

Systemic Risk and Financial Regulation

(Banque de France – ACPR – SoFiE conference June 2014)

Welcoming address by Robert Ophèle, Deputy-Governor¹

Ladies and Gentlemen, Dear President

It is a great pleasure to host this conference of the Society for Financial Econometrics, jointly organized by the Banque de France and the ACPR; warm welcome to all of you, and especially to Eric Renault the President of the Society, in our conference center to exchange analysis on *Systemic Risk and Financial Regulation*,

As the crisis has shown, financial stability does not depend solely on the soundness of the individual components that make up the financial system; it also depends on complex interactions and interdependencies between these components. As we all know, these aspects were not properly taken into account by past regulation. It is therefore not surprising that there were so many calls for regulation improvements in order to reduce systemic risk. Many changes in regulations have already been decided and are being implemented. We have reinforced solvency ratios by reducing the leverage and by introducing SIFis and countercyclical buffers, we have introduced liquidity rules, we have facilitated the resolution process by clarifying the bail-in mechanisms and we are about to introduce a minimum Gone Concern Loss Absorbency Capacity (GLAC) for SIFis, we have regulated OTC markets by rationalizing margin calls and by promoting CCPs which, at the same time, will be specifically regulated and supervised in order to improve their financial strength – it is the EMIR regulation in Europe. Naturally, the fact that this bunch of new regulations are currently coming into force does not mean that research efforts can dampen. On the contrary,

¹ Many thanks to Jean-Paul Renne for preparing this welcome address

academic research is called for to assess these new regulations so as to allow for their future improvements. To that respect, I think that today's conference is really welcome.

The notion of “systemic risk” has become very popular. Actually, this concept is not new. I can avoid, here at the Banque de France, mentioning the early survey of this concept provided in 2000 by **Olivier de Bandt and Philipp Hartmann**². In their paper, they notably made a clear distinction between systematic and systemic risk. Basically, “systematic risks” are macroeconomic or aggregate risks that cannot be avoided through diversification. These risks are typically the ones that are priced in all financial economic models. As far as they are concerned, “systemic risks” pertain to the risk of breakdown or major dysfunction in financial markets. To simplify sharply, while systematic risks are the day-to-day risks, systemic risks encompass events that have the potential to affect the financial system as a whole.

Systemic risk is broad concept and, as such, cannot be apprehended and measured in a single way. This explains the multiplicity of approaches that have been proposed over the last few years to measure systemic risk. In a 2012 paper, **Dimitrios Bisias (and co-authors)** summarize 31 systemic-risk measures³. In spite of all these efforts, measuring systemic risk still stands as a difficult task, notably because it focuses on rare events and hence comes up against limited historical data. Today's conference will nevertheless demonstrate that, fortunately, researchers are still eager to meet that challenge. In particular, I think that the measure of systemic risk contribution proposed by **Tuomas Peltonen (and co-authors)**, taking into account sovereign-bank linkages, or the measure of vulnerability to fire-sales of **Fernando Duarte and Thomas Eisenbach** offer promising results. **Robert Engle**

² O. de Bandt and P. Hartmann. “Systemic Risk: a Survey”. ECB Working Paper No 35.

³ Dimitrios Bisias, Mark Flood, Andrew Lo and Stavros Valavanis, 2012. "A Survey of Systemic Risk Analytics," *Annual Review of Financial Economics*.

will probably have the final say with his Structural GARCH model which captures the leverage amplification mechanism.

The sensitivity of financial systems to systemic risk stems from the complexity of the interactions involved in financial activities. Accordingly, the bulk of the papers that will be presented today address issues of interactions or spillovers across financial institutions and markets. These interconnections are of many kinds:

- Several papers study interbank connections and their implications. For instance, the paper by **Falk Bräuning (and co-authors)** considers network effects in the unsecured interbank money market (supposing there will still be one) and **Serge Darolles (and co-authors)** examines how contagion effects contribute to the joint dynamics of banks' balance-sheets.
- More specifically, two papers – one by **Sascha Steffen (and co-authors)** and another by **Makoto Nirei (and co-authors)** – investigate how syndication processes, by increasing the overlap of banks' loan portfolio, makes them more vulnerable to contagious effects.
- Other interactions are those affecting CCPs in case of so-called crowded trades; **Albert Mankveld** considers this specific case and documents the existence of hidden risks and proposes a new way of calculating margins in order to cover this risk.
- Spillovers also arise from geographical segmentation, as will be shown by **Damien Puy**, who identifies global and regional dynamics in equity and bond flows.

These examples illustrate the variety of connections that characterize existing relationships between all sorts of financial entities – be they banks, members of CCP or geographical groups of investors. A couple of papers will cover an additional kind of spillovers, which is the one that may exist between different types of risks. To be specific, **Diane Pierret** and then **Jean-Cyprien Héam and Christian Gouriéroux** will share with us their analysis regarding the solvency-liquidity nexus. These analyses

are expected to bring stimulating elements in the debate regarding the introduction of these new prudential regulations.

Obviously, among the different interactions whose knowledge would be of particular interest for policy-makers are the linkages between the financial and the non-financial sectors. The potentially destabilizing implications of these interactions for the economy are addressed by the so-called “macro-prudential policies”. On-going overhauls of the regulation and supervision of the financial system call for the design and implementation of such policies, which by the way is also the focus of the latest issue of our *Financial Stability Review*. Generally speaking, macro-prudential policies aim at preventing the build-up of financial imbalances and at increasing the resilience of financial institutions. The design and calibration of such tools requires proper models of the interactions between the financial sector and the rest of the economy. This ambitious objective is notably pursued in the paper by **Laurent Clerc (and co-authors)**⁴, who propose a framework for the positive and normative analysis of macro-prudential policies, and of **Tobias Adrian and Nina Boyarchenko**, who study how capital and liquidity constraints affect the total level of risk in the economy.

The pieces of work that will be presented and discussed today are to some extent frightening. Despite the important progresses which have been made over the last few years regarding our understanding of the financial system and its interactions with the macroeconomy, it remains clear that factors of fragility, able to trigger a new systemic crisis, are still at the gate and that all of us, academics, regulators, supervisors should remain very alert, a quality Jean-Claude Trichet liked to mention; there is no silver bullet to suppress systemic risks.

To end with, I would like to express my thanks to all those who made this event possible and I wish you a pleasant and fruitful conference, giving the floor to Bernd Schwab for the first session.

⁴ Laurent Clerc, Alexis Derviz, Caterina Mendicino, Stephane Moyon, Kalin Nikolov, Livio Stracca, Javier Suarez et Alexandros Vardoulakis. "Capital Regulation in a Macroeconomic Model with Three Layers of Default"