

Placement Director: Professor Alessandro Pavan 847-491-8266 alepavan@northwestern.edu
 Placement Administrator: Lola M. Ittner 847-491-8200 econjobmarket@northwestern.edu

Contact Information

Department of Economics
 Northwestern University
 2211 Campus Drive
 Evanston, IL 60208

Mobile: 773-961-6858
carlhallmann@u.northwestern.edu
<http://cclemh.github.io>

Fields

Research: Macroeconomics, Economic History,
 Teaching: (Macro-)Economic History, Choice Theory, Econometrics

Education

Ph.D., Economics, Northwestern University (anticipated) 2023
 Dissertation: Essays in Macroeconomic Aspects of the Labor Market and Innovation
 Committee: Matthias Doepke (Co-Chair), Joel Mokyr (Co-Chair), Giorgio Primiceri
 M.Sc., Economics, LMU Munich 2017
 Visiting student: University of California, Berkeley
 B.Sc., Economics, LMU Munich 2014
 Visiting student: University of Warwick

Job Market Paper

“Short-Time Work and the Unemployment Scar”

Abstract: Short-time work is a policy tool which subsidizes employment during recessions. I assess welfare effects and re-distributive consequences of short-time work using a heterogeneous agents model for which the income process is generated by a basic job ladder model with human capital. I estimate the impact of short-time work on human capital and the probability of becoming unemployed after being in short-time work using German social security data. I find that short-time work is especially efficient when it saves the jobs of high wage workers as it preserves their human capital, and insures a large risk.

Research and Work Experience

Research Assistant, Guido Lorenzoni, Northwestern University 2019
 · Development of an economic model of financial regulation
 Intern, BMW 04/2017-08/2017
 · Invention of a system for the estimation of parking probabilities
 · Analysis of large geo-located databases
 · Prototyping of routing algorithm
 Research Assistant, Christoph Trebesch, LMU Munich 6/2016-4/2017
 · Construction of a database covering 200 years of government defaults
 · Managing junior resources
 Research Assistant, Lukas Buchheim, LMU Munich 4/2016-4/2017
 · Writing scrapers for weather data
 · Matching wheather forecasts to adminstrational regions and local economic data

Patents

System for estimation of parking probabilities (Published as: CN111066072A, CN111066072B, DE102017221180A1, US11100799B2, US2020279484A1, WO2019101500A1; Inventors: Carl Hallmann; Owned by: BMW)

Working Papers	“Why Britain? The Right Place (in the Technology Space) at the Right Time” with W. Walker Hanlon and Lukas Rosenberger	
	<i>Short abstract:</i> We estimate a network of technologies using historical patent data and find that Britain’s central location within this network contributed to its fast growth.	
	“Invention and Technological Leadership during the Industrial Revolution” with Lukas Rosenberger and Emre E. Yavuz	
	<i>Short abstract:</i> We construct a database of historical French patents and use it to identify the relative advantage of France and Britain in different technologies. We use OCR techniques to create datasets from historical patent records, and train a random forest using information from Wikidata to identify the nationality of inventors based on their last names.	
Work in Progress	“Are Recursive Neural Networks Useful for Macroeconomic Forecasting?” with Federico Puglisi and Emre Enes Yavuz	
	<i>Abstract:</i> We horse-race a Bayesian VAR with hierarchical priors, one of the state of the art macroeconomic forecasting models, with different neural networks. These include a simple recursive neural network (RNN), an RNN with a gated recurrent unit (GRU), and a GRU regularized such that it shrinks towards with the noise and nests a standard VAR (GRU-VAR). We find that any sufficiently flexible and well regularized model has similar forecasting performance as the Bayesian VAR in one step ahead forecasts. We find that our GRU-VAR easily outperforms the Bayesian VAR in forecasts that go further than one step ahead.	
	“Central Bank Accounts For All!”	
	<i>Short abstract:</i> I develop a model of banking in which deposit insurance results in inefficiencies and outline conditions under which a central bank digital currency can alleviate those.	
Teaching Experience	Teaching Assistant, Northwestern University	2018–2022
	ECON 281: Introduction to Applied Econometrics (2021)	
	ECON 315: Topics in Economic History (2020)	
	ECON 324: Western Economic History (2021, 22)	
	MMSS 300: Foundations of Mathematical Social Sciences (2018, 19, 20)	
Fellowships & Awards	Dissertation University Fellowship, Northwestern University	2021–2022
	Prosa Scholarship	2015
	Erasmus Scholarship	2013
	Max Weber Scholarship	2012–2017
Languages	English (proficient), German (native)	
Programming	Python, Stata, Matlab, Fortran, SQL	

References

Professor Matthias Doepke
Department of Economics
Northwestern University
2211 Campus Drive
Evanston, IL 60208
847.491.8207
doepke@northwestern.edu

Professor Joel Mokyr
Department of Economics
Northwestern University
2211 Campus Drive
Evanston, IL 60208
847.491.5693
j-mokyr@northwestern.edu

Professor W. Walker Hanlon
Department of Economics
Northwestern University
2211 Campus Drive
Evanston, IL 60208
847.491.8218
whanlon@northwestern.edu

Professor Giorgio Primiceri
Department of Economics
Northwestern University
2211 Campus Drive
Evanston, IL 60208
847.491.5395
g-primiceri@northwestern.edu