Did U.S. Consumers Respond to the 2014–2015 Oil Price Shock? Evidence from the Consumer Expenditure Survey

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Executive summary

The oil price decline of 2014–2015 was both unanticipated and large in magnitude, leading to expectations of a significant impact for the U.S. economy. Since then, there continues to be debate over how much this shock affected U.S. GDP, and whether increased consumer spending due to gasoline price savings was an important channel here.

In this paper, we examine whether U.S. households who were particularly exposed to the oil price shock changed their consumption behavior after the shock, using representative micro data from the Consumer Expenditure Survey from 2013–2015. We propose a difference-in-difference identification strategy by comparing consumption responses of a treatment group of households that owned a vehicle with responses of a control group that did not own a vehicle. For robustness, we also compare a treatment group of households that are above the 20th percentile in gasoline reliance with a control group of households below the 20th percentile in gasoline reliance. Our study is the first to examine this topic using representative micro data for U.S. households that covers spending on all types of products.

Our findings suggest that households that were exposed to oil prices significantly increased their spending after the oil price shock. In terms of magnitude, we find that the marginal propensity to consume (MPC) out of gasoline price savings was greater than 1 during this period, which is larger than estimates found in several other studies that examine this episode.

Across products, we find that exposed households increased their consumption of non-essential items, including alcohol, apparel, entertainment, and food away from home. In addition, we find that these households especially increased their expenditure on transportation products (e.g. motor vehicles), which are complementary to oil. That transportation products tend to be items where expenditures are large and discrete helps to explain why we find that the MPC out of gasoline price savings was above 1.

Overall, our findings suggest that the oil price decline of 2014–2015 had very significant positive effects on U.S. consumer spending.

Keywords oil prices, oil shocks, gasoline prices, U.S. economy, consumer spending

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