Poznań, October, 6, 2024 r.

Review of the doctoral dissertation prepared by Mr. Dimas M. Widiantoro, entitled „Interlinkages Between Macroprudential Policy And Resilience To The Global Financial Crisis In South East Asian Emerging Economies"

(supervisor: Dr. Hab. Marek A. Dąbrowski, prof. UEK)

Assessment of the validity of taking up the topic

In the dissertation submitted to me for review by resolution of the Scientific Council of the *Economics and Finance* discipline of the University of Economics in Krakow, the issue of macroprudential supervision and policy and its impact on the functioning of the economy was discussed. The dissertation explains the interlinkages between macroprudential policy and crisis resilience by examining empirical evidence on a specific group of countries labeled as emerging markets, namely Southeast Asian EMEs. Thus, the dissertation is placed clearly within the discipline of economics (with important, auxiliary role of finance).

Such issues have become particularly important just after the (global) financial crisis (GFC) of 2007-2008, followed by changes in financial architecture, financial and banking supervision, and economic policies worldwide. Then, interest in financial stability, financial crisis resilience, and adequate institutional solutions has even been magnified as a consequence of the COVID-19 pandemic crisis or, in a broader perspective, due to so-called policies or permacrisis. Macroprudential policy, together with monetary and fiscal policies (and the policy mix), banking supervision, and institutional frameworks, have been the subject of vivid discussion among academics, policymakers, regulators, and participants in financial markets.

One of the strains in the discussion was the performance of individual countries and economies. Some markets have demonstrated significant resilience to crisis conditions, while others have failed to maintain financial stability. In this context, attempts have been made to find the best institutional arrangements and select the best solutions in the economic policy.

Thus, the problems raised in the dissertation are of special importance, especially since the conditions for conducting monetary policy, financial supervision, and ensuring financial stability have not improved at all. In fact, they seem to be becoming more and more complicated. The issue of macroprudential policy and providing financial stability in general is, therefore, very important and topical, considering the intense and constantly accelerating pace of changes in the functioning of financial markets. The case of Southeast Asian emerging economies is of special importance here, as these very countries used macroprudential tools on a large scale and performed relatively better than both other emerging market economies and advanced economies during the crisis of 2007-2008.

Considering these factors, it is impossible not to recognize that knowledge about the relationship between financial resilience and macroprudential policy is valuable and may facilitate making specific decisions for both economic politicians and supervisors. Undoubtedly, the issue is very interesting and important from both an empirical and theoretical point of view, especially in the context of potential upcoming transformations of financial systems caused by digitalization and, more broadly, the conditions of the 5.0 economy and geopolitical changes. Therefore, the dissertation topic is interesting both cognitively and in terms of economic practice. The author also justified it well.

Assessment of the objectives, hypotheses, and research gaps

The main research objective is twofold. First, the dissertation aims to describe macroprudential policies pursued by Southeast Asian EMEs and identify their impact on resilience to the GFC of 2007-2008. Second, the thesis attempts to establish the macroeconomic effects of macroprudential policy and the importance of macroeconomic factors in driving this policy in Southeast Asian EMEs.

Such an approach can be considered correct, although the second element (the second objective) seems more general and broader than the first part. Thus, perhaps it should be the one main goal, with the part concerning the GFC as an auxiliary goal. Regardless of this note, the main objective of the dissertation can be presumed to be achieved.

