MARTSELLA DAVITAYA

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EDUCATION

Columbia University

Ph.D. in Economics Candidate — 2023 (expected)

M.Phil. in Economics — 2020

M.A. in Economics — 2019
- Fields: Macroeconomics, Econometrics (secondary)

NRU Higher School of Economics and University of London International Programs
International College of Economics and Finance

B.Sc. in Economics (HSE) / B.Sc. in Economics and Finance (UoL) — 2013 – 2017
- Graduated with Honors (HSE) and First-Class Honors (UoL)

RESEARCH

My research focuses on monetary economics and household finance and utilizes microeconomic data to study the effects of monetary policy and heterogeneous behavior on macroeconomic outcomes.

Monetary Policy Implications of Heterogeneous Mortgage Refinancing with A. Burya

We show that credit score heterogeneity dampens monetary policy transmission through fixed-rate mortgages. Using Fannie Mae Single-Family Loan-Level historical data, we show that a 1% expansionary shock increases the refinancing probability for borrowers with a FICO credit score of 800 twice as much as that of borrowers with a FICO score of 700. We then develop a heterogeneous agent refinancing model with credit score heterogeneity and find that this type of heterogeneity dampens the housing wealth response to monetary policy by 15%, compared to a standard model with only mortgage rate heterogeneity. Borrowers with lower credit scores benefit from refinancing more than borrowers with higher credit scores, but face more difficulties obtaining refinance loans, resulting in a smaller wealth response.

Anchored or De-anchored? Inflation Compensation and Monetary Policy with A. Burya and S. Mishra

If far-ahead inflation compensation is insensitive to incoming economic news, then inflation expectations are anchored. Using daily bond yield data, we show that inflation compensation is less sensitive to monetary policy shocks in the U.S. if the Fed is more responsive to inflation during the most recent CPI release. The empirical strategy consists of two steps. First, we construct a measure of market expectations about the Fed's reaction to inflation, which equals changes in different interest rates unexplained by the size of inflation shock or exogenous monetary policy. Second, we estimate the sensitivity of inflation compensation's response to monetary policy conditional on the expectations about the Fed's reaction to inflation. Our estimates suggest anchoring of long-term inflation expectations in the U.S.

Recessions, Social Security and Retirement

The main difficulty in studying the effect of retirement income on labor supply is that factors that affect retirement income correlate with the labor force participation rate. Using the Health and Retirement Study and Social Security Administration income data, I overcome this difficulty by exploiting the fact that the Social Security benefit is a function of the economic conditions when the worker turns 60. My estimates suggest that the labor supply elasticity of older workers is -0.19 at the extensive margin and -0.57 at the intensive margin. This estimate is relevant for optimizing public and fiscal policy implementation because retirement decisions affect the government budget, and older workers constitute a significant share of the overall labor force.

Games of Cheating with Kosmas Marinakis

We develop a model of risky information transmission between a higher and a lower ability agent, which closely resembles academic cheating behavior. Assuming no synergy effects between agents or correlation of outputs, we derive a substitution and a strategic effect, both of which dictate the behavior of agents when information transmission is feasible. We show that the higher ability agent may find it strategically useful to moderate her effort in order to limit the supply of information and curb her risk. We also find that the use of a relative compensation scheme may cause cheating activity to increase when the coefficient of relative incentives is not sufficiently high. Even when relative incentives are powerful enough to mitigate cheating, this seriously distorts the incentives, causing high-ability agents to further cut down on effort. We conclude that performing the group is higher when similar ability agents are matched, and that the only cost-free way to deter cheating is to match agents of similar abilities together, since the risk of transmitting information will offset its benefit. We also extend the model to include the case where the higher ability agent can choose the level of her cheating supply.

