

**Title: The Effect of Supply Base Diversification on the Propagation of Shocks**

**Speaker: Girish Bahal, University of Western Australia Business School**

**Area: Economics**

**Date: 11.10.2023, Venue: P11 @ 4PM**

**Abstract:**

This paper studies the role of supply base diversification on the propagation of shocks through production networks. We identify exogenous shocks with the occurrence of natural disasters in the US between 1978 and 2017. We find that affected suppliers reduce customers' sales growth by  $\approx 25\%$ , on average. Notably, firms with intermediate input purchases spanning many suppliers, geographies, or industries attenuate shocks to their suppliers by  $\approx 70-80\%$ . We interpret our empirical findings using a general equilibrium model of production networks. First, we establish that diverse firms exhibit gross substitutability among inputs relative to non-diverse firms, suggesting diverse firms insulate themselves by substituting away from disrupted suppliers. We then use the model to estimate the macroeconomic effect of supply base diversity, finding real GDP would have been  $\approx \$1.7$  trillion lower in 2017 in the absence of diversified firms.

**Speaker Profile:**



Dr. Girish Bahal is a Senior Lecturer in Economics at the UWA Business School. His key research areas are networks in economics, macroeconomics, and labor economics. He has published in journals like the Journal of Development Economics, American Journal of Agricultural Economics, and World Bank Economic Review, among others.

Before joining UWA, Girish worked at the International Monetary Fund (Washington D.C.) and the National Council of Applied Economic Research (New Delhi). Girish received his MPhil and Ph.D. degrees in Economics from Cambridge University (UK) where he was a Cambridge-Nehru scholar.

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