The main research objectives are subsequently decomposed into eight auxiliary objectives divided into two groups. The first group includes four objectives (everyone connected with a specific chapter) related to conceptual and theoretical issues and the conduct of macroprudential policy in Southeast Asian EMEs: (O1) reviewing the different concepts of crisis resilience, their proxies and the linkages with related concepts of financial vulnerability and crisis contagion (Chapter 1); (O2) exploring the theoretical rationale behind macroprudential policy, comparing alternative institutional setups (models) of macroprudential policy, as well as the relations between this policy and monetary and fiscal policies (Chapter 2); (O3) synthesizing conceptual and empirical studies devoted to financial policy developments in Southeast Asian EMEs before and after the GFC of 2007-2008 (Chapter 3) and (O4) reviewing and synthesizing the literature on macroprudential policy in Southeast Asian (Chapter 4). The second group also includes four auxiliary objectives (of exploratory and analytical nature) relating to linkages between macroprudential policy and crisis resilience and macroeconomic consequences of macroprudential policies in Southeast Asian EMEs. These objectives, all assigned to Chapter 5., are: (O5) constructing crisis resilience proxies for more than 60 economies to compare Southeast Asian EMEs with both Asian advanced economies and other EMEs; (O6) identifying the role of macroprudential policy in shaping the resilience of Southeast Asian EMEs to the GFC of 2007-2008 and investigating the differences across other country groups (Asian advanced economies and other EMEs) in this respect; (O7) discerning the differences in the contribution of macroprudential policy to crisis resilience of Southeast Asian EMEs during the COVID-19 pandemic, a non-financial crisis, and the GFC of 2007-2008 and (O8) establishing the macroeconomic effects of macroprudential policy and determining the importance of macroeconomic developments in the conduct of macroprudential policy in Southeast Asian EMEs (Chapter 5).

All the auxiliary objectives are formulated correctly and can be considered achieved. Yet, they seem to be a little too detailed, and with the combination of the twofold (and broad) nature of the main goal, they give the impression that the dissertation and its research agenda are slightly overburdened.

This impression is even magnified when examining the identified research gaps. Namely, the Author identified five research gaps. Regarding research gaps, two of them – first and third – are questionable. The first concerns a limited number of studies devoted to the theoretical justification of the macroprudential policy, alternative institutional frameworks or models, and complementarities with monetary and fiscal policies. At the same time, the third refers to the fact that empirical studies investigating the resilience of the countries to the GFC of 2007-2008 usually employ its single concept and seldom compare the insights from the alternative measures. There is quite a large amount of literature on both issues (just to mention many publications of central banks). I suppose the author's view of research gaps in these areas might result from some definitional inaccuracies and misunderstandings.

The main research question of the dissertation is to establish whether the macroprudential policy mitigates financial vulnerability and preserves the stability of the financial system, which, in the end, contributes to the resilience of the financial crisis. The question is, in principle, correct. However, the negative answer to it would be somewhat surprising, as macroprudential policy's introduction and development were intended to maintain financial stability.

Additionally, the Author formulated eight specific, detailed research questions (3 referring to the theory and conceptual issues and five empirical ones). Again, there is an impression of too much content here – perhaps it would be more precise to focus on 3-4 main issues (the problem will also be elaborated in general remarks).

There are also plenty of hypotheses – namely, six. They are of no identical importance and could be reduced to give stronger input. For example, H2 is quite simple and demands only a simple comparison of the institutional arrangements, and H5 is quite technical and refers to only one entity. On the other hand, H3 and H4 are very interesting and complex and could be, in my opinion, the core of deliberations (more later). The Author referred to all hypotheses in the Conclusions, considering them corroborated. In principle, you can basically agree with this statement.

Summing up, all discussed in the section elements are correct, adequate, and by no means can be a part of the research agenda and scientific investigation, fulfilling or even exceeding the criteria of doctoral dissertations. At the same time, there is, however, a reflection that some reductions here would be helpful as an instrument to sharpen and direct considerations in the thesis.

Concept of work (including methodology)

The concept of the dissertation is logical and coherent. The considerations are carried out in accordance with the principle ‘from general to specific’. It can be seen that the work is conceptually well-thought-out, and the considerations conducted show the author's good orientation in the field of the subject matter.

Theoretical and empirical parts of the dissertation are clearly indicated and isolated in the structure. The presented theory constitutes clear and convincing frameworks for subsequent empirical research. The way of presenting issues and leading the reader through the dissertation and planned research plan is transparent, and the linkages between individual chapters are clear and justified.

Although sometimes too technical and put too synthetically, conclusions are clearly presented. Very valuable are the research limitations and suggestions for further research formulated by the Author. The same can be said about policy implications. On the other hand, hypotheses could be discussed more thoroughly.

