Resource Booms and the Macroeconomy: The Case of U.S. Shale Oil

by: Nida Çakır Melek, Michael Plante and Mine K. Yucel

September 21, 2017

The U.S. shale oil boom had sizable effects not only on upstream and downstream energy sectors but also on GDP and trade flows. However, the crude oil export ban created large distortions in the energy sector.

We examine the implications of the U.S. shale oil boom for the U.S. economy, trade balances, and the global oil market. Using comprehensive data on different types of crude oil, and a two-country general equilibrium model with heterogenous oil and refined products, we show that the shale boom boosted U.S. real GDP by 1 percent and improved the oil trade balance as a share of GDP by more than 1 percentage points from 2010 to 2015. The boom led to a decline in oil and fuel prices, and a dramatic fall in U.S. light oil imports. In addition, we find that the crude oil export ban, which was in place during a large part of this boom, was a binding constraint, and would likely have remained a binding constraint thereafter had the policy not been removed at the end of 2015.

JEL Classification: F41, Q33, Q38, Q43

Article Citations


Related Research

Nida Çakır Melek
Senior Economist

Nida Çakır Melek is a senior economist in the Economic Research Department of the Federal Reserve Bank of Kansas City. She joined the Bank in August 2013 after receiving her Ph.D. from UCLA. She holds a B.S. degree in Mathematics from Middle East Technical University, Ankara, Turkey and an M.A. degree in Economics from Bilkent University, Ankara, Turkey. Her primary areas of research are macroeconomics, international economics, and energy economics.