Erkki Liikanen: The role of analysis in macroprudential policy

Speech by Mr Erkki Liikanen, Governor of the Bank of Finland, at the RiskLab/BoF/ESRB Conference on Systemic Risk Analytics, Helsinki, 24 September 2015.

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Original presentation is on the Bank of Finland's website: Slides (PDF).

1. Systemic risks – learning the hard way

[Slide 1]

[Slide 2]

The concept of systemic risks has received much more weight after the global financial crisis. Before the crisis, the term was mainly used within the Financial Stability Departments of central banks and among a limited number of banking and finance researchers.

The concept was mainly used in microeconomic models of banking, and was almost non-existent in macroeconomic models. As a result, a structured dialogue between the two modelling worlds in this respect was largely missing.

This was also reflected in policy discussions. Before the crisis, there were justified concerns about potential risks related to some micro level phenomena – such as securitization and credit risk transfer – and macro level phenomena – such as current account imbalances. However, an analysis combining these potentially interrelated phenomena in a unified framework was missing.

Moreover, in banks' risk management models and new regulatory models that mimic them (the Basel II framework, in particular) the prevailing paradigm was based on the assumptions of market efficiency and complete markets. These models were not sufficiently informed by economics of asymmetric information and incomplete markets.

As a consequence of these and other shortcomings, many severe incentive problems which can undermine market efficiency and may help fuel bubbles were not taken seriously enough. Partly as a result of that, the global financial crisis took almost all researchers, financial institutions and policy-makers by surprise.

Complex world

[Slide 3]

How can we improve our understanding of the risks and vulnerabilities that cause financial crises?

One of the key tasks is to better incorporate systemic risks in economic models. Unfortunately, an inconvenient fact is that modelling systemic risks that reflect complexity of the real world does not make models any simpler.

This is because systemic risks are not linear by nature.

For example, if private sector debt relative to GDP increases substantially but still remains below its trend, systemic risk may not increase much. But if the ratio keeps rising above its trend level, systemic risk might shoot up at some point.[1]

[1] Cf., e.g., Jokivuolle, E., J. Pesola, and M. Virén (2015): Why is credit-to-GDP a good measure for setting countercyclical capital buffers? Journal of Financial Stability 18, June 2015, pp. 117–126.

The shooting up of systemic risk in this example happens when the vulnerability of firms and households to external shocks enters a critical zone. As debts grow, more and more firms and households would experience financial distress if the economy turns down. Financial distress may feed back negatively to the economy if consumption and investment are reduced.

At worst, firm and household defaults cause substantial losses to financiers, especially banks. If banks have also had too little capital and too much debt, especially short-term debt, banks may not be able to absorb the losses without cutting back their lending. This adds a further and potentially dangerous negative feedback to the economy.

Macroeconomic models are now taking steps to incorporate such effects. But more work needs to be done.

Another source of complexity in the real world are the networks of banks and banks´ bilateral exposures. The network and contagion effects are difficult to analyze due, inter alia, to imperfect information about counterparty balance sheets.[2]

After the crisis, more attention has been paid on the network analysis. I am certain that the presentations of this Conference related to networks and contagion will give us many new insights.

Complex risks – complex rules?

[Slide 4]

If systemic risks are complex, does this imply that we need complex regulatory rules to combat them? Not necessarily.

While economic models missed some important complexities of the real world prior to the crisis, the regulation of finance, particularly banks' risk-based capital requirements, had grown perhaps too complex.

Complex regulation together with its heterogeneous implementation left financial institutions with plenty of room for regulatory arbitrage and even manipulation of their regulatory and accounting information. This is somewhat ironic, because the increasing complexity of regulation was largely motivated by the need to reduce incentive problems which were created by the "flat", non-risk-based capital requirements of the earlier (Basel I) framework.

After the crisis, simpler and more robust regulatory rules have been developed to back up the more complex rules. The forthcoming leverage ratio requirement and the Basel Committee´s proposals for the new simple capital floors for banks´ internal risk-based capital requirements are examples of that approach.

