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**Report on PhD dissertation "Interlinkages Between Macroprudential Policy and Resilience to the Global Financial Crisis in South East Asian Emerging Economies"
authored by Dimas Mukhlas Widiatoro**

The subject of the review is a PhD dissertation entitled "*Interlinkages between Macroprudential Policy and Resilience to the Global Financial Crisis in South East Asian Emerging Economies*", authored by Dimas Mukhlas Widiatoro. The dissertation was written under the supervision of Marek A. Dąbrowski, Krakow University of Economics, Poland.

The dissertation focuses on the linkages between macroprudential policies and crisis resilience. In the first introductory paragraphs, the author writes that he intends to empirically test these linkages in countries from the group of South East Asian Emerging Economies and justifies the choice of these countries by their better economic situation (compared to other emerging and developed economies) during the 2007-2008 crisis (GFC) and the macroprudential policy instruments used. The rationale for selecting this group of countries is not valid, both in light of World Bank data on GDP per capita dynamics during the crisis and the number of macroprudential policy instruments used, particularly in Europe (see Budnik, Kleibl, 2018).

While there is no doubt that the dissertation enriches knowledge on the links between macroprudential policy and crisis resilience, the research gaps pointed out by the author have not been adequately identified, in particular the one regarding the scarcity of "studies devoted to the theoretical justification of the policy, alternative institutional frameworks or models, and complementarities with monetary and fiscal policy" (see Nier et al., 2011; Rubio, Carrasco-Gallego, 2014 or Constancio et al., 2019, among others). Also, the recent gap regarding the few studies on the macroeconomic effects of macroprudential policies seems not to be valid. Unfortunately, the identification of research gaps is not supported by any literature.

The objectives of the dissertation (and the hypotheses subordinated to them) were divided into two groups - the first related to a descriptive discussion of macroprudential policy in South East Asian Emerging Economies and its impact on the resilience crisis of 2007-2008, while the second group concerns the macroeconomic effects of macroprudential policy and the importance of macroeconomic



UNIWERSYTET JAGIELLOŃSKI
W KRAKOWIE

factors influencing this policy in South East Asian Emerging Economies. The stated objectives are subordinated to the structure of the work.

The paper consists of five chapters. In the first chapter, the author introduces the concept of crises (economic and financial), their types, sources, and transmission channels. The chapter also discusses the idea of financial vulnerabilities, crisis resilience, and contagion. The second chapter, in turn, discusses macroprudential policy, its objectives, instruments, and its relationship with fiscal and monetary policy. Although identified as a research gap, the latter needed more attention (a relatively brief three-page description with general concepts). The third chapter is very valuable and interesting and presents the course of financial crises in South East Asian Emerging Economies. In it, the author highlights the situation in the economies through 2007-2008 and points out the common factors in the Asian economies triggering the crisis, the channels of transmission, and the short- and long-term policy response. The chapter undoubtedly sheds some light on the similarities and differences between the South East Asian Emerging Economies that were analyzed. The next, fourth chapter, presents macroprudential policy in South East Asian Emerging Economies. In this chapter, the author presents in some detail the macroprudential policy institution frameworks in Indonesia, Malaysia, Philippines, and Thailand and identifies the primary and complementary objectives of these policies in these countries. The chapter foregrounds and discusses in detail the macroprudential policy instruments divided into a few groups, namely credit-related, liquidity-related, capital-related, and structural. Moreover, the author discusses the relationship between macroprudential, monetary, and fiscal policies and points to their complementarity in this chapter.

I also have no criticism of the part of the dissertation in which issues related to crises, macroprudential policy institutions, and their impact on the overall economic performance are presented in some detail. The structure of this part (chapters 1-4) is clear and substantial, although, in my view, too broad.

The dissertation's core is the fifth chapter, in which the author attempts to examine, in line with the theme of the dissertation, the links between macroprudential policy and resilience to the GFC.

