# VICTOR M. ORESTES


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**DOCTORAL STUDIES**

Massachusetts Institute of Technology (MIT)
PhD, Economics and Statistics, Expected completion June 2025
DISSERTATION: Essays in Financial Economics and Econometrics

DISSERTATION COMMITTEE AND REFERENCES

Professor Stephen Morris
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Professor Jonathan Parker
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**PRIOR EDUCATION**

São Paulo School of Economics - FGV — 2019
Msc Economics

University of São Paulo — 2016
Bsc Economics

**LANGUAGES**

English (advanced), Spanish (intermediate), Portuguese (native)

**FIELDS**

Primary Fields: Finance, Macroeconomics
Secondary Field: Econometrics

**TEACHING EXPERIENCE**

14.192 Advanced Research and Communication (Graduate) — 2022-2024
Teaching Assistant to Professors Nikhil Agarwal, Amy Finkelstein, and Stephen Morris

14.380 Statistical Methods in Economics (Graduate) — 2022
Teaching Assistant to Professor Whitney Newey

14.30 Statistical Methods in Economics (Undergraduate) — 2022-2023
Teaching Assistant to Professors Alberto Abadie and Tetsuya Kaji

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|---|---|---|
| | 14.454 Economic Crises (Graduate); 14.02 Macroeconomics (Undergraduate). Professor Ricardo Caballero. | 2022 |
| **RELEVANT POSITIONS** | Consultant - Central Bank of Brazil: Central Bank Digital Currency Pilot projects | 2022- |
| | Research Assistant to Professor Stephen Morris | 2021-22 |
| **PROFESSIONAL ACTIVITIES** | **Referee:** Journal of Political Economy, Journal of the American Statistical Association | |
| **FELLOWSHIPS, HONORS AND AWARDS** | George and Obie Schultz Fund Grant ($14,000) | 2024 |
| | Best paper in Econometrics at the Brazilian Econometric Society Meeting (*Quantile Mixture Models: Estimation and Inference*) | 2023 |
| | Boston FED Dissertation Fellowship | 2023 |
| | Department of Economics Fellowship, MIT | 2019 |
| | Inter-American Development Bank Fellowship | 2018 |
| | CAPES Master`s Fellowship, Brazil | 2017 |
| | Merit Fellowship, FGV-EESP, Brazil | 2017 |
| | 1st place in the National Exam for Admissions in Economics Graduate Programs (ANPEC), Brazil | 2016 |

**RESEARCH PAPERS**

**Corporate Effects of Monetary Policy: Evidence from Central Bank Liquidity Lines (Job Market Paper)** (with Luiz Alvarez and Thiago Silva)

Monetary policy tools increasingly involve operations with corporate assets. This paper examines how these tools directly impact real activity by influencing demand for firms' debt instruments and firms' liquidity management policies. Using quasi-experimental variation from the inclusion of eligible corporate debt instruments in the Central Bank of Brazil's collateral framework, combined with a novel dynamic regression discontinuity design methodology, we find that eligibility increased firms' debt issuance, modestly decreased spreads, and reduced firms' holdings of safe assets, indicating a decrease in precautionary savings and leading to significant increases in firms' employment and supply chain liquidity. To interpret this mechanism, we discuss how inelastic (segmented) financial markets make this policy induce a permanent borrowing subsidy, functioning like a liquidity injection that can relax firms' borrowing constraints. This easing of expected future borrowing constraints reduces firms' liquidity risk, amplifying the policy passthrough as firms have more incentives to reduce cash hoarding and expand production. We develop a semi-structural approach based on our reduced-form RDD estimates to measure firms' response, finding that each 0.8% induced borrowing subsidy leads to 1% increase in debt issuance, 0.2% reduction in cash holdings and a 0.4% increase in the wage bill.

**Firm-Level and Aggregate Effects of Cheaper Liquidity: Evidence from Factoring** (with Thiago Silva and Henry Zhang)

We show that firms experience large contemporaneous increases in sales and purchases after receiving cheaper liquidity. We focus on factoring, defined as the supplier-initiated sale of receivables. In Brazil, receivables funds (FIDCs) securitize receivables for institutional investors. By assembling a novel transaction-level dataset of factoring with other credit operations for all registered firms and FIDCs, we construct a shift-share instrument for the supply of factoring financing based on FIDC flows. We then use a novel combination of electronic payments, trade credit, and employer-employee matched data to estimate the impacts. A flow-induced increase in receivables demand reduces firms' factoring interest rate. In response, firms demand more permanent labor and less temporary labor. In our model, these effects arise from factoring's purpose of reducing cash inflow volatility, helping firms match inflows to outflows, which firms otherwise achieve at an efficiency cost through substitution across labor types. Using our model, we estimate that an aggregate decrease in the economy-wide factoring spread by 1 percentage point leads to 0.3 to 0.5 percentage point increases in aggregate output and wages.

