

# **THOMAS STOERK**

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## **Current position:**

2021-present

Climate Economist, Research Department, National Bank of Belgium

*I work on climate economics research and act as personal climate advisor to Governor Pierre Wunsch. Moreover, as Co-chair of the NBB Climate Hub & NBB representative in the Euro-system Climate Change Forum, I provide strategic thinking on the NBB's climate priorities.*

## **Affiliations:**

2018-present

Visiting Fellow, Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science

2023-present

Guest Professor, Barcelona School of Economics

## **Education:**

2013-2017

*Universitat Pompeu Fabra*

PhD in Economics, "Essays in Environmental Economics", *Distinction*

2014-2016

*London School of Economics and Political Science*

EDP Student (European Doctoral Program)

2012-2013

*Universitat Pompeu Fabra*

MRes in Economics

2010-2011

*Barcelona Graduate School of Economics*

MSc in Economics

2006-2010

*Universitaet Tuebingen*

BSc in International Economics

## **Research interests:**

Economics of Climate Change, Climate Policy Design, Macroeconomics of Climate Neutrality, Environmental Economics, Integrated Assessment Modelling

## **Past positions:**

2018-2021

Policy Officer, C1 Strategy and Economic Assessment, DG Climate Action, European Commission

2017-2018

High Meadows Post-Doctoral Economist, Office of the Chief Economist, Environmental Defense Fund

2011-2012

Short-term positions on environmental, climate, development and competition topics at GIZ Gesellschaft für Internationale Zusammenarbeit (Eschborn, Germany); Royal Government of Bhutan (Thimphu, Bhutan); European Commission (Brussels, Belgium)

## **Past research assistant positions:**

2014-2016

Imperial College London (Business School) and LSE (Grantham Research Institute)

2012-2016

Universitat Pompeu Fabra (Economics Department)

2009-2010

Universitaet Tuebingen (Economics Department)

## **Teaching experience:**

*As Guest Professor*

2023 - present

The use of economics in climate policy (graduate), Barcelona School of Economics

2020 - 2023

Climate economics (graduate), Universitat Pompeu Fabra

2021 - 2023

Emissions trading and climate impacts (graduate), CEI International Affairs, Escuela Diplomática de Barcelona

*As Teaching Assistant*

2012-2013

Microeconometrics (graduate), Barcelona GSE, Teaching assistant

2010-2013

Micro- and Macroeconomics (undergraduate), UPF, Teaching assistant

### **Publications:**

"[Searching for carbon leaks in multinational companies](#)" (2022), with Antoine Dechezleprêtre, Caterina Gennaioli, Ralf Martin and Mirabelle Muûls. *Journal of Environmental Economics and Management*, 112: 102601.

"[Economic impacts of tipping points in the climate system](#)" (2021), with Simon Dietz, James Rising and Gernot Wagner. *Proceedings of the National Academy of Sciences*, 118(34): e2103081118.

"[Turning the corner on US power sector CO<sub>2</sub> emissions - a 1990-2015 state level analysis](#)" (2019), with Kristina Mohlin, Alex Bi, Susanne Brooks and Jonathan Camuzeaux. *Environmental Research Letters*, 14(084049): 1-13.

"[China's national Carbon Emissions Trading Scheme: Lessons learned from the pilot emission trading schemes, academic literature, and known policy details](#)" (2019), with Daniel J. Dudek and Jia Yang. *Climate Policy*, 19(4): 472-486.

"[Policy Brief - Recommendations for Improving the Treatment of Risk and Uncertainty in Economic Estimates of Climate Impacts in the Sixth IPCC Assessment Report](#)" (2018), with Gernot Wagner and Bob Ward. *Review of Environmental Economics and Policy*, 12(2): 371-376. [[Media coverage](#)]

"[Statistical corruption on Beijing's air quality data has likely ended in 2012](#)" (2016). *Atmospheric Environment*, 127 (February 2016): 365-371.

"[From intention to action: Can nudges help consumers choose renewable energy?](#)" (2014), with Katharina Momsen. *Energy Policy*: 74 (2014), 376-382.

