Christopher Michael Evans

International Monetary Fund, 1900 Pennsylvania Ave NW, Washington, DC, 20431, USA www.ChrisotpherMichaelEvans.com

EXPERIENCE

International Monetary Fund

Economist (Economist Program), Research Department Economist (Economist Program), Western Hemisphere Department Fund Internship Program, Monetary and Capital Markets Washington DC, USA March 2022 – Present September 2020 – March 2022

July – October 2017

Universitat Pompeu Fabra

Teaching Assistant and Research Assistant

Barcelona, Spain September 2015 – September 2020

Bank of Canada

Business Visitor

Ottawa, Canada July 2019, January 2020

European Central Bank

PhD Trainee, Business Cycle Analysis Division

Frankfurt, Germany June – September 2018

Centre for Economics and Business Research

Economist

London, England January – August 2014

Innovation for Poverty Action

Fall Project Associate (Research Internship)

Kampala, Uganda

September – December 2013

PricewaterhouseCoopers

Audit Associate (Summer Internship)

Douglas, Isle of Man August 2011, August 2012

KPMG

Audit Associate (Summer Internship)

Douglas, Isle of ManJune – July 2011 and August – September 2011

EDUCATION

Universitat Pompeu Fabra

Barcelona, Spain

PhD in Economics

September 2016 – October 2020

- Focusing on Macroeconomics: Monetary Policy
 - o Advisor: Jordi Galí & Davide Debortoli
 - o PhD Committee: Edouard Schaal, Paolo Surico & Peter Karadi

Princeton University

Visiting Student (Visiting Student Research Collaborator)

New Jersey, USA March-April 2018

• Visiting: Nobuhiro Kiyotaki

Universitat Pompeu Fabra

Master of Research in Economics

Barcelona, Spain Graduated July 2016

Focused on Macroeconomics

Barcelona Graduate School of Economics

Master of Science in Economics

Barcelona, Spain

Graduated July 2015

University of Cambridge

Master of Philosophy in Economic (Research)

Cambridge, EnglandGraduated February 2014

University of Birmingham

Bachelor of Science in Mathematical Economics and Statistics

• **Degree Classification:** 1st Class Honours

Birmingham, England Graduated July 2012

Publications, Research Experience and Research Interests

Current Research Interests *Macroeconomics* – particularly conventional and unconventional monetary policy, heterogeneous agents, exchange rates, unemployment, and wage rigidities.

Working Papers

<u>"Weighted Median Inflation Around the World: A Measure of Core Inflation"</u> with Laurence M. Ball, Carlos Carvalho and Luca A Ricci – <u>IMF</u> and <u>NBER Working Paper</u>.

• The standard measure of core or underlying inflation is the inflation rate excluding food and energy prices. This paper constructs an alternative measure, the weighted median inflation rate, for 38 advanced and emerging economies using subclass level disaggregation of the CPI over 1990-2021, and compares the properties of this measure to those of standard core. For quarterly data, we find that the weighted median is less volatile than standard core, more closely related to economic slack, and more closely related to headline inflation over the next year. The weighted median also has a drawback: in most countries, it has a lower average level than headline inflation. We therefore also consider a measure of core inflation that eliminates this bias, which is based on the percentile of sectoral inflation rates that matches the sample average of headline CPI inflation.

"Assessing Chile's Pension System: Challenges and Reform Options" with Samuel Pienknagura (R&R)

• Chile's pension system came under close scrutiny in recent years. This paper takes stock of the adequacy of the system and highlights its challenges. Chile's defined contribution system was quite influential when introduced, and was taken as an example by other countries. However, it is now delivering low replacement rates relative to OECD peers, as its parameters did not adapt over time to changing demographics and global returns, while informality persists in the labor market. In the absence of reforms, the system's inability to deliver adequate outcomes for a large share of participants will continue to magnify, as demographic trends and low global interest rates will continue to reduce replacement rates. In addition, recent legislation allowing for pension savings withdrawals to counter the effects from the COVID-19 pandemic, is projected to further reduce replacement rates and increase fiscal costs. A substantial improvement in replacement rates is feasible, via a reform that raises contribution rates and the retirement age, coupled with policies that increases workers' contribution density.