Such safeguards provide protection against collective model risks, such as the mismeasurement of subprime mortgage risks which turned into a systemic problem.

II. Macroprudential analysis: a policy-maker's view

[Slide 5]

Economic research has a key role in the design of better regulation. Research can inform regulators in their search for the right balance between robustness and sophistication of regulatory rules. We also need high quality cost-benefit and impact analyses of regulation in order to assess the effects of regulation on financial institutions and markets, and, ultimately, on the real economy.

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[2] A recent example of the use of network analysis is Toivanen, M. (2015): Essays on Credit Contagion and Shocks in Banking. Doctoral dissertation, University of Vaasa.

In addition to the traditional financial regulatory rules we should think of safeguarding financial stability with macroprudential policy more generally. In this more holistic approach the role of analysis and research is, if possible, even more important than in the design of the traditional microprudential regulatory rules.

When talking about macroprudential policy, some observers have yet found it useful to make a distinction between it and regulation. Paul Tucker, for instance, defines macroprudential policy as "dynamically adjusted financial regulation".

Given that definition, one could argue that a well-designed and stringently implemented financial regulation is the first line of defense against systemic risks. Macroprudential policy – that is, the dynamic adjustment of regulation – is the important second line of defense.[3]

High-quality analysis reduces the inaction bias

[Slide 6]

Most economists and policy-makers seem to agree that the key objective of the macroprudential policy is to provide additional resilience to financial institutions and the financial system against cyclical and structural systemic risks and vulnerabilities.

But that is not sufficient. We also need macroprudential policies that can effectively restrain an excessive build-up of leverage and growth in household and corporate borrowing and thus dampen the credit and financial cycles. In the euro area, this need is particularly acute, as the economic cycles are currently diverging across countries and as the key monetary policy rates will stay low for a prolonged period of time.

To prevent or at least dampen potentially destructive financial booms, the authorities must be able to take early macroprudential actions. To do that, the role of reliable early warning indicators is critical. I welcome the strong emphasis of this Conference on early warning indicators and models.

The most effective tools for dampening credit cycles seem to be the so-called borrower-based instruments, such as caps on borrowers´ loan-to-value (LTV), loan-to-income (LTI) and debt-service-to-income (DSTI) ratios.

Fixed caps on these ratios, applied in many countries, are certainly useful. But ideally, the macroprudential authorities should have powers to adjust these ratios, if necessary, in a counter-cyclical fashion.

Of course, that will be challenging: a discretionary use of borrower-based instruments is politically highly sensitive, which may lead to an inaction bias.

High-quality analysis and research can help the policy-maker to overcome this bias: politically sensitive decisions can only be based on sound indicator- and model-based macroprudential analysis. The more confident the policy-makers are on the quality of analyses, the easier it is for them to decide (i) when to deploy macroprudential tools, (ii) which tools to use and (ii) how to calibrate them.

High-quality analysis and research will also help policy-makers to assess the impact of different macroprudential measures on lending, asset prices and economic activity.

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[3] For a similar view, see e.g. Blanchard (2015) Ten takeaways from the "Rethinking Macro Policy: Progress or Confusion?" http://www.voxeu.org/article/rethinking-macroeconomic-policy-introduction.

Macroprudential policies in the euro area

[Slide 7]

Let me now briefly discuss macroprudential policies in the euro area, where the macroprudential framework is special with complementary roles for national macroprudential authorities and the ECB. In this environment, there are also special needs for macroprudential analysis and research.

In the euro area, as elsewhere, national authorities bear the main responsibility for national macroprudential policies. They are always in the best position to detect country-specific systemic risks and to take appropriate measures to address them.

These national policies are organized differently in different countries. In Finland, for example, the designated macroprudential authority is the financial supervisor, the FIN-FSA. In many euro area countries, however, the national macroprudential authority is the central bank or a council of domestic authorities.

