Oil Price Shocks and Bank Risk around the World

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Banks play an important role in economic activities around the world. Existing literature has documented many determinants of bank risk, such as banks' specific characteristics and macro-economic variables. Moreover, firms in oil-related industries have substantial bank loans. However, no study has not explicitly examined the effect of oil price shocks on bank risk.

We examine the impact of oil price shocks on bank risk based on 2,217 banks from 39 countries during the period of 2006 to 2017. Bank risk is measured by Z_SCORE. We use the structural VAR approach to get three specific oil price shocks (i.e., oil supply shocks, aggregate demand shock, and oil specific demand shocks). Besides the direct impact of oil shocks on bank risk, we are interested in whether policy interest rate as a mediation could explain the relation between oil shocks and bank risk. Because oil price shocks have different impact on financial markets and economy in different areas and economic conditions, we further examine the impact of oil shocks on bank risk in oil-importing versus oil-exporting countries and in normal time versus bad time.

Our main results are summarized as following: first, all three oil shocks have positive impacts on bank risk, but the impacts are different. Second, interest rate spread can act as an indirect channel or mediation effect to explain the oil-bank risk relationship for oil-exporting countries. Third, the mediation effect is not significant for both oil-importing and exporting countries during the financial crisis.

Our study enriches the banking literature that exclusively concentrates on financial markets and formal institutions. Specifically, our results shed light on the nexus of oil and bank risk, providing practical implications for policy makers. It is better for monetary authorities to mainly adopt macro-prudential monetary policy to maintain financial stability and enhance the public trust of monetary authorities. Future research could, in a unified framework, dig deeper into the nexus of oil price and financial institutions within a specific country or around the world.

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