AWARDS, FELLOWHIPS & GRANTS

Awards

Wueller Teaching Award, best teaching assistant in M.A. courses (Columbia University)	2021 – 2022
Wueller Teaching Award, runner-up for best teaching assistant in M.A. courses, online format (Columbia University)	2020 – 2021
Wueller Teaching Award, runner-up for best teaching assistant in M.A. courses (Columbia University)	2019 – 2020
Prize for Academic Achievement (University of London)	2017
Academic Excellence Award (University of London)	2017
Top 8th in Econometrics Universiade organized by Moscow State University	2017
Top 15% High-Quality Award in Sanofi Health Guardians Business Consulting Case Competition (1,380 competitors)	2016

Fellowships

Dean's Fellowship (Columbia University)	2017 – 2023
Dissertation Fellowship (Columbia University)	2022
Wueller Fellowship (Columbia University)	2017 – 2022
Merit-based scholarship covering 75% of tuition fees (Higher School of Economics)	2014 – 2017
Merit-based scholarship covering 60% of tuition fees (Higher School of Economics)	2013 – 2014

Grants

GSAS Matching Travel Grant (Graduate School of Arts and Sciences, Columbia University)	2022
Economics Fluctuations Colloquium Travel Grant (Department of Economics, Columbia University)	2022
The Program for Economic Research (PER) Travel Grant (Columbia University)	2022

TEACHING EXPERIENCE & TRAINING

Columbia University

Teaching Development Program (Foundational Track) at the Center for Teaching and Learning	Fall 2022 (expected)
Teaching Assistant in ECON GR6212: Introduction to Econometrics I (Graduate) for Professor Seyhan Erden	Fall 2021
Junior Instructor in BUFE0220: Introduction to Business, Finance, and Economics (Programs for High School Students) for Raheem A. Haji	Summer 2021
Teaching Assistant in ECONGU4213: Advanced Macroeconomics (Undergraduate) for Professor Irasema Alonso	Spring 2021
Teaching Assistant in ECON GR6212: Introduction to Econometrics I (Graduate) for Professor Seyhan Erden	Fall 2020
Teaching Assistant in GR5711: Financial Economics (Graduate) for Professor Steven Wei Ho	Spring 2020
Teaching Assistant in ECON GR6212: Introduction to Econometrics I (Graduate) for Professor Seyhan Erden	Fall 2019
Teaching Assistant in ECONUN3211: Intermediate Microeconomics (Undergraduate) for Professor Steven Olley	Spring 2019
Teaching Assistant in ECONUN1105: Principles of Economics (Undergraduate) for Professor Caterina Musatti	Fall 2018

National Research University - Higher School of Economics

Teaching Assistant at the Department of Economics (Undergraduate) for Professor Lubov Schukina	2015 – 2016
Lecturer and Class Teacher at the ICEF Evening School (Programs for High School Students)	2015 – 2016

WORK EXPERIENCE

Columbia Business School

Research Assistant for Professor Steven Zeldes	2019 – 2020

- Tested cointegration between stock prices and GDP per capita for 49 countries using the Global Financial Database

Promsvyazbank

Summer Intern at the Department of Corporate Business Development	2015

- Developed the VBA code for filtering and analyzing the data on the corporate bank clients

CONFERENCES & PRESENTATIONS

AREUEA (The American Real Estate and Urban Economics) National Conference	2022
Successfully Navigating Your PhD: A Mentoring Workshop for 3rd Year + Women & Non-Binary PhD Students in Economics & Economics-Adjacent Fields	2020

SKILLS

Technical: MATLAB, STATA, R, EViews, VBA Excel

Languages: Russian (Native), Georgian (Native), English (Fluent), Spanish (Intermediate)

MISCELLANEOUS

Member of Columbia Econ Department Soccer Team "The New Kanesians" *(Keynes+H.Kane)*	Sep 2021 –
Board Member (2017 – present) and President (2019 – 2020) of the Association of Graduate Economics Students (AGES)	Sep 2017 –
Member of Mentoring Program at the International College of Economics and Finance	2014 – 2016
Member of IcefCrew – student community that organizes all extracurricular events at the ICEF	2013 – 2016
Member of the Association of Intellectual Clubs at the Higher School of Economics	2013 – 2016