

MIT Economics

TOMAS E. CARAVELLO

OFFICE CONTACT INFORMATION

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DOCTORAL STUDIES Massachusetts Institute of Technology (MIT)
PhD, Economics, Expected completion June 2027
DISSERTATION: “*Essays on Inflation and Monetary Policy*”

DISSERTATION COMMITTEE AND REFERENCES

Professor Iván Werning
MIT Department of Economics
77 Massachusetts Avenue, E52-536
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Professor Christian K. Wolf
MIT Department of Economics
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Professor Ricardo J. Caballero
MIT Department of Economics
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PRIOR EDUCATION	<i>Universidad Torcuato di Tella (UTDT)</i>	
	M.A., Economics	2023
	B.A., Economics	2019

CITIZENSHIP	Argentina	GENDER	Male
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LANGUAGES Spanish (native), English (fluent), German (basic)

FIELDS Primary Field: Macroeconomics
Secondary Fields: Finance, Time Series Econometrics

TEACHING EXPERIENCE	<i>Massachusetts Institute of Technology</i>	
	Principles of Macroeconomics (undergraduate, 14.02) TA to Professor Ricardo Caballero	2025
	Data Models and Decisions (Fellows MBA, 15.060)	2023-2024

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	TA to Professor David Gamarnik	
	Principles of Macroeconomics (undergraduate, 14.02)	2023
	TA to Professor Martin Beraja	
	Asset Pricing (PhD, 15.470)	2022-2023
	TA to Profs. Lira Mota and Lawrence D. W. Schmidt	
	<i>Universidad Torcuato di Tella</i>	
	Economics I (undergraduate)	2020-2021
	Lecturer	
	Microeconomics III (M.A. in Economics)	2023
	TA to Profs. Leandro Arozamena and Federico Wenscheilbaum	
	Microeconomics II (M.A. in Economics)	2022
	TA to Profs. Leandro Arozamena and Federico Wenscheilbaum	
	Time Series Econometrics (M.A. in Economics)	2020-2021
	TA to Professor Martin Sola	
	Financial Econometrics (M.A. in Finance)	2020
	TA to Professor Martin Sola	
	Risk, Uncertainty, and Finance (undergraduate)	2019-2020
	TA to Professor Martin Sola	
	Public Finance (undergraduate)	2019-2020
	TA to Professor Diego Fernandez Felices	
RELEVANT POSITIONS	Research Assistant to Professor Christian K. Wolf	2023-2025
	Research Assistant to Professor Ivan Werning	2022, 2024
	Research Assistant to Professor Martin Sola	2020-2021
FELLOWSHIPS, HONORS, AND AWARDS	<i>Massachusetts Institute of Technology</i>	
	Gordon B. Pye Dissertation Fellowship	2025-2026
	Public Speaking Certificate	2025
	John Krob Castle (1963) Graduate Fellowship in Economics	2022-2023
	MIT Presidential Fellowship	2021-2022
	<i>Universidad Torcuato di Tella</i>	
	Graduate Valedictorian/Best Postgraduate GPA	2023
	Undergraduate Valedictorian/Best Undergraduate GPA	2019
PROFESSIONAL ACTIVITIES	Conference Presentations: XXVIII International Economics and Finance Workshop, Insightful Minds in International Macroeconomics (IMIM, virtual), Reserve Bank of Australia (virtual). Referee: Journal of Political Economy; Quarterly Journal of Economics; Journal of Econometrics; Journal of Economic Dynamics and Control; Economic Letters	

PUBLICATIONS **“On the Sources of the Aggregate Risk Premium: Risk Aversion, Bubbles or Regime-Switching?”** (with John Driffill, Turalay Kenc, and Martin Sola). Journal of Economic Dynamics and Control, Volume 166, September 2024.

“Rational Bubbles: Too Many to Be True?” (with Zacharias Psaradakis and Martin Sola). Journal of Economic Dynamics and Control, 151, June 2023.

