Quasi-experiments in international macroeconomics

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Instructors	Raphaël Chiappini and Aurélien Leroy
Teaching hours	10h
Degree level	Master 2 "Economie, Banque et Finance Internationales"
Objectives and course description	This course aims to present practical applications of evaluation methods used to identify causal effects on data at the macroeconomic level. The first part of the course will be devoted to the violation of OLS assumptions and the implementation of Instrumental Variables (IV). It will present how to estimate a Local Average Treatment Effect (LATE) for compliers and the four assumptions needed: Independence, exclusion restrictions, relevance and monotonicity. Papers from Acemoglu et al. (2019) on democracy and growth and from El Herradi and Leroy (2021) on the effect of monetary policy on income inequalities will be used to present the methodology. The second part of the course will focus on the Synthetic Control Method (SCM). The main advantages of this method, widely used in empirical research in economics, will be presented as long as contextual and data requirements following the recommendations of Abadie (2021). Papers from Puzzelo and Gomis-Porqueras (2018) on winners and losers of euro adoption and Bennett (2021) on the effectiveness of lockdown polices will illustrate the use of the method. Finally, the last part of the course will be devoted on the estimation of Difference-in-Difference models. DiD based on natural experiments at the macroeconomic level will be presented as well as DiD based on quasi-natural experiments and matching methods (PSM, MDM). Papers from Sandkanp (2021) on the effect of antidumping duties on import prices and from Chiappini et al. (2021) on the impact of innovation policies on SMEs financial constraints will be investigated in depth.
Content	Part 1: Instrumental Variables • Violation of OLS assumptions • LATE, compliers and assumptions • Examples of the use of instrumental variables Part 2: Synthetic control method • Assumptions and advantages • Contextual and data restrictions • Example of the use of SCM Part 3: Difference-in-difference estimations • Methodology and hypotheses • Exploiting natural experiments • Quasi-natural experiment and matching methods • Examples of the use of DiD
Prerequisites	Econometrics of causality; Macroeconometrics
Assessment methods	Contrôle continu : MCQ, 1h
Course material and references	Abadie, A. (2021); "Using Synthetic Controls: Feasibility, Data Requirements, and Methodological Aspects", *Journal of Economic Literature*, 59(2), 391–425. Acemoglu, D., Naidu, S., Restrepo, P., and Robinson, J.A. (2019), « Democracy does cause growth », *Journal of Political Economy*, 127(1), 47-100. Bennett, M. (2021), "All things equal? Heterogeneity in policy effectiveness against COVID-19 spread in Chile", *World Development*, 137, 105208. Chiappini, R., Montmartin, B., Pommet, S., and Demaria, S. (2021), "Can direct innovation subsidies relax SMEs' financial constraints?", mimeo. El Herradi, M., and Leroy, A. (2021), Monetary policy and the top 1%: Evidence from a century of modern economic history", *International Journal of Central Banking*, forthcoming. Puzzelo, L., and Gomis-Porqueras, P. (2018), "Winners and losers from the €uro", *European Economic Review*, 108, 129-152. Sandkamp, A. (2021), "The trade effects of antidumping duties: Evidence from the 2004 EU enlargement", *Journal of International Economics*, 123, 103307.

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