### **Working papers:**

"Economic benefits of global methane action" (2024), with Simon Dietz (LSE), James Rising (U Delaware), and Drew Shindell (Duke).

"Ratcheting up Paris" (2024), with Humberto Llavador (Universitat Pompeu Fabra) and John Roemer (Yale).

"Effectiveness and cost of air pollution control in China" (2020), LSE Grantham Research Institute on Climate Change and the Environment Working Paper No. 273.

"The Low-Carbon Transition: Evidence from US Counties, 1997-2010" (2019), with Jeremy Proville (EDF).

### **Work in progress:**

"Carbon pricing along the production network: innovation and competitiveness at the firm level", with Mirabelle Muûls (Imperial College London) and Ralf Martin (Imperial College London)

*Accepted at 12/2023 NBER Conference "The Economics of Decarbonizing Industrial Production"*

"Optimal air quality in China".

### **Selected Policy Writings:**

"The macroeconomic aspects of climate neutrality – a European perspective" (2023), with Pierre Wunsch and Carine Swartenbroekx. *National Bank of Belgium Blog*.

"Do all roads lead to Paris? Climate change mitigation policies in the world's largest greenhouse gas emitters" (2023), with Flore De Sloover and Dennis Essers. *NBB Economic Review* 2023 No 6.

"Global unanimity agreement on the carbon budget" (2022), with Humberto Llavador and John Roemer. *Cuadernos Económicos de ICE* No 04. 2022/II.

"Towards the climate policy of 1.5°C climate change" (2019), with Tom Van Ierland. *EAERE Magazine*, n.5, Spring 2019.

"How China is cleaning up its air pollution faster than the post-Industrial UK" (2018), *Market Forces Blog*, Environmental Defense Fund, 18<sup>th</sup> May 2018.

"Why climate policy is good economic policy" (2017), *Market Forces Blog*, Environmental Defense Fund, 14<sup>th</sup> November 2017.

## **Professional activities:**

Keynotes	2024	“Climate economics: from fringe to mainstream”, Barcelona School of Economics <i>11<sup>th</sup> BSE PhD Jamboree</i> , 9-10 May 2024 ( <i>scheduled</i> )
	2022	“The social cost of carbon, or: what has climate economics ever done for us?”, Gent University <i>Research Days</i> , 23 May 2022.
Invited seminars	2024	Umweltbundesamt, ECSB Research Cluster on Climate Change ( <i>scheduled</i> )
	2023	Environmental Defense Fund, Resources for the Future
	2022	Hertie School, Environmental Defense Fund, Banco de España, Barcelona School of Economics
	2021	National Bank of Belgium, Mercator Research Institute on Global Commons and Climate Change, Virtual Seminar on Climate Economics, IMF (Research Seminar), European Central Bank
	2020	Universitat Autònoma de Barcelona (ICTA)
	2019	LSE (Grantham Workshop), University College Dublin (Earth Institute)
	2017	Universitat de Barcelona, DIW Berlin (Climate Policy), UMassAmherst (Resource Economics), Environmental Defense Fund, Frankfurt School, Toulouse School of Economics, U Hamburg
	2016	CREI (International Lunch), LSE (Grantham Workshop), UPF (LPD Breakfast), LSE (WiP Economics)
	2015 (and prior)	UPF (Applied Breakfast), LSE (Grantham Workshop), CREI (International Lunch) UPF (Applied Lunch), UPF (Student Seminar), UPF (Behavioural Breakfast)
	Conferences	2024
2023		ASSA Annual Meeting (New Orleans), BEED (Brussels), EAERE (Limassol), NBER Conference "The Economics of Decarbonizing Industrial Production"*
2022		15 <sup>th</sup> Belgian Environmental Economics Day, EAERE (Rimini), Frontiers of Climate and Nature in Macroeconomics and Finance (Banque de France)
2021		EAERE (Virtual Conference), First Technical Workshop of EUTL data users (GROW, European Commission)
2020		AERE (Virtual Conference), EAERE (Virtual Conference)
2019		EAERE (Manchester, Policy Sessions)
2018		Interdisciplinary Ph.D. Workshop in Sustainable Development (Columbia U), WCERE (Gothenburg), FSR Climate Annual Conference (European University Institute)
2017		Interdisciplinary Ph.D. Workshop in Sustainable Development (Columbia U), EAERE (Athens)
2016		EDP Jamboree (UPF), EEA-ESEM (Geneva), China Economics Summer Institute (Hong Kong), SAEe Bilbao
2015		EAERE (Helsinki), EAERE-FEEM-VIU Summer School (Venice), 1st IIASA-JRC Summer School (Poster), EDP Jamboree (LSE), FSR Climate Annual Conference (European University Institute)