Household Heterogeneity and the Transmission of Monetary policy

• Does a benchmark Heterogeneous Agent New Keynesian (HANK) model fit the heterogeneous response of monetary policy shocks observed in the data? The benchmark HANK model from Kaplan et al. (2018) implies that wealthier households benefit from a greater increase in their income than poorer households from an expansionary monetary policy shock. However, this prediction is at odds with the empirical evidence. Using data on U.S. households from the Consumer Expenditure Survey I find that households across the wealth distribution have comparable income responses to an expansionary monetary policy shock, while consumption increases the most for low wealth households. Motivated by these discrepancies I innovate on the profit distribution scheme, from the bonus-based scheme (profits are distributed in proportion to labour productivity as assumed in Kaplan et al. (2018)) to a dividend-based scheme (profits are distributed in proportion to illiquid asset

holdings). This innovation brings the distributional response from a monetary policy shock closer to the empirical evidence, however, a mixed scheme is required to ensure the response of aggregate investment is reasonable as it is highly dependent on the income of the wealthy hand-to-mouth households.

Optimal Monetary Rules with Downward Nominal Wage Rigidity

• At the individual and country-level nominal wages have been found to be downwardly rigid, such that they are more likely to increase than decrease. This has strong implications for optimal monetary policy in the standard New-Keynesian model, which typically assumes flexible wages or symmetric nominal wage rigidities. This constraint causes the optimal monetary policy to react asymmetrically to symmetric shocks. Furthermore, motivated by the welfare loss generated by using a standard Taylor rule, this paper searches for a new optimal simple rule that can replicate the optimal monetary policy in this framework. As an extension I solve a non-linear model that internalises this constraint at all periods in time, which dampens wage increases in a model where agents can flexibly increase their wage, thus creating an endogenous rigidity. This work adds to the literature by introducing the downward nominal wage rigidity (DNWR) constraint of Schmitt-Grohé and Uribe (2016) into a standard New-Keynesian model and finds an optimal simple rule that places a high weight on the unemployment gap. Moreover, as with other work on DNWR, this paper finds support for 'greasing the wheels' - positive trend inflation that helps to deflate real wage increases.

"Quantitative Easing and Long-Term Yields in Small Open Economies" with Antonio Diez de los Rios and Maral Shamloo

• We analyze government bond yield movements of the United Kingdom, Sweden and Switzerland, comparing the effectiveness of their asset purchase announcements with that of the Federal Reserve and the European Central Bank on these smaller open economies. We decompose government bond yields into (i) an expectations component, (ii) a global term premium and (iii) a country specific term premium to analyze two-day changes in 10-year yields around announcement dates. We find that, in contrast to the Federal Reserve and the European Central Bank's asset purchases, the programs implemented in these smaller economies have not been able to affect the global term premium. Furthermore, they have had limited, but significant, effect in lowering long-term yields.

"Conventional and Non-Conventional Monetary Policy: Between Core and Periphery" with Luca Onorante

• This paper explores the effectiveness of government bond and corporate security purchases by a central bank within a calibrated two-country New-Keynesian model featuring a banking sector (an extension of Gertler and Karadi (2011) and Andrade et al. (2016)) and a two-country monetary union. Focusing on the Euro-zone and motivated by the extended asset purchase programme conducted by the ECB we calibrate key parameters to match Core (Germany, France, Netherlands) and Periphery (Portugal, Italy, Ireland, Greece, Spain) data. We find that corporate security purchases have a stronger impact on inflation and on lift-off time from the Effective Lower Bound than equivalent government bond purchases. Corporate securities are claims on capital used in the firm's production function. This finding is in line with the ones of Gertler and Karadi (2013) for the U.S. economy.