The methodology applied in the dissertation is well-selected and satisfactory. The theoretical and descriptive part of the thesis is based on literature devoted to macroprudential policy (including reports of international institutions and Southeast Asian EMEs central banks). The Author intended to ensure that the references are up-to-date and of good quality (mainly indexed in the SCOPUS and Web of Science databases). This aim is, in principle, achieved. However, the broader use of publications (not only reports) of BIS, IMF, and ECB would add even more quality.

The empirical part comprises a quantitative study covering more than 60 countries that implemented macroprudential policies before and after the GFC of 2007-2008. The Author employs cross-sectional regressions and structural vector autoregressions. The first ones are used to examine the impact of macroprudential policy on crisis resilience. The Author considers two crises: the GFC of 2007-2008 and the COVID-19 pandemic. The analysis showed that macroprudential policy's role in shaping crisis resilience is conditional on the type of crisis (financial vs non-financial). The SVAR method, on the other hand, was applied to two countries, Indonesia and Korea, which the Author considers as representative of the Asian emerging markets and advanced economies, respectively. The SVAR models capture the dynamics of the system of economic variables. This enabled the Author to investigate the effects of macroprudential policy and policy responsiveness to economic shocks.

The application of the methods is correct, and the whole research procedure can be positively assessed.

General remarks

1. The dissertation is interesting in both theoretical and empirical dimensions. The Author presents knowledge and understanding of the studied problems. All considerations are well embedded in the literature

2. The thesis is coherent and compact in a relatively small volume. The Author has included a large amount of content, skillfully combining theory with practice and examples of the considered countries of Southeast Asia.
3. There are, however, some (already mentioned) small definitional and conceptual misunderstandings – the main concept in the dissertation is resilience (to the financial system crisis). Yet, there is – very similar but not unequivocal – concept of financial stability, of which the Author is aware, writing that "the main research question of the doctoral thesis is to establish whether the macroprudential policy has an impact on mitigating financial vulnerability and preserving the financial system stability, which, in the end, contributes to financial crisis resilience" (p. 7). Yet, in consideration, these concepts are sometimes treated as synonyms, blurring the narration. The very idea of financial stability (earlier than the concept of resilience) could be discussed more thoroughly as crucial for establishing macroprudential policy.
4. In the context of the dissertation's structure, objectives, and hypotheses, its title looks a little too narrow. The author studies and tests not only resilience to the global financial crisis but also to the COVID-19 crisis and its consequences. It is clearly visible in H3, according to which "Lessons learned from the Asian crisis of 1997-1998 made Southeast Asian EMEs highly ex-ante and ex-post resilient to both the GFC of 2007-2008 and the COVID-19 pandemic, compared to Asian advanced economies and other EMEs". The pandemic perspective is visible and important in research, so perhaps it should be somehow incorporated into the title, especially when one's taking into account intended by the Author (and mentioned in the H4) examination of (different) impact of macroprudential policy during financial and non-financial crises.
5. The Author presents and describes the macroeconomic outcomes of surveyed countries and frameworks of macroprudential policy there. What could be elaborated on are general institutional solutions (not only those connected with macroprudential policy) and the structural features of the surveyed countries and their quality. They by no means also influence the general stability of a selected country; thus, their presentation could give insights into the differences between them and the determinants of their resilience. It is an issue of greater importance, as differences in stability and resilience between groups of coun-

tries considered in the thesis could result from factors other than macroprudential policy (in the broadest overall perspective – the dichotomy between financial and industrial capitalism). Of course, the Author is not obliged to discuss all factors of resilience, but just mentioning them would be recommended – without it, the impression arises that macroprudential policy is the only significant factor here.

6. In the context of the previous remark, the justification of the selected countries does not seem fully convincing: "Indonesia, Malaysia, the Philippines, and Thailand are chosen to represent this economic region due to their similarity in macroprudential policy developments in the last two decades. " (p. 75) – are they similar in any other aspects? Or, from the other side, in what they differ?
7. Throughout the thesis (particularly in the theoretical chapters), the Author could more often share his own conclusions and thoughts on the discussed issues.
8. I am not a fan of discussing and comparing issues to BRICS countries, as this group of countries is extremely heterogeneous. And another subjective view – I'm not sure whether it is correct to say about the "global" financial crisis, or rather more suitable would be the phrase "crisis of financial capitalism".

