Opponent's Report on Dissertation Thesis

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| Title of the Thesis: | Monetary Policy, Macroprudential Policy and Financial Stability in |
| | the Post-Crisis Framework |
| Type of Defense: | DEFENSE |
| Date of Pre-Defense: | December 19, 2018 |
| Opponent: | John Mikael Juselius |

Address the following questions in your report, please:

- a) Can you recognize an original contribution of the author?
- b) Is the thesis based on relevant references?
- c) Is the thesis defendable at your home institution or another respected institution where you gave lectures?
- d) Do the results of the thesis allow their publication in a respected economic journal?
- e) Are there any additional major comments on what should be improved?
- f) What is your overall assessment of the thesis? (a) I recommend the thesis for defense without substantial changes, (b) the thesis can be defended after revision indicated in my comments, (c) not-defendable in this form.

(Note: The report should be at least 2 pages long.)

Dear Profersor Kočenda,

I has been my pleasure to review Ms. Simona Malovana's dissertation entitled "Monetary Policy, Macroprudential Policy and Financial Stability in the Post-Crisis Framework". I will begin my review by short statement regarding the specific questions posed in your invitation letter, without dwelling on details. Then I will put the thesis in a broader context and summarize the contributions of the individual chapters.

1. General statement

The thesis makes several original empirical contributions related to the effects of both macro-prudential and monetary policy on the capitalization of banks from a regulatory perspective. This topic clear highly topical and policy relevant. Since the effects of macro-prudential policies, in particular, are largely unknown due to limited data from their implementation, the findings in the thesis are potentially of great practical value. My impression from reading the thesis, it that Ms. Malovana is the main author in all essays of the thesis, even though two of

them are coauthored. This is evident as the two single-authored papers do not differ from the rest in terms of tone and, if anything, are of higher quality. In all essays, the thesis shows a firm grasp of the relevant literature in the field, and is able to distinguish itself in terms of contribution. The thesis would have no problem of passing the bar at a Finnish university. I believe that the two remaining unpublished essays are publishable in solid level field journals, and with additional effort might even make it to top field. I'm also pleased to note that Ms. Malovana has adequately addressed all my comments on the pre-defense version of the dissertation. I can therefore wholeheartedly recommend the thesis for public defense without any further substantial changes.

2. Context and contribution

The global financial crisis alerted the profession to the possibility that financial developments can, at times, have large effects the real economy. For example, episodes of rapid private sector credit growth tend to go hand in hand with increased financial risk taking, and can therefore lead to costly systemic financial crises. Further, it is also recognized that many policy measures affect financial outcomes. A monetary expansion, for instance, tends to increase credit growth, all else equal. It stands to reason then, that such policy measures also have implications for financial stability. Hence, the question that has been at the forefront of the policy debate ever since the crisis is if and how policymakers should factor in financial stability concerns in their policy decisions.

At least two issues are key for the policy debate: (i) How synchronized are financial and real cycles? (ii) How interlinked are different policy measures? At two extreme ends, where both financial and real cycles are highly synchronous or where there is little overlap between policy measures, there is less cause for concern. In the former case, there is no need to adjust conventional policy responses (except possibly quantitatively) and in the latter case, the task of managing financial buildups can be delegated to a separate policy branch. However, at the two other extremes, policymakers would face complex trade-offs between managing the business cycle and safeguarding financial stability.

The answer to first issue has been less contentious. The dominant (if not consensus) view, which builds on well-established research, recognizes important differences between financial and real cycles. For instance, it is well know that long-lasting upswings in housing cycles do not always go hand in hand with business cycle upswings. Hence, to the extent that policymakers want to offset potential adverse effects from such financial cycles, it will at times conflict with standard business cycle policies and may therefore require separate tools.

The second issue is, however, more contentious. The dominant view so far has been that there is little overlap between policy measures. Hence, much effort in the wake of the crisis has been devoted to developing tools and regulation for a separate policy branch, macroprudential policy, devoted to managing financial buildups, largely in isolation from other policy branches such as monetary policy. And much of this effort has been targeted at the banking sector due to its outsized role in the financial systems of most countries.

The view that there is little policy overlap has not so much been motivated by sound theorizing or empirical evidence, as from the desire of traditional policy branches to carry on with business as usual. This position has not been seriously challenged due to the lack of experience (e.g. data) with macro-prudential policy. However, more data is gradually becoming available as several countries have started to implement such policies. Given this, it

is not surprising that a burgeoning literature attempts to assess the effects of these tools, and more rarely, how they interact with monetary policy.

Simona Malovana's dissertation contributes to the aforementioned literature by investigating the effects of both monetary and macro-prudential policy on the capitalization of banks from a regulatory perspective.

The first essay (Chapter 2) studies how monetary policy affects credit-to-GDP and bank capitalization. The main finding is that a monetary tightening decreases credit-to-GDP and the capitalization of banks. The latter finding, in particular, is more novel in the literature. Another novel finding is that that bank credit growth is positively correlated with the level of bank capitalization in countries that have poorly capitalized banking sectors overall, whereas the converse holds (albeit more weakly) for banks in countries where the banking sector is well capitalized. These findings are both interesting and contribute to the literature, even if I'm more critical to this essay compared to the others on methodological grounds.

The second essay (Chapter 3) studies the effects of additional capital requirements on both the intended and unintended capitalization of banks. The main finding is that banks partially draw down existing capital surpluses (both intentional and unintentional) to satisfy additional capital requirements. This is a novel finding that has both academic and practical implications. In particular, it suggests that the effectiveness of additional capital requirements as a tool for increasing the resilience of banks may be more modest than hitherto thought.

The third essay (Chapter 4) investigates the impact of monetary policy impacts on bank's risk-weights. It finds a positive relationship between monetary policy and banks risk weights. Hence, for instance long periods of lax monetary policy may lead to an underestimation of risks in the banking sector. Again this is a novel finding of practical relevance within the larger literature that studies the interaction between monetary policy and financial stability.

The final essay (Chapter 5) assesses the degree of pro-cyclicality of banks' risk weights both at the bank aggregate level and for broad asset classes. The findings suggest, among others, that risk weights are pro-cyclical under the internal ratings-based approach, and counter cyclical under the standardized approach. These effects also differ across exposure categories, with business cycle pro-cyclicality being stronger in the highest quantiles of risk weights. These findings are important for understanding the implications of different approaches to calculating risk weighted assets which is a topical policy issue.

Taken together, Ms. Malovana's dissertation contains many valuable and topical contributions that go well beyond what is usually expected from a PhD thesis. It is also well written and communicates with the literature.

| Date: Opponent's Signature | 6,3.2019 | |
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