

Abstract Rio Conference

Paper: ***“How to assess environmental systemic risks? A New Macroeconomic and Financial Regulatory Framework”***

1. Overview: brief presentation, background and potential significance

The regulatory framework that governs today’s International banking system only tackles the financial stability issue partially when considering that the main source of risks comes from the financial and banking system. In fact, we believe that Basel III regulatory framework is overlooking an important source of risk to the financial system and broader economy. Indeed, climate or environmental risks are systemic and threaten the economic, social and financial system as a whole through two different channels: the direct risks associated with the increase of highly destructive climate disasters that can put a whole country into distress, and the indirect risks that emerge from the capacity or the incapacity of modern economies to shift into a low carbon system and stress the value of the assets that could cope with those changes fast enough.

2. Methodology

Our paper addresses two main concepts: the concept of climate and environmental risks, and the concept of systemic risk.

There are several tools to insure against climate risks: (i) one through an explicit price system using either a carbon tax, an emission permit trading scheme and a dedicated risk premium (or discount), or (ii) another through an implicit price for carbon using norms, best practice guidelines and information disclosure compliance. In this paper we investigate the recent developments of an implicit carbon price thanks to the creation by the Financial Stability Board (FSB) of a Task force for Climate related Financial Disclosure (TCFD) and the pioneering case of France, binding its institutional investors to disclose their exposure and strategies towards climate change (Article 173 of the Energy Transition Law for a Clean Growth or LTEVC in French).

At the same level, there are two ways to measure systemic risk: either by the use of public and historical data and Value-at-Risk approaches; or with the use of private data and the development of dedicated stress tests. The objective of this paper is to show that a financial structure is differently affected by both financial and environmental systemic risks whether the prudential authorities use one or the other risk evaluation method.

3. Expected results: key findings

Using a stimulated close macroeconomic system with financial and regulatory incitation to take into account both climate and financial systemic risks, we show that some actors are more vulnerable to one type of risks. In addition we demonstrate that the regulatory framework impacts the complementarity or the incompatibility of risk coping strategies.

4. Conclusions: lessons learned and policy implications

The Basel III Committee should take climate risks mitigating objective in order to achieve its main goal regarding financial stability. This should prevent modern economies to fall into a new systemic crisis. However a sound macroeconomic and financial regulatory framework acknowledges all

evolving systemic risks and their interrelationship. Risk insurance strategies can be complementary (when coping with climate risk can reduce the financial systemic risk) but not always fully substitutable. For example, a non-diversified capital reallocation to a carbon free single asset can create a green bubble that increases systemic financial risk. Authorities should be particularly careful with a specific sector that cumulates both climate and financial systemic risks, such as the real estate. Prudential regulatory framework should assess both risks without creating regulatory arbitrage that creates asymmetries and potential bubbles (brown or green) that lead to the increase of one or the other systemic risk.

5. References

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