Structure and content of the dissertation

The thesis comprises five chapters, an introduction, and conclusions. The first two chapters focus on conceptual and theoretical issues, the third and fourth chapters are descriptive, and the fifth chapter discusses the research methodology and reports empirical results. All chapters will be described and discussed in the subsequent part of the review. It must be stated that the remarks and comments here are mainly of polemic and discussion character and do not necessarily refer to flaws or shortages of the individual parts of the thesis.

The first chapter reviews the definitions of economic and financial crises based on their triggers and implications. Particular attention is focused on the interlinked concepts of financial vulnerability, crisis resilience, and crisis contagion. The chapter is correctly prepared and interesting. Among detailed remarks and comments on the content of this chapter, one might list the following:

1. There is a little too chaotic discussion of crisis definitions – there are compared scientific papers, textbooks, magazine articles, and dictionaries. Some hierarchy of the terms and sources would be helpful here.
2. The description is sometimes too synthetic.
3. Discussion of the causes and mechanisms of financial crises might be more precise if presented by schools of economic thought (by the way, the Author omitted the approach of the Austrian School, which is very interesting and surprisingly well describes the course of some latest financial crises).
4. Relations between economic and financial crises could be presented more explicitly.
5. P.21, footnote 4 – a little peculiar explanation of a liquidity trap.
6. The section about crisis contagion (1.4) is loosely linked with the rest of the chapter. It would suit better as point 1.3.
7. Interesting is the phrase that „some economies, particularly emerging markets, demonstrated greater resilience and recovered more quickly" (p. 24). One would instead expect that developed markets would be more resilient. Perhaps a more thorough presentation of institutional and structural context, as postulated in the general remarks section, would add more to the explanation of this fact.
8. The Author notes that " when firms primarily rely on bank lending, the economy is somewhat insulated from financial market shocks [...] In many developed economies, like the United States and European Union countries, financial markets play a larger role in providing financing, which made them more vulnerable to the adverse effects of the GFC of 2007-2008". The problem of different types of financial systems is crucial in the context of the financial crises and should be explored more.

The second chapter discusses the concept of macroprudential policy and its historical background and delves into the theoretical rationale behind macroprudential policy. The chapter characterizes various macroprudential policy institutional setups, policy goals, and tools. Finally, to give a complete picture of the macroprudential policy, in the chapter, there are also presented advantages and disadvantages of this policy and the relationships between macroprudential policy and monetary and fiscal policies.

The chapter provides good frameworks for analyzing macroprudential policy. Very good and valuable are Tables 2.1. and 2.2. with the description of stylized models of macroprudential policy and its instruments, respectively (in general, when the considerations turn to practical guesses, the Author seems to feel more confident). Referring to detailed comments, they are as follows:

1. There is an impression that, in the Author's interpretation, the macroprudential policy sometimes intertwines with monetary policy and sometimes is identified with all regulations.
2. Section 2.1. contains not only definitions but also origins of the macroprudential policy.
3. “Governments have relied on monetary and fiscal policies to maintain economic stability (Fama, 1990; Jeasakul et al., 2014)”. Referring here to Fama is somehow strange – there are many more obvious sources.
4. Some important determinants of the decreasing role of regulations are not mentioned here, e.g. financialization.
5. Section 2.2 on the rationale for macroprudential policy is too synthetic and unclear. Perhaps it would be better first to list all factors and then describe them subsequently. Moreover, the general phenomenon of information asymmetry could be put more explicitly.
6. The conception of Basel II should be presented more thoroughly and critically (mainly market discipline).
7. Section 2.3 – the description could be more up-to-date.
8. Concerning the structure of the chapter, perhaps it would be better to put section 2.5 as 2.4 before the presentation of the macroprudential policy instruments (being already operational, specific issue).
9. Concerning subsection 2.5.2 – challenges are not necessarily disadvantages.
10. In subsection 2.6.1 interesting could be an application of Tinbergen and Mundell's approaches to the description of coordination and relation between different domains of economic policy.

