

The series Working Papers on Economics is published by the Office for Economic Studies at the *Banco de la República* (Central Bank of *Colombia*). The works published are provisional, and their authors are fully responsible for the opinions expressed in them, as well as for possible mistakes. The opinions expressed herein are those of the authors and do not necessarily reflect the views of Banco de la República or its Board of Directors.

AUTHOR OR EDITOR

Franz Hamann

Jesús Bejarano

Diego Rodríguez

Autores y/o editores

[Jesús Bejarano](#)

The sudden collapse of oil prices poses a challenge to inflation targeting central banks in oil exporting economies. This paper illustrates that challenge and conducts a quantitative assessment of the impact of permanent changes in oil prices in a small and open economy, in which oil represents an important fraction of its exports. We calibrate and estimate a variety of real and monetary dynamic stochastic general equilibrium models using Colombian historical data. We find that, in these artificial economies the macroeconomic effects can be large but vary depending on the structure of the economy. The main channels through which the shock passes to the economy come from the increased country risk premium, the real exchange rate depreciation, the sectoral reallocation of resources from nontradables to tradables and the sluggish adjustment of prices. Contrary to the conventional findings in the literature of the financial accelerator mechanism for single-good closed economies, in multiple-goods small open economies the financial accelerator does not play a significant role in magnifying macroeconomic fluctuations. The sectoral reallocation from nontradable to tradables diminishes the financial amplification mechanism.

The opinions expressed here do not necessarily correspond neither to the Banco de la República nor its Board of Directors.