RESEARCH PAPERS **“Pricing Mistakes and the Non-Neutrality of Money”** (Job Market Paper)

Standard sticky-price models assume firms reset prices without error. Using UK and Argentine price microdata, I document that consecutive regular price changes are negatively correlated, more strongly at higher adjustment frequencies, and with negligible correlation beyond one spell. A large class of standard models cannot jointly match these facts, but models with idiosyncratic pricing mistakes can. I ask how mistakes affect monetary policy’s real effects. First, even when firms perfectly observe monetary shocks, adding mistakes to a standard model can increase cumulative output effects by changing which firms adjust prices. Second, once mistakes are possible, these real effects are completely unidentified from standard micro moments (frequency and kurtosis of price changes) because mistakes distort them. I restore identification with a sufficient-statistics result, by adding predictability coefficients. Accounting for mistakes implies around 50% larger real effects in the UK data.

“The Welfare Cost of Inflation Risk” (with Marc de la Barrera)

When borrowing and lending occur in nominal terms, inflation shocks redistribute wealth among agents. The prospect of these shocks reduces welfare ex-ante by exposing both sides to risk and distorting financial trade. We show that heterogeneity and incomplete inflation indexation are necessary for inflation risk to matter for welfare through this channel. The same ingredients generate a positive inflation risk premium even when inflation and aggregate consumption are uncorrelated, consistent with recent U.S. data. We also show that the welfare cost is governed by two key moments: the size of nominal positions and the inflation risk premium. We quantify this channel in a calibrated heterogeneous-agent economy matching key macro and asset-pricing moments and find that the welfare costs of inflation risk are between 0.18% and 0.3% of perpetual aggregate consumption, comparable in magnitude to the costs of trend inflation due to transaction frictions or price dispersion.

“Expectations and the Transmission of Monetary Policy”
(with Vicente Jimenez-Gimpel)

Monetary policy works largely through expectations: core transmission channels, including long-term yields, mortgage rates, and investment, depend on expected future policy. Markets interpret current choices as informative about the central bank’s real-time readings of the economy—readings that persist and guide future policy. When choosing a rate, the central bank takes as given how markets

interpret its decisions. However, its systematic behavior shapes that interpretation, and hence how strongly mistakes in those readings affect the economy. We show that this creates a time-inconsistency problem: optimal meeting-by-meeting policy can leave market expectations excessively sensitive to policy surprises, amplifying the effects of those mistakes. We quantify this mechanism's importance in an extended New Keynesian model estimated using macroeconomic data, Federal Reserve forecasts, natural-output uncertainty estimates, and inflation-swap responses to policy surprises. The optimal ex ante rule substantially reduces output-gap volatility by responding less aggressively overall, especially to estimates of natural output.

“Evaluating Monetary Policy Counterfactuals: (When) Do We Need Structural Models?” (with Christian Wolf and Alisdair McKay)

We give conditions under which knowledge of the effects of monetary policy shocks suffices to evaluate policy counterfactuals that change not just the monetary rule, but also the nature of equilibrium selection. For example, the effects of monetary policy shocks in a regime of monetary dominance can be used to evaluate counterfactual outcomes even under a regime switch to fiscal dominance. Since the empirical literature delivers the causal effects of short-lived monetary shocks, the sole remaining role of model structure in evaluating such counterfactuals is thus to extrapolate from the effects of transitory to those of more persistent policy rate changes. Among popular models of monetary policy transmission, household heterogeneity (as in the burgeoning “HANK” literature) does not change this extrapolation very much, while.

“FCI-star” (with Ricardo J. Caballero and Alp Simsek)

Central banks rely on r^* —the neutral interest rate—to assess policy stance. However, monetary policy affects activity through broad financial conditions, not only the short-term rate. We propose FCI^* , the neutral level of a financial conditions index consistent with output at potential. Unlike r^* , FCI^* is insulated from financial fluctuations: when asset prices move, FCI captures their estimated effect on output, leaving FCI^* to reflect only what the macroeconomy requires. In U.S. data, r^* co-moves with the equity premium; FCI^* does not. FCI gaps provide useful real-time guidance on policy stance, especially when financial conditions diverge from the policy rate.

