institutional arrangements for macroprudential policy?. *IMES Discussion Paper Series 2015-E-3*.
- European Central Bank. (2012). *European Central Bank Annual Report 2012*.
- Hanson, S., Kashyap, A. & Stein, J. (2011). A macroprudential approach to financial regulation. *Journal of Economic Perspectives*, 25(1), 3–28.
- International Monetary Fund, (2011). Macroprudential policy: An organizing framework. *Board Paper*,(Washington: International Monetary Fund).
- Jahn, N., & Kick, T. (2012). Early warning indicators for the German banking system: a macroprudential analysis. *Discussion Paper Deutsche Bundesbank*, 27.
- Kawai, M., & Morgan P. J. (2012). Central banking for financial stability in Asia. *ADB Working Paper Series No. 37*.
- Krugman, P. (2009). *The Return of Depression Economics and the Crisis of 2008*, New York: Norton.
- Landau, J.P. (2009). Bubbles and macroprudential supervisor. Remarks at *the Joint conference on “The Future of Financial Regulation”*; Banque de France and Toulouse School of Economics (TSE), Paris.
- Lim, C. H., Bhattacharya, R., Columba, F., Costa, A., Otani, A., & Wu, X. (2011). Macroprudential policy: An organizing framework. *International Monetary Fund Background Paper*.
- Perotti E., & Suarez, J. (2009). Liquidity risk charges as a macroprudential tool. *Mimeo*, University of Amsterdam.
- Schinasi. (2004). *Safeguarding Financial Stability, Theory And Practice*. International Monetary Fund.
- Selialia, F., Mbeleki, T., & Matlapeng, K. (2003). Macroprudential analysis of the financial system: the case of South Africa. *IFC Bulletin*, 33, 110-133.
- Siregar, R. (2011). Macro-prudential approaches to banking regulation: perspectives of selected Asian central banks. *ADB Working Paper Series*, Asian Development Bank Institute.
- Zainal Abidin, M., & Rasiah, R. (2009). The global financial crisis and the Malaysian economy: Impact and responses. *A Joint Report by the Institute of Strategic and International Studies (ISIS) and Universiti Malaya*.