# Neha Deopa

Department of International Economics Phone: (+41) 78 778 1291

The Graduate Institute (IHEID) Email: neha.deopa@graduateinstitute.ch

Chemin Eugène-Rigot 2A Homepage: nehadeopa.com

1202 Genève, Switzerland Nationality: Indian | Swiss Permit B

# Education

#### Ph.D. International Economics, The Graduate Institute of International and Development Studies

Supervisor: Prof. Ugo Panizza

September 2015 - Expected January 2021.

### M.A. International Economics, The Graduate Institute of International and Development Studies

Supervisor: *Prof. Ugo Panizza* September 2012 - September 2014

#### B.A. (Honours) Economics - University of Delhi

June 2009 - June 2012

# Research Fields

Environmental and resource economics

Firm behaviour: theory and empirical analysis

Applied stochastic processes

# Teaching Experience

The Graduate Institute (IHEID), Geneva:

International Development, Spring, 2016–2017

International Finance, Autumn, 2016–2017

International Trade, Spring, 2017–2019

Statistical Methods for Social Sciences, Autumn, 2017–2018

Macroeconomics, Autumn, 2018–19

# Work Experience

United Nations Conference on Trade and Development, April 2019 – Present Trade & Development Consultant

World Intellectual Property Organization, 2014 – 2015

Researcher - Economics and Statistics Division

Sidley Austin, 2013 – 2014

Researcher - International Trade and Economic Dispute

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# Skills & Languages

Programming: R, MATLAB, STATA GIS Software: ArcGIS, QGIS, Geoda English, Hindi (Fluent), French (A2)

# Conferences (incl. scheduled)

**2020:** Annual conference of the Italian Economic Association (RSA); Annual conference of the French Association of Environmental and Resource Economists; Bolivian Conference on Development Economics; Southern Economic Association; Monash Business School & Warwick University - Applied Young Economist Webinar; Johannes Kepler University Linz - Brown Bag Seminar; University of Geneva & IHEID - PhD Day

2019: IHEID Brown Bag Lunch; IHEID Development Therapy

### References

Ugo Panizza Professor of Economics The Graduate Institute (IHEID) ugo.panizza@graduateinstitute.ch +41 22 908 5952

Rahul Mukherjee Associate Professor of Economics The Graduate Institute (IHEID) rahul.mukherjee@graduateinstitute.c +41 22 908 5927 Cedric Tille
Professor of Economics
The Graduate Institute (IHEID)
cedric.tille@graduateinstitute.ch
+ 41 22 908 5928

Piergiuseppe Fortunato Economic Affairs Officer United Nations Conference on Trade and Development (UNCTAD) piergiuseppe.fortunato@unctad.org

### Research

Job Market Paper

Scenes from a Monopoly: Renewable Resources and Quickest Detection of Regime Shifts with Daniele Rinaldo [Latest version - arXiv]

We study the stochastic dynamics of a renewable resource harvested by a monopolist facing a downward sloping demand curve. We introduce a framework where harvesting sequentially affects the resource's potential to regenerate, resulting in an endogenous ecological regime shift. In a multi-period setting, the firm's objective is to find the profit-maximizing harvesting policy while simultaneously detecting in the quickest time possible the change in regime. This captures the idea of environmental monitoring and the use of *quickest detection* method allows us to easily translate our framework to real-time detection. Solving analytically, we show that a negative regime shift induces an aggressive extraction behaviour due to a combination of faster detection, a sense of urgency, and higher markup in prices. Precautionary behaviour can result due to increasing resource rent. We study the probability of extinction and show the emergence of catastrophe risk which can be both reversible and irreversible.

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# Working Papers

# Firm Decisions under Jump-Diffusive Dynamics

with Daniele Rinaldo [Latest Version - SSRN]

We present a model of firm investment under uncertainty and partial irreversibility in which uncertainty is represented by a jump diffusion. This allows to represent both the continuous Gaussian volatility and the discontinuous uncertainty related to information arrival, sudden changes and large shocks. The model shows how both sources of uncertainty negatively impact the optimal investment and disinvestment policies, and how the presence of large negative jumps can drastically affect the firm's ability to recover. Our results show that the standard Gaussian framework consistently underestimates the negative effect of uncertainty on firm investment decisions. We test these predictions on a panel of UK firms: we first structurally estimate the uncertainty parameters using multinomial maximum likelihood and differential evolution techniques and subsequently study their impact on firm investment rates, validating our model predictions.

#### Coronagraben. Culture and social distancing in times of COVID-19

with Piergiuseppe Fortunato - Covid Economics: Vetted and Real-Time Papers, Issue 39

Social distancing measures have been introduced in many countries in response to the COVID-19 pandemic. The rate of compliance to these measures has varied substantially. We study how cultural differences can explain this variance using data on mobility in Swiss cantons between January and May 2020. We find that mobility declined after the outbreak but significantly less in the German-speaking region. Contrary to the evidence in the literature, we find that within the Swiss context, higher generalized trust in others is strongly associated with lower reductions in individual mobility. Additionally support for a limited role of the state in matters of welfare is also found to be negatively associated with mobility reduction. We attribute our results to a combination of these cultural traits having altered the trade-off between the chance of contracting the virus and the costs associated with significant alterations of daily activities.

#### Superbug Stories: The Economic Burden of Antimicrobial Resistance

This paper explores the question of whether the rising demand for processed convenience foods, captured through increasing consumption of ready meals, is positively correlated with the rising rates of antimicrobial resistance (AMR) in humans. I begin by positing a relationship between demand for processed poultry and pork products and intensive livestock farming, in which an increasing demand is met by increasing intensification. Subsequently I investigate whether these increasing number of intensive pig and poultry farms have a positive correlation with the AMR rates in humans. I utilize a simple model within a von Thunen framework to examine the intensification of livestock production and its effects on land use and show how environmental externalities of these intensification can amplify pathways of exposure to AMR for humans. I estimate this relation by utilizing spatial maps of livestock intensification and combining them with UK county level data on AMR in humans and other socio-demographic factors from the UK household longitudinal study.

#### Policy

World Intellectual Property Indicators - 2014 and 2015

Hague Yearly Review - 2015

Patent Cooperation Treaty Yearly Review - 2015

Madrid Yearly Review - 2015