You are cordially invited to

UCLouvain Economics Seminar

On **Thursday November 30, 2017**, from **12:45 to 14:00**
Doyen 22, Place des Doyens, 1

Alain Venditti
(Aix Marseille, School of Economics)

Will give a presentation on

On sunspot fluctuations in infinite-horizon models: a general analysis

Abstract:
In this paper we study the existence of local indeterminacy and sunspot fluctuations in general infinite-horizon models with external effects leading to increasing returns to scale (IRS). Our aim is to study whether expectation-driven business cycles are structurally compatible with empirically realistic values for the main structural parameters, in particular those characterizing the utility and production functions.

We propose a model with a general description of preferences which is based on three elasticities, namely the elasticity of intertemporal substitution in consumption (EIS), the wage elasticity of labor supply and the elasticity of labor with respect to the marginal utility of wealth. This last elasticity provides a measure of income effect which encompasses all the standard formulations. We also consider a general production function which allows to cover any positive value for the elasticity of capital-labor substitution.

Our first main result proves that, for any size of income effect, sunspot fluctuations in aggregate models are ruled out as long as we focus on set of values for all the other structural parameters that are identified by the empirical literature. Although this conclusion does not match the result of Jaimovich (2008) where local indeterminacy is shown to arise for intermediary values of the income effect, a simple reason explains such a difference. As we show in the paper, the JR specification actually mixes income effects with habits in consumption which are known to favor the existence of local indeterminacy.

Our second main result concerns two-sector models and is completely different. We prove indeed that for any given size of income effect and elasticity of capital-labor substitution, sunspot fluctuations arise for intermediary values of the EIS as long as the elasticity of the labor supply and the size of external effects are low enough. We also show that these conditions are fully compatible with the set of values of the structural parameters identified by the empirical literature. We then prove that contrary to aggregate models, the existence of sunspot fluctuations is a generic property of two-sector models.

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