“Reassessing Central Bank Reputation: Beyond Long-Run Expectations” (with Alex Carrasco-Martinez and Pedro Martinez-Bruera)

We study how shifting perceptions about the central bank's relative preference for inflation stability shape monetary policy. In a New Keynesian model with imperfect information, we show that a hawkish reputation—the perception that the bank places greater weight on inflation relative to other objectives—reduces stabilization costs by dampening the pass-through of shocks to short-run inflation expectations. Using U.S. private-sector forecast data, we find evidence of this

mechanism even when long-run expectations are anchored and stable. A central bank that internalizes the value of reputation reacts more strongly to cost-push shocks than a myopic bank. Moreover, appointing a more hawkish but myopic central banker achieves welfare gains close to those under the optimal policy. During the Great Moderation, internalizing the value of reputation is equivalent to appointing a central banker whose weight on inflation is roughly twice the bank's true preference.

“Financial Conditions Targeting” (with Ricardo J. Caballero and Alp Simsek)

Non-fundamental inflows into the stock market loosen financial conditions and raise output, while the policy rate responds gradually. Such financial noise explains up to 20% of the variance of financial conditions and output. These facts motivate a macroeconomic model with noise traders, risk-averse arbitrageurs, and gradual interest rate adjustment. In this model, Financial Conditions Index (FCI) targeting can improve macroeconomic stabilization: the central bank announces its expected FCI as a soft near-term target and adjusts the policy rate to keep conditions near it. This commitment reduces FCI volatility, thereby “recruiting” arbitrageurs to insulate the FCI and aggregate demand from noise.

“Disentangling sign and size non-linearities” (with Pedro Martinez-Bruera)

We study the identification of non-linear causal effects of macroeconomic shocks using local projections augmented by a non-linear function of the shock of interest. Our analysis focuses on two types of non-linearities: by size and sign of the shock. We characterize the estimand of our non-linear local projections. Our main result is that the local projections identify pure sign non-linearities when they include an even non-linear function of the shock and vice-versa for size non-linearities and odd functions. We illustrate our method with an application to oil supply news shocks, documenting evidence in favor of size (but not sign) non-linearities.

“Chronicle of a Dollarization Foretold: Inflation and Exchange Rates Dynamics” (with Pedro Martinez-Bruera and Iván Werning)

We study the effects of an anticipated dollarization, announced today but planned to be implemented at some future date, in a simple open-economy model. Motivated by the profile of countries considering dollarization we make the following assumptions. First, the government faces a scarcity of dollars to pledge for the future conversion of domestic currency. Second, without dollarization monetary policy finances a deficit via seignorage. We focus on the pre-dollarization period. Our results are as follows. First, the announcement leads to a discrete devaluation on impact. Second, after this jump the devaluation rate also rises relative to the no dollarization benchmark. Finally, the devaluation and inflation rate may rise over time.

“Dollarization Dynamics” (with Pedro Martinez-Bruera and Iván Werning)

This study explores the consequences of dollarizing an economy with an initial dollar shortage. We show that the resulting transitional dynamics are tantamount to that of a “sudden stop”: consumption of tradable goods fall, the real exchange rate depreciates abruptly by a discrete drop in domestic prices and wages followed by a gradual appreciation from positive inflation. With nominal rigidities the economy first falls into a recession. This is true even if all prices and wages are allowed to adjust flexibly on impact. The subsequent recovery in activity always “overshoots” the steady state: the non-tradable sector transitions from the initial recession to a boom, then asymptotes to its steady state.

RESEARCH IN PROGRESS

“Pricing Mistakes at High Inflation: Theory and Evidence from Argentina”

“When Does Uncertainty Justify Monetary Policy Gradualism?” (with Vicente Jimenez-Gimpel)