In the empirical study presented in the dissertation, the author begins by defining financial crisis resilience in ex-post and ex-ante terms (it is not clear to me why he has abandoned the other measures proposed in Chapter 1). Moreover, the references in this section to non-existent (or incorrect) parts of the paper or equations make reading difficult. Measures of resilience proxies were estimated for several dimensions (GDP growth, recovery time, housing price stability, credit space, relative exchange rate stability, and inflation forecast error) during the GFC and the COVID-19 pandemic in several groups of countries. It turns out that the choice of measure (ex-post or ex-ante) determines the conclusions about resilience.

In the empirical part of the paper, the author poses several research questions, including "to what extent does the implementation of macroprudential policy influence the economy's resilience during periods of crisis?", and in search of an answer to this question, he estimates the parameters of the cross-sectional model for 62 economies (the paper does not specify exactly which ones) using annual data. The number of observations (62 for GFC or 64 in the second variant for the pre-pandemic COVID19



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w Krakowie

period) relative to the number of estimated parameters (up to 10) used for such a heterogeneous group of countries would require more attention and different specifications/samples/frequencies (see Austin, Steyerberg, 2015 or Sullivan-Mort, 2013). Nevertheless, both the conclusions drawn from the model parameter estimates and the marginal effects analysis shed some light on the impact of macroprudential policies on crisis susceptibility.

In the empirical part, in addition to a cross-sectional study, the author analyses with the SVAR model the impact of macroprudential policies on the economy using the following data set: output gap, credit gap, housing price differences, and the regulatory LTV ratio).

The analyses were conducted for the Indonesian and Korean economies. In addition to the baseline model, the author conducted the following five robustness checks - changes in the ordering of variables in the structural VAR model, usage of the broader measure of macroprudential policy, not just the regulatory LTV ratio, replaces the output gap obtained by the Hamilton filter with Hodrick-Prescott one, using real credit growth instead of credit gap, limiting the sample to the non-COVID-19 pandemic period.

The conclusions reached by the author required further analysis - some findings would require a broader discussion. Particularly, the author concludes: "In Korea, the LTV policy is less countercyclical: responses to output and real estate shocks are not significant. It may suggest that Korean macroprudential authorities use a broader set of policy instruments than the Indonesian authorities". Unfortunately, author does not identify and define those instruments and present their influence on the Korean business cycle.

In my view, the result for Korea "policy loosening contributes to credit expansion in Indonesia but has a contractionary impact in Korea" is more than puzzling as in the advanced economies, policy tightening is used to constrict credits (see De Schryder, Opitz, 2021) and here (in the thesis) in the opposite which would suggest that the Korean authorities should loosen macroprudential policy to control credit actions. Further discussion is needed in that case.

In conclusion, I believe the author's knowledge of the formulation of economic relationships, particularly those between macroprudential policy and financial processes, and the application of quantitative methods presented in the dissertation is correct. Overall, my assessment of the dissertation is positive.

In the following, I formulate some questions (which I have already mentioned above) for discussion. I kindly ask the doctoral candidate to respond to them during the public defense:

- 1) Please discuss whether the OLS assumptions are met concerning the results presented in Table 5.9. What are the consequences if these assumptions are not met?
- 2) Is the set of regressors in models #1-#5 complete? What are the possibilities for extension? What prevents similar questions from being modeled using panel rather than cross-sectional data?
- 3) What are the differences in the institutional determinants of macroprudential policy in Indonesia and Korea that lead to such significant differences in the obtained SVAR model results? Do other issues (e.g., related to the economy's structure) play a role?



UNIwersytet Jagielloński
w Krakowie

Concluding statement

The PhD dissertation “Interlinkages Between Macroprudential Policy and Resilience to the Global Financial Crisis in South East Asian Emerging Economies” by Dimas Mukhlas Widiatoro is an original solution to a scientific problem, the author has proven knowledge of economic theory and proved the ability to conduct scientific research independently. Therefore, I acknowledge that the dissertation meets the statutory requirements and consequently, I recommend it for further proceedings.

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