

Stéphane Bonhomme, joint with Angela Denis at the Bank of Spain, "Estimating Individual Responses when Tomorrow Matters",

Abstract:

" We study empirical decision rules that depend not only on current covariates, but also on the process of covariates. We obtain those as the nonparametric reduced forms of structural dynamic models of individual choice, where the process of covariates governs the individual's expectations about future values. We describe two strategies to identify and estimate decision rules: one that relies on the availability of subjective expectations data, and another one that rests on the assumption that individuals have rational beliefs. We are interested in estimating the effects of a change in the covariates' process on decisions and other outcomes. We decompose the total effect of such a change into a contemporaneous effect and a dynamic effect accounting for expectations. We illustrate our approach in two settings. In a model of consumption and savings, we show how to estimate the effects on consumption decisions of a change in the income process. In a model of agricultural production, we show how to identify both the effects of changes in weather and changes in the weather process (i.e., the climate), thereby accounting for the possibility of adaptation."