

SÉMINAIRE

DES DOCTORANTS

20/01 Louis Daumas : Transition risks, asset stranding and financial instability in a stock-flow consistent model of decarbonation trajectories

This paper develops a stock-flow consistent (SFC) model for the study of transition risks. It contributes to the modelling literature on transition risks in several ways. First, the model allows for an integrated, unified, and simpler picture of transition risks than usual methodologies, typically relying on large-scale, multi-model methods in which financial risks do not feed back onto the real economy. The model also innovates in that it adopts a fully Keynesian view on the transition, allowing for positive growth effects from the transition, while most modelling frameworks used for the study of transition risks build on neoclassical or neo-Keynesian assumptions. Second, it prolongates the emerging literature on ecological SFC (E-SFC) models by focussing on financial transition risks along long-run mitigation pathways driven by a carbon price, while existing proposals either focus on financial policies, explore theoretical considerations, or study short-term dynamics. Finally, this model allows for an explicit representation of asset stranding through capital decommissioning, and of its effect on firms' financial viability. This paper presents the main feature of the model. To illustrate its functioning, it is used to run a set of various decarbonation pathways, symbolised by different carbon prices and carbon budgets, yielding various financial instability metrics. The model concurs with the literature in identifying low magnitudes for transition risks overall, although the precise dynamics of transition risks differs from previous assessment. It is notably found that transition risks are likely to emerge in the medium-to-long run, and that a proper accounting of positive macroeconomic growth effects due to the transition are key in determining the unravelling of transition risks.

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