The third chapter presents macroprudential policy developments in the Southeast Asian EMEs in pre- and post-GFC periods. There are also presented both short-run and long-run economic policy responses to the GFC. The chapter is interesting and provides a bridge between theoretical and researched chapters. Very valuable is a comparative analysis of Southeast Asian EMEs and Latin American EMEs, BRICS countries (with restrictions made above), Central and Eastern Europe EMEs, and advanced Asian economies (AAEs). Very interesting is section 3.4.2. on similarity of longterm policy responses across Southeast Asian EMEs, with very good and well-composed Table 3.6 that characterizes priorities for financial sector reforms in Southeast Asian EMEs.

Going into details:

1. There are a few of the Author's comments and insights – more would be welcome, all the more so because those that exist are interesting and adequate.
2. Moreover, as it was signaled, a more thorough description of the institutional background of surveyed countries would be recommended here.
3. "Ten years before the GFC of 2007-2008, the crisis of the same magnitude occurred in the Southeast Asian EMEs." (p. 57) – this statement is difficult to defend. The same refers to the opinion (quoted after Didier et al. 2012) that "Southeast Asian EMEs experienced the impact of the GFC in the same way as the rest of the world".
4. P. 61, footnote 8" "Basel II focuses mainly on establishing sound governance at the individual banking level, and most economies responded by establishing or strengthening microprudential policy" – this sentence is, in principle, true. Yet, it must be said that Basel II was announced and partially implemented BEFORE the GFC and some of its assumptions and statements turned out to be utterly wrong, even contributing to the GFC.

The fourth chapter concerns the implementation of macroprudential policy implementation in the Southeast Asian EMEs. The discussion in the chapter covers institutional frameworks, objectives, and instruments of macroprudential policy in the four surveyed countries: Indonesia, Malaysia, the Philippines, and Thailand. In the last section there are described complementarities between macroprudential policy and monetary and fiscal policies. The chapter is interesting, with a detailed description of the institutional framework of supervision and macroprudential policy in selected countries. Particularly well are discussed the instruments of macroprudential policy in Southeast Asian EMEs. The elements that could be potentially taken into account here are as follows:

1. Section 4.2.1. is unnecessary in the structure – actually, it could be easily (and substantively justified) combined with section 4.1. Similarly, table 4.2 is unnecessary as it only repeats information from section 4.1.
2. There is also a problem with the long part of the text between 4.2. and 4.2.1, which is not included in any subsection.

3. More evaluative opinions of the author about the presented solutions would be useful. Without them, the description is a bit superficial.
4. The question of the policy coordination could be more evaluated here – e.g. are there any mechanisms of there any mechanisms for solving potential conflicts? Is there any hierarchy of economic policy goals? Is this complementarity of the objectives always honored and not threatened? What is the political economy behind the presented mechanisms?
5. Sections 4.1-4.3 are ordered by subjects (instruments, goals, etc.) while section 4.4. is ordered by the countries – it creates some inconsistencies in the narration.
6. Summary (perhaps a separate section or just a few paragraphs in section 4.4.) would be helpful in this chapter as it ends with a description of individual countries, with no synthesis that could be good starting point for running empirical research in the next chapter.

The fifth chapter reports the results of empirical analysis conducted by the Author. First, it investigates whether the Southeast EMEs were more resilient to the GFC of 2007-2008 and the COVID-19 pandemic than Asian advanced economies and other EMEs, employing two described earlier concepts of resilience (ex-ante and ex-post). Second, it scrutinizes the contribution of macroprudential policy to building crisis resilience. Third, the chapter explores the impact of the LTV policy on the macroeconomy and the importance of macroeconomic factors in guiding macroprudential policy. The chapter is correct, and the research made by the Author is well-projected and executed. Referring to specific, disputable issues, it can be noted what follows:

1. Comparison between GFC and COVID crises can be somehow misleading because these are different types of crises (but the Author is, of course, aware of this) – and generate different challenges for policymakers and all domains of economic and prudential policies.
2. P. 115 – not “nation”, but rather “country”.
3. GDP growth collapse as a proxy for resilience – it is, of course, justified, but semantically sounds strange
4. Table 5.1. (The list of financial crisis resilience proxies) bases on references only post-GFC, not COVID-time works included

