


Workshop “Jeunes Docteurs et Docteurs” en modélisation dynamique

Mercredi 9 avril 2025 | GAEL, Grenoble

Programme

 Faculté d'économie, salle 227 - deuxième étage du BATEG

 30 min présentation + 10 min questions

9:30-10:10

Mathilde AUBOUIN (GAEL)

The Macroeconomics of Free Digital Services

10:10-10:50

Isaac AMEDANOU (Saint-Etienne School of Economics)

Fiscal Fatigue, Public Debt Structure and Sustainability: A DSGE Model for West African Economic and Monetary Union

----- **10:50-11:10 -- Pause**

11:10-11:50

Jacques MINLEND (Le Mans Université)

Does the European Low-Carbon Policy impact price uncertainty in fossil energy markets?

Résumés

Mathilde AUBOUIN (GAEL)

The Macroeconomics of Free Digital Services

Digital technology has enabled the rise of free digital services financed by advertising. These services are increasingly popular and enable a few digital firms to generate significant revenue, although GDP does not directly consider them. This paper presents a growth model with digital services providers collecting household data in exchange for their services, which are used to sell targeted advertising to traditional firms. It enables us to study the impacts of this sector on key macroeconomic aggregates and welfare within the American context. Our results highlight that enhanced activity among large providers (new entry, greater efficiency in producing service quality or advertising) positively impacts the economy. Data collection enables small providers to compete with large ones, which benefit from greater user attention. Household preferences, such as sensitivity to privacy, also play a role, potentially hindering the free digital services sector's economic impact.

Isaac AMEDANOU (Saint-Etienne School of Economics)

Fiscal Fatigue, Public Debt Structure and Sustainability: A DSGE Model for West African Economic and Monetary Union

The present paper simulates several financing schemes for scaling-up public investment while stabilizing debt in WAEMU countries experiencing fiscal fatigue. We construct a DSGE model of a small open economy that incorporates the behavior of four types of agents: firms, households, government, and the Central Bank. The analysis assumes that when the government faces fiscal fatigue, it can turn to debt to finance the scaling-up of public investment. To ensure long-term debt sustainability, fiscal adjustments are consistently implemented through transfers and/or taxes, subject to respective caps and floors. Simulations indicate that, in the presence of natural resource revenues, scaling up public investment is feasible using concessional borrowing only or by incorporating additional external commercial or domestic borrowing while maintaining debt sustainability. Otherwise, external commercial debt appears to carry more risk.

Jacques MINLEND (Le Mans Université)

Does the European Low-Carbon Policy impact price uncertainty in fossil energy markets?

This paper aims to assess the potential effects of a low-carbon policy on price uncertainty in fossil energy markets. For this purpose, we propose text-as-data methods that rely on unsupervised machine-learning algorithms applied to European Union (EU) laws and newspapers. These methods are used to construct two monthly indices over the reference period 1997-2021: (i) a news-based index that reflects uncertainty about the regulatory framework of low-carbon policy as relayed in the press, and (ii) a law-based index that reflects structural changes in European low-carbon policy. Given the support for the carbon phase-out policy, we further examine the extent to which each index relates to price uncertainty dynamics in fossil energy markets. As a result, we find that an increase in the news-based index leads to a positive short-run effect on price uncertainty. Similarly, we observe both dampening short-run and persistent effects of the law-based index on price uncertainty. Thus, stabilizing price uncertainty dynamics through regulations serves as a measure of the efficacy and resilience of European low-carbon policy. This result is robust to the consideration of macroeconomic factors.