In November last year, the ECB took over the responsibility of supervising banks in the euro area. It is less well-known that at the same time the ECB became the ultimate macroprudential decision-maker in the Banking Union. More specifically, the ECB can apply higher requirements for specific macroprudential tools than proposed by the designated national macroprudential authorities, if it deems that the suggested national measures are inadequate.

In the euro area, the role of national macroprudential policies is particularly important in general and also at the current juncture. There are several reasons for that:

> First, the absence of national monetary policies puts heightened demands on national macroprudential policies in reducing domestic systemic risks.
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> Second, as the financial systems in the euro area countries are highly integrated, different macroprudential risks and problems can easily and rapidly spread across borders.
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> Third, the current accommodative monetary policies of the ECB and other central banks can have some unintended side effects on the financial system, which, if regarded serious, need to be addressed by macroprudential policies.

In this framework, there is a special need for analysis and research at least on the following topics:

> How big are the macroprudential risks related to strong interconnectedness between euro area financial institutions and markets?
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> How important are the cross-border spillovers of national macroprudential actions (and inactions)?
>
> How to reduce the potential inaction bias of national macroprudential policies?
>
> What are the biggest macroprudential risks related to the current low interest rate environment? What, if any, macroprudential measures should the policy-makers use to reduce those potential risks?

I challenge the research community to address these issues in addition to the important topics covered in this Conference.

III. Learning the lessons while not fighting the last war

[Slide 8]

In recent years, and rightly so, much of the regulatory reform and research agenda has been shaped by the experiences of the global financial crisis of 2007–2009. But the regulatory and academic communities should not end up looking at the rear view mirror for too long.

I want to highlight three recent phenomena which call for increased attention.

The first is the recent shift of credit intermediation away from the banking sector to the debt securities market. In many ways, this is a welcome development, especially in Europe with its heavy dependence on banks. Some recent studies suggest that excessively large banking sectors can be associated not only with lower economic growth but also with higher systemic risk.[4] In addition, excessive reliance of European SME´s on bank finance has been one of the reasons for the European Commission to launch its plan for the European Capital Markets Union.

But, as asked by Jaime Caruana in his recent speech, "Is a market-driven boom more or less risky than a bank-driven boom?"[5] We do not know for sure, but we should try to find out.

Second, banking-like activities are again shifting to the so called shadow banking sector, and thereby potentially outside the perimeter of regulatory rules. This may imply new threats to financial stability, with which macroprudential policy may have to have tools to deal.

The third issue which deserves close attention is the effects of digitalization on banking, which are likely to be wide-ranging. I believe we have some understanding of the potential benefits of digitalization, but we need to know more about the risks.

IV. Conclusions

[Slide 9]

Let me conclude. A better understanding of systemic risks – to which this Conference also contributes – can help policy-makers in designing better regulation and in conducting timely and effective macroprudential policy more generally.

With regard to the more static form of regulatory rules, research could guide regulators to find a right balance between simplicity and comprehensiveness. With regard to macroprudential policy which requires discretionary decisions, reliable analysis and research can help policy-makers to avoid the pitfalls of excessive passivity.

However, we should remain humble. To complement quantitative analysis, we continue to need sound expert judgment. Weak signals of risks and potential crises have to be given due consideration. Grass root level experts and their experience should be valued, and they should be encouraged to speak out. What is particularly needed is expert ability to imagine unlikely but possible scenarios which present big threats to financial stability.

Perhaps more human resources should be allocated to conduct such thought experiments on a regular basis. The results of such experiments should be regularly exposed to a discussion by top management to avoid the dangers of group thinking.

I thank you for your attention!

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[4] See eg. Langfield and Pagano (2015) Bank bias in Europe: effects on systemic risk and growth. ECB Working Paper, No. 1797.

[5] Jaime Caruana (2014) Macroprudential policy: opportunities and challenges. Abu Dhabi, 9 December 2014.