5. Results reported in 5.1.3. are interesting but could be explained more. What stands behind such results? What are the possible reasons? The same applies to section 5.2.5.
6. P. 128 – "The Central and Eastern European economies appeared as the second group of economies that performed relatively better in absorb the adverse impact of COVID-19 pandemic crisis [..] This result shows the impact of support from European central bank that has implemented various monetary policy measures in response to pandemic". How so? Considered countries (apart Slovakia) are not a part of eurozone.
7. Too much of Didier et al. (2012) in the narration in this chapter.
8. How do these five "complementary" research questions (p. 133) correspond with those RQs listed in the introduction?

A synthesis of the research results, policy implications, and research limitations indicating potential directions of further research are laid down in the **Conclusio**n. This part is correct; I referred to the issues raised there in part on objectives and hypotheses. Here, it can be said that indicated avenues for further research are interesting and promising. Mentioned limitations od research are fairly identified and understood.

The formal side of the dissertation, including the use of sources

The dissertation was very carefully edited and formatted. There are very few linguistic and technical errors; there are repetitions or single-sentence paragraphs. Generally, however, the work is written in clear language. The author, despite describing sometimes very technical issues, managed to avoid excessive jargon. The big advantage of working is consistency; the reader has the feeling that individual elements are placed logically and with purpose and that they lead to subsequent ones.

The author skillfully uses the sources, expertly presenting the views formulated in the literature and referring to them in a manner. The dissertation uses rich and current (including recent years) literature (however, several so-called 'canonical' works in the field of financial stability and crises are lacking).

However, it should be pointed out that sometimes the author lacks precision in his statements, taking into account the broader context (the functioning of the entire economy, not only the financial sphere, as well as the description of external conditions and processes) and a slightly more personal reference to the issues under consideration

- mainly in relation to the theories discussed. However, these are minor comments; the work is read with interest.

Tables and figures are prepared correctly; the equations were also edited essentially without errors. There are some minor editorial and editorial errors, e.g. numbering of subsections in point 1.2, fragments of text not assigned to any point/subpoint, or lack of dots at the end of sources under graphic elements

Conclusion

My overall assessment of the doctoral dissertation of Mr. Dimas M. Widiantoro is unequivocally positive. This is reflected in the comments contained in the review, which are mainly polemical in nature and suggest possible improvements (mainly sharpening the considerations and conclusions, as the thesis in the present shape looks a little overloaded with objectives and hypotheses), which are not, in principle, of a critical nature, pointing out errors.

When pointing out the advantages of a dissertation, several elements can be mentioned. Firstly, the issues of the thesis are important and very current, and at the same time addressed in a comprehensive way and concerning an interesting group of countries. Secondly, the dissertation provides an original solution to the scientific problem posed (both thanks to the theoretical framework and empirical verification). The author demonstrates general theoretical knowledge in the discipline of economics and the ability to independently conduct research (meeting the statutory requirements – Article 13.1 – for obtaining a doctoral degree). Thirdly, the work has great application value and – taking into account the importance of the research problem – it may now constitute a valuable source of knowledge for entities interested in the resilience of financial systems to crises, the role of macroprudential policy, and the activities of entities (policymakers) responsible for it. It also opens up room for comparisons between different groups of countries, including the markets of Central and Eastern Europe. This may contribute to developing the best possible solutions in the field of macroprudential policy and thus reducing the risk of another financial crisis.

Taking into account the above, it should be stated that the doctoral dissertation of Mr. Dimas M. Widiantoro entitled "Interlinkages between macroprudential policy and resilience to the global financial crisis in South East Asian Emerging Economies," written under the supervision of Dr. Hab. Marek A. Dąbrowski, prof. UEK, meets the requirements specified in the Act dated March 14, 2003, on academic degrees and scientific titles and degrees and titles in the field of art and can be the subject of defense and further procedures related to awarding Mr. Widiantoro with a doctoral degree in the discipline of economics (currently economics and finance).

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