Nicholas Vreugdenhil

Northwestern
Economics

Placement Director:	Professor Alessandro Pavan	847-610-0813	alepavan@northwestern.edu
Placement Administrator:	Mercedes Thomas	847-491-5694	econjobmarket@northwestern.edu

Contact Information

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

Mobile: 312-613-8758
nicholasvreugdenhil2013@u.northwestern.edu
https://sites.northwestern.edu/nicholasvreugdenhil/
Citizenship: Australian

Fields

Research: Industrial Organization, Applied Microeconomics
Teaching: Industrial Organization, Microeconomics, Econometrics

Education

Ph.D., Economics, Northwestern University, 2019 (Anticipated)
Dissertation: Essays in Industrial Organization
Committee: Professor Robert Porter (Chair), Professor Mar Reguant, Professor Gaston Illanes
Bachelor of Science (Mathematics), Australian National University, 2013
Bachelor of Economics (First Class Honors), Australian National University, 2012

Fellowships & Awards

Dissertation Fellowship, Northwestern University, 2018
Distinguished Teaching Assistant, Northwestern University, 2015
Graduate Fellowship, Northwestern University, 2013
Prize for the top student in Economics (Honors), Australian National University, 2011
National Undergraduate Scholarship, Australian National University
Charles Hawker Memorial Scholarship, Australian National University

Teaching Experience

Teaching Assistant, Northwestern University, 2014-2016
Introduction to Microeconomics
Intermediate Microeconomics
Introduction to Applied Econometrics

Research Experience

Research Assistant, Professor Robert Porter, Northwestern University, 2016-2018
Research Assistant, Professor Aviv Nevo, Northwestern University, Fall 2015

Grants

Center for the Study of Industrial Organization (Northwestern), $2050

Conferences

Northwestern Energy Fest Egg-timer Session 2018
Monash University 2018
IIOC Rising Stars Session 2018

Job Market Paper

"Booms, Busts, and Mismatch in Capital Markets: Evidence from the Offshore Oil and Gas Industry"

How efficiently do markets reallocate capital in booms and busts, and what are the effects of policies designed to smooth out fluctuations? This paper exploits a novel dataset of contracts and projects in the offshore oil and gas industry to examine the role of matching in shaping industry reallocation. Oil and gas companies undertake projects (wells) but do not own capital (drilling rigs), and so must search for capital in a decentralized market. The quality of the match matters: more efficient rigs are suited to drilling more complex projects. Moreover, search frictions arise due to the idiosyncratic nature of the

projects. I find that booms - caused by increases in oil and gas prices - are associated with a *sorting effect*: booms increase the option value of searching for a better match which leads agents to avoid bad matches. This results in stronger sorting patterns in booms than busts, and less mismatch. I provide an identification strategy to disentangle changes in the composition of searching projects (demand) from the sorting effect. The strategy relies on inverting observed matches through a flexible search technology and acceptance sets to identify the composition of searching projects. I estimate a structural model of the industry that tractably incorporates rich dynamics in the distributions of searching agents. Comparing a model where agents are not selective in matching to the market benchmark, I find that the sorting effect increases welfare (measured in total profits) by 11.4%. Yet, frictionless matching would further increase welfare by 28.6%. Demand smoothing policies such as countercyclical tax credits - which are common in the industry - lead only to small increases in welfare.

Other papers

"Incomplete Environmental Regulation and Spatial Misallocation in the Offshore Oil and Gas Industry"
Environmental regulation is often specific to a particular region or country. When the stringency of environmental regulation differs between places this may cause capital to relocate to a region with weaker regulation. I investigate how proposed environmental regulations distort the relocation decisions of drilling rigs by estimating a model using contract and location data on all offshore rigs worldwide from 2011 to 2014. The model is based on the spatial search literature and incorporates heterogeneity in the quality of rigs, negotiated prices, and dynamics, which are all important features of the industry. Therefore, after new regulation is imposed, my model accounts for not just *how many* firms will leave but also *what kinds* of firms will exit. I use the model to investigate the welfare effects of a short-term drilling moratorium in the Gulf of Mexico as well as proposed policies to increase the environmental standards for the oil and gas industry in the United States.

Languages

English (native)

Programming Languages

Python, STATA

References

Professor Robert Porter
Department of Economics
Northwestern University
2211 Campus Drive
Evanston, IL 60208
847-491-3491
r-porter@northwestern.edu

Professor Mar Reguant
Department of Economics
Northwestern University
2211 Campus Drive
Evanston, IL 60208
847-491-8221
mar.reguant@northwestern.edu

Professor Gaston Illanes
Department of Economics
Northwestern University
2211 Campus Drive
Evanston, IL 60208
847-491-8227
gaston.illanes@northwestern.edu