Nuriye Melisa Bilgin

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Academic Positions

Universita Bocconi, Baffi Carefin
Postdoctoral Researcher, *2020–Present*

Education

Koc University
Ph.D. in Economics, *2014–2020*
Thesis Title: Essays in Production Networks, Productivity and Inflation Connectedness

Koc University
B.S. in Industrial Engineering, *2010–2014*

Experience

World Bank
Consultant *2019–Present*

Awards

2020: Doctoral Dissertation Award, Turkish Economic Association

2020: GSSSH Academic Excellence Award, Koc University

2018: Best Paper Award, Society for Business Excellence

Teaching

2018: Instructor, Introduction to Macroeconomics, Koc University

Presentations

2020: Econometric Society Winter School, INFER, Econometric Society World Congress

2019: European Winter Meeting of the Econometric Society

2018: Central Bank of Republic Turkey Seminar Series Ankara, Advances in Macro-Finance Bilgi University, 9^{th} International Research in Business and Management Nice, 13^{th} International Conference on Business Excellence Bucharest

2017: 7^{th} All-Istanbul Workshop

2016: SAP Central Bank Executive Summit, Heidelberg

Skills

MATLAB, R, Stata, Gephi, Latex, Eviews

Referee

Economic System Research

Working Papers

Production Networks and Learning-by-Networking

This paper analyzes the interaction between firm heterogeneity, domestic and international production networks, and firm productivity. A detailed analysis of 2006-2017 data shows that input- output linkages across Turkish manufacturing firms provide an amplification mechanism for shocks. After finding strong evidence that supports the asymmetry of the firm-level production networks, I build a model that lays a theoretical foundation upon which establish a linkage between productivity and performance in production networks. Empirical results support the theoretical model and demonstrate the close relationship between the sophistication of a firm's production network, its productivity, and its entry decision regarding export markets. This study provides evidence on how firms become more productive if they are part of a sophisticated production network while proposing a hypothesis of learning- by-networking with other firms in their production network. Productivity gains also correlated to the firm's network position in the supply chain, industry class, and the diversity of its export destinations.

Producer Price Inflation Connectedness and Input-Output Networks

, with Kamil Yilmaz

We analyze the transmission of producer price inflation shocks across the U.S. manufacturing industries from 1947 to 2018 using the Diebold-Yilmaz Connectedness Index framework, which fully utilizes the information in generalized variance decompositions from vector autoregressions. The results show that the system-wide connectedness of the input-output network Granger-causes the producer price inflation connectedness across industries. The input-output network and the inflation connectedness nexus is stronger during periods of major supply-side shocks, such as the global oil and metal price hikes, and weaker during periods of aggregate demand shocks, such as the Volcker disinflation of 1981-84 and the Great Recession of 2008. These findings are consistent with Acemoglu et al. (2016)'s conjecture that supply shocks are transmitted downstream, whereas demand shocks are transmitted upstream. Finally, preliminary results show that Trump tariffs caused an increase in the system-wide inflation connectedness in the first half of 2018, due to shocks mostly transmitted from tariff-targeted industries, namely, basic metals, fabricated metals and machinery.

Production Networks and Inflation Spillovers

, with Kamil Yilmaz

This paper investigates the relationship between input-output networks and the transmission of inflation shocks across manufacturing industries in South Korea, an economy that is open to external shocks. Using the dynamic inflation connectedness measures for 1971-2020, we show that production networks are responsible for the amplification of inflation shocks during times of supply shocks, such as the oil price shocks of 1973-74 and 1979-80. On the contrary, production networks are weakly associated with inflation transmission across sectors if the shocks originate from the demand-side such as the East Asian Financial Crisis of 1997.

Tracking COVID-19 Spread in Italy with Mobility Data

This paper provides insights for policymakers to evaluate the impact of staying at home and lockdown policies by investigating possible links between individual mobility and the spread of the COVID-19 virus in Italy. By relying on the daily data, the empirical evidence suggests that an increase in the number of visits to public spaces such as workspaces, parks, retail areas, and the use of public transportation is associated with an increase in the positive COVID-19 cases in a subsequent week. On the contrary, the increased intensity of staying in residential spaces is related to a decrease in the confirmed cases of COVID-19 significantly. Results are robust after controlling for the lockdown period. Empirical evidence underlines the importance of the lockdown decision. Further, there is substantial regional variation among the twenty regions of Italy. Individual presence in public vs. residential spaces has a more significant effect on the number of COVID-19 cases in the Lombardy region.