Referee for Journal of the Association of Environmental and Resource Economists, Journal of Environmental Economics and Management, American Economic Journal: Economic Policy, Journal of Public Economics, Climatic Change, Nature Climate Change, Environmental and Resource Economics, Energy Economics, Review of Environmental Economics and Policy, Resource and Energy Economics, Global Environmental Change, Global Sustainability, Energy Policy, PLOS ONE, Science of the Total Environment, Environmental Science & Technology

Other service	2024	Member of Scientific Committee, “CEPR-NBB Joint Research Workshop on Reaching Net-Zero: Electricity Markets, Carbon Pricing, and Firms' Responses”
	2023	Member of Scientific Committee, “25ème Congrès des économistes de langue française”
	2021	Member of Scientific Committee, “EU Conference on Modelling for Policy Support”
	2020	Co-facilitator in charge of adapting Paris School of Economics teaching series “Climate Change Economics” to CLIMA policy needs

**Selected climate economics discussions representing the National Bank of Belgium:**

2023/ May	Anastasios Xepapadeas (U Bologna), “Monetary policy stabilization in a new Keynesian model under climate change”, Bundesbank Spring Conference 2023, “Climate Change and Central Banks”
2023/ March	John Hassler (IIES), “Climate economics and climate policy”, NBB
2022/ October	Margherita Giuzio (ECB), “The macroeconomic implications of the insurance climate protection gap”, ESCB Research Cluster on Climate Change
2022/ May	Jean Pisani-Ferry (Sciences-Po / Bruegel / Peterson Institute), “Challenges for macroeconomic policy related to climate change”, NBB

**Climate modelling input to key European Commission climate policy packages:**

2021/ July	Delivering the European Green Deal: “Fit for 55' - delivering the EU's 2030 climate target on the way to climate neutrality”
2020/ October	Near-term methane action: “An EU strategy to reduce methane emissions”
2020/ September	2030 climate target plan: “Stepping up Europe’s 2030 climate ambition. Investing in a climate-neutral future for the benefit of our people”
2018/ November	2050 long-term strategy: “A Clean Planet for all A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy”

**Selected policy talks representing the European Commission:**

2021/ June	“Air quality co-benefits in European Commission climate impact assessments”, <i>Policy Session at EAERE2021</i> , “Berlin”
2021/ March	“Mitigation modelling: what is it, why do we use it, and why should circular economy experts care?”, <i>Circular Economy and Climate Modeling Knowledge Exchange Session</i> , organized by DG Environment, European Commission
2020/ November	“Stepping up Europe’s 2030 Climate Ambition”, talk and discussion with <i>International Association of Oil &amp; Gas Producers</i> (with Fabian Kreuzer)
2019/ May	“Economic Modelling in the European Commission’s Long-Term Strategy for Climate Neutrality by 2050”, <i>Workshop at University College London</i> , London

**Software and climate modelling:**

*User of:* Stata, Julia, Python, MS Excel

*Co-creator of “Model for Economic Tipping point Analysis (META)”*: META is a frontier second-generation climate-economy integrated assessment model that calculates the effect of tipping points on various climate damage metrics. META runs in Julia (via the MimiFramework), and my co-authors and I have released META under an open source licence: <https://github.com/openmodels/META-2021>

**Languages:**

German (*native*), English (*fluent*), Spanish (*fluent*), Catalan (*fluent*), French (*fluent*)

**References:**

Available upon request.