9th North American Conference on Industrial Engineering and Operations Management
Washington D.C., USA, June 4-6, 2024
Publisher: IEOM Society International, USA DOI: 10.46254/NA09.20240077
Published: June 4, 2024

A New Look at Money Demand in the United States

Ning Jia, Lillian Kamal, and Bharat Kolluri
Department of Finance, Analytics, Risk Management and Economics,
University of Hartford
West Hartford, CT 06117
njia@hartford.edu, kamal@hartford.edu, and kolluri@hartford.edu

Abstract

With the recent inflationary experience in the United States, and the rise in interest rates in the economy, the role of money demand, and the stability of money demand, have both come into sharp focus. This paper studies the factors that affect aggregate demand for money, using quarterly time series data for the United States. We pay special attention to income, interest rate and inflation effects on money demand. We also examine the impacts of government debt, demographic factors, and financial innovation on the money demand function. For robustness purposes, the study utilizes different money measures, and also controls for the pandemic time period. The modelling techniques address issues of unit roots and cointegration, and error-correction methods. Our paper further derives long-term elasticity and semi-elasticity estimates. We conclude with policy recommendations, and the implications for business management and entrepreneurship.

Keywords
Money Demand, Interest Rates, Disposable Income, Elasticity

Biographies

Ning Jia holds a Ph.D. in Pure Mathematics from the University of Minnesota and a Bachelor of Business in Finance (with a minor in Computer Science) from Fudan University in Shanghai. Dr. Jia has also worked as a pricing actuary at the Hartford Financial Group. She is currently the Director of the Business Analytics Program, and Assistant Professor in Business Analytics, at the Barney School of Business at the University of Hartford. Dr. Jia teaches undergraduate and graduate courses in business statistics, business analytics, predictive modeling, and business analytics capstone. Her courses involve the use of advanced data visualization and data analytics techniques, and the use of R and Python. She has held both research and industry roles in biostatistics, insurance, marketing, and healthcare, analyzing both big and small data. Dr. Jia's research work focuses on advanced econometric models, and she has recently published a research article on the gravity model of international trade (co-authored with Dr. Lillian Kamal)

Lillian Kamal holds a Ph.D. in Economics from West Virginia University, and Master's (Honours) and Bachelor's (Honours) Degrees in International Business Administration from the United States International University in Nairobi, Kenya. Dr. Kamal's research interests lie in macroeconomics, monetary economics, and international economics. She is particularly interested in how financial systems contribute to economic growth in less developed countries. She is also interested in social entrepreneurship and microfinance, and has taught classes in these areas at Northwestern University Lillian is currently the Associate Dean of Academic Planning and Student Academic Services, and an Associate Professor of Economics at the Barney School of Business at the University of Hartford. Dr. Kamal was the winner of the 2018 university-wide Larsen teaching award at the University of Hartford, and has recently published a research article on the gravity model of international trade (co-authored with Dr. Ning Jia).

Bharat Kolluri is Professor of Economics at the Barney School of Business, University of Hartford, West Hartford, Connecticut, USA. He earned BA (Honours) in Mathematics and MS in Statistics from Andhra University, India, Masters, and Ph.D.in Economics from State University of New York at Buffalo. Dr. Kolluri's articles have appeared in journals such as The Review of Economics and Statistics, Applied Economics and Review of Quantitative Finance and Accounting. He has also published a co-authored textbook entitled Introduction to Quantitative Methods in Business: Using Microsoft Office Excel (John Wiley & Sons). Dr. Kolluri received the prestigious university-wide Bent Award for Scholarship/Creativity at the University of Hartford Commencement ceremony in 2004. He recently presented his research on savings in the US (co-authored with Dr. Ning Jia and Dr. Lillian Kamal) at the Eastern Economic Association conference. His current research activity deals with interest elasticity of savings among US households, stock returns and expected inflation, across major global stock markets.