OIL AND DEBTS: ARE THEY SUBSTITUTES?

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Overview

There has been much recent debate about the implications of oil prices and private indebtedness in the global 2007-08 financial and economic crisis. Using nonlinear techniques, Hamilton (2009, 2011) showed the implication of oil price sudden increase and the global recession that occurs at this time. Although all previous oil price shock, characterized by a sudden steep increase of the real price of oil, major OECD countries experience a low/constant increase the real oil price from 2002 and 2007, to finally reach the level, in real terms, of end 1979. In this regard, a large literature including Hamilton (2009) and Blanchard & Gali (2007) among others, tried to answer the following question: What was the difference between the 70s' and 2000s' oil price shocks? Despite the literature, to the best of our knowledge, none of them explored the possibility that the oil shock of the 2000s' has been mitigated in the OECD countries thanks to credit facilities made available by financial industry.

Methods

In brief, methods used in the paper is made of two parts: Firstly, we use some econometrics to characterize the relation between private indebtedness through the credit growth, oil price growth and GDP growth. Secondly, we propose a New-Keynesian DSGE model, which takes the case of an oil-importing small open economy related to Blanchard & Gali (2007). The indebtedness structure is as the paper of Eggertsson & Krugman (2012), instead of a single representative household, households are of two kinds, both utility-maximizing: The first, pessimistic, holds a significant part of the wealth, and lends money to the second class of households.

Results

We show that the oil shock of the 2000s' has been mitigated in the OECD countries thanks to the expansionary monetary policy and the leverage rate made available by financial industry. The cost of the shock has therefore been postponed by an over-indebtedness whose price was paid during the 2008-crisis.

Conclusion

We show the role of oil in the global indebtedness mechanism in the 2000s'.Nevertheless, nowadays, 6 years after the financial crisis, the price of oil is still at an unsustainable level – around 100\$ per barrel, far away from the 90s', around 40\$, and meanwhile most of the OECD countries still experience debt (private or public) crisis. It seems that the main concern of the OECD countries will be to decrease their energy dependency, especially with fossil energy, and keep a sustainable level of debts. One possible way for government to face these problems would be to invest in long term structural project, namely the energy transition, in order to recover energy independency and to keep a sustainable level of debts.

References

Blanchard, Olivier J. & Galí, Jordi, (2007)."The Macroeconomic Effects of Oil Price Shocks: Why are the 2000s so different from the 1970s?," NBER Chapters, in: International Dimensions of Monetary Policy, pages 373-421, National Bureau of Economic Research, Inc.

Eggertsson, Gauti B. & Krugman, Paul, (2012). "Debt, Deleveraging, and the Liquidity Trap: A Fisher-Minsky-Koo Approach," The Quarterly Journal of Economics, Oxford University Press, vol. 127(3), pages 1469-1513. *Hamilton, James D., (2009).* "Causes and Consequences of the Oil Shock of 2007-08," Brookings Papers on Economic Activity, Economic Studies Program, The Brookings Institution, vol. 40(1 (Spring), pages 215-283. *Hamilton, James D., (2011).* "Nonlinearities And The Macroeconomic Effects Of Oil Prices," Macroeconomic Dynamics, Cambridge University Press, vol. 15(S3), pages 364-378, November.