Published: Columbia Economic Review Spring 2013 edition. Birmingham Undergraduate Dissertation "The Bargaining Problem with a pollution conscious government"

• Game Theory style Union-Firm Bargaining model using Nash Bargaining methods to attain the equilibrium outcome of labour and capital supplied. Where the bargaining equilibrium is influenced by the government who wishes to maximize its own preferences over pollution caused by capital. Where we vary the negative externalities caused by capital to observe different levels of government intervention.

Presentations

- 2023 RES Virtual Seminar Series, MCM Policy Forum and FDMD: Management Surveillance Meeting
- 2020 Banco de España, Banca d'Italia, Danmarks Nationalbank, Bank of England, Univeristy of Bath, Bank of Canada, Federal Reserve Bank of Kansas City
- 2019 SAEe, EEA-ESEM 2019, Second Catalan Conference, Theories and Methods in Macroeconomics T2M (Poster), UPF Macroeconomic Lunch, Spring Meeting of Young Economists, UPF Student Seminar.
- 2018 European Central Bank, Spring Meeting of Young Economists, UPF Macroeconomic Lunch.
- 2017 International Monetary Fund Quantum Seminar, UPF Macroeconomic Breakfast.
- 2016 UPF Macroeconomic Breakfast, UPF Student Seminar.

Organisation 2018 & 2019 co-organising the UPF Monetary Economics PhD group

Refereeing European Economic Review, Macroeconomic Dynamics

Additional Short Courses

May 2020 Using Python for Research. Online HarvardX course hosted by edX.

Summer 2019 Tools for Macroeconomists: Advanced Tools by The London School of Economics. Taught by Wouter den Haan and Pontus Rendahl.

Summer 2018 EABCN Training School: Heterogeneous Agent Models in Continuous Time with Monetary Policy Application taught by Benjamin Moll

Teaching and Research Assistantships

Teaching

- 2019 Introduction to Macroeconomics (Undergraduate), Universitat Pompeu Fabra, TA
- 2017 Macroeconomics II (Graduate), Barcelona Graduate School of Economics, TA
- 2016 Macroeconomics I (Graduate), Barcelona Graduate School of Economics, TA
- 2016 Advanced Macroeconomics (Undergraduate), Universitat Pompeu Fabra, TA
- 2015 Macroeconomics (Undergraduate), Universitat Pompeu Fabra, TA

Research

2017-2018 Research Assistant to Prof Julian di Giovanni

Awards and Bursaries

Awards

FI AGAUR funding for doctoral studies (2019-2020)

• Financial support from the Generalitat de Catalunya. Funding provided a stipend with no teaching obligations.

European Research Council Research Assistant

• Research Assistant to Julian di Giovanni, which is funded by an ERC fellowship. Income provided through employment as a research assistant.

Universitat Pompeu Fabra Teaching Assistantship

• Full tuition fee awarded plus stipend and additional income provided through employment as a teaching assistant.

Barcelona Graduate School of Economics/Universitat Pompeu Fabra Scholarship for Excellence

• Full tuition fee awarded plus stipend and additional income provided through employment as a teaching assistant.

Isle of Man Student Award

- Full Tuition fee awarded for Undergraduate Study.
- Partial Tuition fee awarded for Postgraduate Study.

Bursary

EBES travelling grant

• Funding to support travel to visit Nobuhiro Kiyotaki at Princeton University.

Albert Gubay Bursary

• Bursary awarded for studying at a university ranked in the top ten in the world (Cambridge).

SKILLS, ACTIVITIES & INTERESTS

Technical Skills: Matlab, Stata, EViews, LaTeX, LyX, R (basic), Python (basic).

Activities: Hockey, Lacrosse, Running

Languages: English (Native), Spanish (Intermediate B2).