

# Rachel PAYA

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ESSEC Business School  
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## EDUCATION

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**ESSEC Business School** *2022 - 2027 (expected)*  
Ph.D. Candidate in Finance  
Supervisors: Laurent Bach and José-Miguel Gaspar  
Research Interests: Corporate Finance, Public Finance, Energy Transition

**Paris School of Economics** *2018 - 2021*  
M.Res. in Analysis and Policy in Economics  
Master thesis: *"Sustainable Welfare? Socio-Environmental Evaluation of the French Energy Voucher"*  
Thesis supervisors: Lucas Chancel & Paul Dutronc-Postel

**King's College London** *2015 - 2018*  
B.Sc. in Philosophy, Politics, and Economics

## EXPERIENCE

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<b>Research Economist</b> , Institut des Politiques Publiques (Paris, France)	<i>Nov. 2021-ongoing</i>
<b>Research Assistant</b> , World Inequality Lab (Paris, France)	<i>Feb. 2021-Oct. 2021</i>
<b>Research Analyst</b> , I4CE-Institute for Climate Economics (Paris, France)	<i>Mar. 2020-Oct. 2020</i>
<b>Junior Economist</b> , Société Générale (Paris Area, France)	<i>Sept. 2019-Feb. 2020</i>

## WORKING PAPERS

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**Do Subsidies to Green Technical Change Reduce Carbon Emissions? Evidence from French Manufacturing Firms** (with L. Bach, P. Dutronc-Postel, and A. Guillouze)

We study a one-billion-euro investment subsidy program aimed at fostering biomass-based energy adoption in manufacturing. Leveraging rich data on eleven cohorts of subsidized projects, we show that subsidies cause clean investment to increase, fossil fuel consumption to decrease and biomass consumption to increase. Yearly plant-level CO<sub>2</sub> emissions decrease by 31 %, while activity remains unchanged. Because some beneficiaries are part of the EUETS, aggregate gains from the program are lower; overall, an abated ton of CO<sub>2</sub> costs between 22 and 66 euros. Many selected projects are eventually abandoned, which can partly be explained by energy price shocks.

## WORK IN PROGRESS

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**Tax incentives and Corporate Carbon Emissions**  
**Decarbonizing Corporate Real Estate** (with O. Denagisarde)

## SEMINARS, CONFERENCES AND SUMMER SCHOOLS

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**2024:** GRASFI PhD Workshop (EDHEC), Student Research Seminar (ESSEC), European Sustainable Finance PhD Workshop (University of Augsburg)

**2023:** Brown Bag Seminar (ESSEC)

**2019:** PSE Summer School on Climate Change Economics

## POLICY WORKS

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Astier, N., Bach, L., Dutronc-Postel, P., Guillouzouic, A., Ollivier, H. and Paya, R. (2024) “**Évaluation des aides à la décarbonation du plan France Relance**” IPP Report n°50, January 2024.

Bach, L., Dutronc-Postel, P., Guillouzouic, M., Malgouyres, C. and Paya, R. (2024) “**Les émissions de CO<sub>2</sub> de l’industrie française et le “ciblage carbone” des politiques publiques**” IPP Policy Brief n°102, January 2024.

Hubert, R., Paya, R., Hilke, A., and Cardona, M. (2022) “**Scenario Analysis of Transition Risk in Finance - Towards Strategic Integration of Deep Uncertainty**” I4CE Climate Report, June 2022.

## TEACHING

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**Public Policy Analysis and Evaluation (TA to Etienne Fize)**, Sciences Po *2023, 2024*

## SKILLS

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**Programming Languages and Softwares**

R, Stata, LaTeX, Microsoft Office

**Languages**

French (native), English (fluent), Spanish (basics)