Disentangling Demand and Supply Shocks in The Global Crude Oil Market

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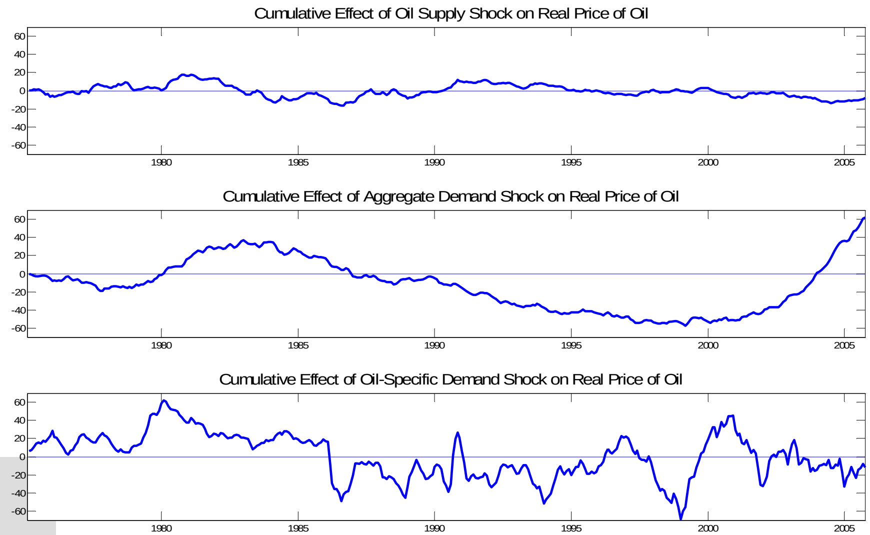

Impact:

-**Project (1)** shows that exogenous oil supply shocks driven by political events in the Middle East made remarkably little difference overall for the evolution of U.S. real GDP growth and CPI inflation since the 1970s, although they did matter for some historical episodes.

- **Project (2)** identifies three shocks that drive crude oil prices: shocks to global crude oil supply; shocks to the global demand for all industrial commodities; and a demand shock that is specific to the crude oil market. The latter shock is designed to capture shifts in the price of oil driven by higher precautionary demand associated with concerns about future oil supply shortfalls. The two demand shocks are shown to be the chief cause of most oil price shocks.

Project (3) shows that the conventional wisdom that higher oil prices necessarily cause lower U.S. stock returns applies only to oil-market specific demand shocks such as increases in the precautionary demand for crude oil that reflect fears about future oil supply shortfalls.

Objective: Understand the source of oil price fluctuations and their effects on the economy.

Underlying research questions:

(1) To what extent is the price of crude oil determined by fluctuations in the global demand for industrial commodities?

(2) How important are political events in the Middle East for the price of oil and what is the role of fears about future oil supply shortfalls?

(3) How important are shocks to the production of crude oil?

(4) How are oil price shocks transmitted to the economy?

General Approach

New data sources are developed to quantify politically driven oil supply shocks as well as fluctuations in global demand. Econometric methods are used to identify and quantify the dynamic effects associated with changes in energy prices, to identify shifts in market expectations, and to test implications of economic models of the transmission of energy price shocks.

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