

Juan Carlos Ruiz-García
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Curriculum Vitae

EDUCATION

Ph.D. Candidate in Economics, CEMFI – Expected 2020
MPhil. In Economics and Finance, CEMFI (Final Grade: A) – 2015
B.A. in Economics (Finance specialty), Universitat de les Illes Balears UIB (with Honors) – 2009

RESEARCH FIELDS

Primary: Macroeconomics
Secondary: Firm Dynamics

RESEARCH

Job Market Paper – Financial Frictions, Firm Dynamics and the Aggregate Economy: Insights from Richer Productivity Processes

How do financial frictions affect firm dynamics, allocation of resources across firms and aggregate productivity and output? Is the nature of productivity shocks that firms face important for the effects of financial frictions? In order to answer these questions, I first use a comprehensive dataset of Spanish firms from 1999 to 2014 to estimate and characterize the firm productivity dynamics. I find that the productivity process is non-linear, as persistence and shock variability depend on past productivity. Furthermore, productivity shocks are non-Gaussian. These dynamics differ from the ones implied by the standard AR(1) process commonly used in the firm dynamics literature. I then build a model of firm dynamics with financial frictions in which productivity shocks are non-linear and non-Gaussian. The model is consistent with a host of evidence on firm dynamics, financial frictions, and firm's financial behavior. In the model economy, financial frictions affect the firm life cycle. Without financial frictions, the size-gap of an entrant firm with respect to an old one would be reduced by three fourths. Furthermore, profit accumulation, which allows firms to overcome financial frictions, is slow, and it only speeds up when firms are mature. As a consequence, the average exiting firm is smaller than it would be without financial frictions. The aggregate consequences of financial frictions are large. They result in misallocation of capital and reduce aggregate productivity by 16%. This figure is only 8% if productivity dynamics evolve according to a standard AR(1) process.

Work in Progress

Endogenous Non-linear Productivity Dynamics in a Standard Firm Dynamics Model (with Borja Petit – AReF)

Productivity dynamics differ from a standard AR(1) process. Particularly, they are non-linear: productivity persistence and shock variability depend on past productivity. Second, productivity shocks are non-Gaussian: the asymmetry and probability of having large shocks depend on the previous productivity levels. This paper asks if firm investment decisions can rationalize the productivity process seen in the data; and, how productivity dynamics are endogenously affected by distortions and policies, such as financial frictions or firing costs. To answer those questions, we extend

the standard firm dynamics model introducing endogenous productivity dynamics based on a “control cost” approach from game theory. In particular, firms in the model can choose the distribution of productivity shocks at a cost, which is proportional to the deviation from a benchmark distribution. We calibrate the model to the Spanish economy and show that our extension is able to reconcile the main facts regarding the dynamics of firms' productivity while keeping the model tractable. To illustrate the relevance of accounting for non-linear productivity dynamics endogenously, we quantify the effects of different frictions and policies using our calibrated model. We show that the results are quantitatively different from a framework with a standard AR(1) process and one with non-linear exogenous dynamics.

Macroeconomics of Poverty (with Nezih Guner – CEMFI, Diego Restuccia – University of Toronto and Guillaume Vandenbroucke – Federal Reserve Bank of St. Louis)

The elimination of poverty is the number one item in the United Nations' sustainable development goals. About 10% of the world population lives in extreme poverty with less than 1.9\$ a day, and nearly half of the world population has less than 5.5\$ a day. While the poverty rates decline significantly with GDP per capita, there are significant differences across countries that have a similar level of GDP per capita. What accounts for cross-country differences in poverty rates? Who are the poor? Along which economic and social dimensions do they differ from richer households? To answer these questions, we compile and harmonize household surveys for 61 countries from 1960 to 2014. The surveys cover almost the entire spectrum of the world GDP per capita distribution. We find that poor households work predominantly in agriculture, have lower educational attainment, and work more compared to non-poor households. These patterns also hold cross-sectionally within countries, i.e., within a country, households at the bottom of the income distribution are more likely to be in agriculture, have lower education, and higher labor supply. We then build a model with heterogeneous agents that can provide a structural interpretation of these facts, within and across countries. In the model, individuals make decisions on education, labor supply, and which sector of the economy to work. We use the model as a quantitative laboratory to understand the factors behind poverty.

ACADEMIC EXPERIENCE

Teaching Assistant

Macroeconomics I, CEMFI (graduate level) – 2018/19

Main Topics: Neoclassical Growth Models, Consumption, OLG, Firms, Money

Professor: Josep Pijoan-Mas

Student's Evaluation: 4.8 out of 5

Macroeconomics I, CEMFI (graduate level) – 2017/18

Main Topics: Neoclassical Growth Models, Consumption, OLG, Macro-Development

Professors: Margarida Duarte (University of Toronto) and Diego Restuccia (University of Toronto)

Student's Evaluation: 4.1 out of 5

Research Assistant

Prof. Nezih Guner, CEMFI – 2016/19

Prof. Paula Bustos, CEMFI – 2015/16

Prof. Enrique Sentana, CEMFI – 2014

REFEREEING

SERIEs: Journal of the Spanish Economic Association

GRANTS AND AWARDS

Ph.D. and MPhil. Scholarship, CEMFI – 2013/19

Economía y Competitividad (María de Maeztu Programme for Units of Excellence in R&D, MDM-2016-0684) – 2018/19

European Research Council under the European Union's Seventh Research Framework Programme (ERC Advanced Grant agreement 269868 (SPYKES – PI: Prof. Diego Puga, CEMFI) – 2015/16

Jaume Serra Crespí Award, Rotary Club Palma and UIB – 2009

Best Student Performance of Economics and Business Department, Agrupación Cadenas Hoteleras and UIB – 2008

Best Student Performance of Economics Degree, Fundació Sa Nostra and UIB – 2007

OTHER SKILLS

Languages – Spanish (Native), English (Fluent), Catalan (Native)

Software – Eviews, Latex, Matlab, Stata, Office

REFERENCES

Nezih Guner, CEMFI (advisor) – nezih.guner@cemfi.es

Josep Pijoan-Mas, CEMFI – pijoan@cemfi.es

Diego Restuccia, University of Toronto – diego.restuccia@utoronto.ca

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