**Quantile Mixture Models: Estimation and Inference** (with Luiz Alvarez)

Nonparametric density mixture models are popular in Statistics and Econometrics but suffer from computational and inferential hurdles. This paper introduces nonparametric quantile mixture models as a convenient counterpart, discusses several applications, and proposes a computationally efficient sieve estimator based on a generalized method of L-moments. We develop a full inferential theory for our proposed estimator. In doing so, we make several contributions to statistical theory that allow us to extend a numerical bootstrap method to high-dimensional settings. We show that, as a direct byproduct of our theory, we can provide an inference method for the distributional synthetic controls of Gunsilius (2023), a novel approach to counterfactual analysis for which formal inference methods were not yet available. As an empirical application of the latter, we apply our proposed approach to inference in assessing the effects of a large-scale environmental disaster, the Brumadinho barrage rupture, on the local wage distribution. Our results uncover a range of effects across percentiles, which we argue are consistent displacement effects, whereby median-earning jobs are replaced by low-paying contracts.

**Volatility and under-insurance in economies with limited pledgeability: Evidence from the Frost Shock** (joint with Thiago Silva and Henry Zhang)

Using transaction-level data on payments, credit, and insurance, we measure the impact, propagation, and adjustment by coffee farmers to an extreme weather shock in Brazil. The severe frost of July 2021 primarily damaged the perennial coffee trees, a negative shock to farmers' capital stock that was large enough to increase world prices. Consistent with an increase in the marginal return to capital, we find that insured farmers increase expenditure on capital replenishment inputs and decrease expenditure elsewhere. Uninsured farmers reduced expenditure as well as both insurance and credit take-up after the shock. We show how this pattern is consistent with models of imperfect pledgeability of a firm's collateral, where constrained firms neither insure (ex-ante) nor recover from a shock (ex-post). Limited commitment endogenously generates under-insurance through upfront payment of insurance premia and reduced borrowing capacity post-shock due to the decrease in total collateral. We discuss two equilibrium implications of this mechanism regarding the inefficacy of emergency credit lines in targeting liquidity constrained firms and the amplification of output volatility and drop due to an increase in risk of extreme weather shocks.

**RESEARCH IN PROGRESS**

**Forward Guidance, Speculation, and Liquidity Shortfalls in an OTC Carbon Credit Market** (with Luis Alvarez, Thiago Silva and Henry Zhang)

We estimate the effects of forward guidance on the supply of carbon credits when trading is subject to over-the-counter (OTC) frictions, focusing on the CBIO market in Brazil. We combine the OTC tape data with firms' carbon credit holdings, balance sheet outcomes, and interfirm payments to study the impact on demand for carbon credits, borrowing, investment, and supply chain spillovers. We focus on the rapid increase in prices in June 2022 followed by a crash in July 2022, driven by speculation about forward guidance and an unexpected change in carbon credit policy. We show how low liquidity generated the volatility, and then propagated by limited float, insufficient hedging options, and the absence of designated market-makers.

**The Macrofinancial Link Between Tariffs, Exchange Rates, and Trade** (with Sarah Gertler)

We examine how macrofinancial factors, particularly the interest rate, shape exchange rate and trade responses to tariff shocks. First, we find that US import tariffs substantially influence the exchange rate, and in contrast little effect from tariffs imposed on the US. Second, we find that countries with which maintain higher interest rates than the US experience larger depreciations than lower-interest-rate countries. Third, we present evidence that high-interest-rate countries' trade are subject to higher demand elasticities, which is driven by supply- or demand-side factors depending on exchange rate regime. Our findings are consistent with a model of centrality in which financial and real factors co-amplify and can offset each other on aggregate but not necessarily in terms of incidence.

**POLICY WRITING**

**Brazil's Central Bank Digital Currency: Improving Financial Infrastructure with Programmability** (with Robert Townsend)
*LIFT papers*. Volume 5, Issue 5 (2023).

The paper shows how programmable CBDCs, like Brazil's Digital Real, address financial inefficiencies and enable new applications, improving credit policies, foreign investment, and asset transfers. It also highlights how the first round of

Brazilian CBDC pilot projects aligns with this agenda. It also explores design challenges and potential fiscal and monetary benefits.