Gang Zhang, University of Virginia

Sectoral Comovement during the Great Recession

(Job Market Paper)

We document three stylized facts about sectoral comovement in the United States during the Great Recession. First, the distribution of pairwise correlations of output growth rates between two sectors significantly shifts to the right during the recession but returns to the pre-recession level afterward; such shift is not observed in any previous recessions after the World War II. Second, the pairwise correlations during the recession are positively correlated with the extensive degrees of interconnectedness between two sectors. Third, the ratio of trade credit relatively to sales contracted during the Great Recession. Moreover, two sectors that experienced such contraction have about 0.19 higher correlation on average than two that did not. To uncover the mechanism associated with these three facts, we develop a multi--sector model incorporating an endogenous trade credit structure. The model shows that trade credit is adjusted according to both the intermediate supplier and client's financial conditions, and such adjustment has asymmetrical effects on sectoral outputs. If only the supplier (client) is financially constrained, trade credit is decreased (increased) so as to partially offset the effects of the bank lending shocks on the outputs of the supplier (client). However, if they are both financially constrained, trade credit is adjusted in favor of the more tightened one, which imposes additional costs on the other. This adjustment propagates and amplifies a negative bank lending shock and causes sectoral outputs to fail together. Simulations imply that during a financial recession, the decline in trade credit amplifies shocks by 20\% on real GDP.

JEL Classifications: C67, E23, E32, E44, E51, F40, G30

Keywords: Sectoral Comovement, Production Network, Financial Friction, Trade Credit Chain

The Great Recession: Divide between Integrated and Less Integrated Countries

with Guillermo Hausmann-Guil and Eric van Wincoop (*IMF Economic Review, Jan 2016*)

No robust relationship has been found between the decline in growth of countries during the Great Recession and their level of trade or financial integration. Here we confirm the absence of such a monotonic relationship, but document instead a strong discontinuous relationship. Countries whose level of economic integration (trade and finance) was above a certain cutoff saw a much larger drop in growth than less integrated countries, a finding that is robust to a wide variety of controls. We argue that standard models based on transmission of exogenous shocks across countries cannot explain these facts. Instead we explain the evidence in the context of a multi-country model with business cycle panics that are endogenously coordinated across countries.

JEL Classifications: E32, F41, F44

Jobs Before College Completion and Career Building of Young Workers Through Job Switching

with Toshihiko Mukoyama (*Macroeconomic Dynamics, forthcoming*)

We analyze job switching and wage growth of young workers, separately considering the jobs experienced by workers before and after college completion. These two groups of jobs consist of very different occupational compositions. Workers with many jobs before college completion and with little or no job experiences before college completion have similar subsequent wage paths. Instruments are applied to estimate the wage equation and we find jobs before college complete cannot generate any wage premium. These facts suggest that jobs before college completion contribute less to career building compared to the ones after college completion. If we disregard all jobs before college completion, the number of jobs that are experienced by workers before age 35 are about three jobs fewer than the total number of jobs.

JEL Classifications: E24, J31, J62

Keywords: Job mobility, jobs before college completion, life cycle