

FISCAL DETERMINACY OF THE PRICE LEVEL: EVIDENCE FROM THE FTPL

(Abstract)

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In this paper, the relationship between public debt and the price level is studied for a sample of 46 countries using annual data over a period ranging from 1960 to 2017. Two different models are adopted. The first model is based on the FTPL valuation equation as stated by Woodford (1994, 1998) and Cochrane (2005). The second model includes additional variables based on the comprehensive theoretical framework suggested by Sims (2011).

We first use a panel VAR GMM model including the variables of the FTPL valuation equation: public debt, present value of future primary balances, and the price level. The model is estimated based on the methodology suggested by Sigmund and Ferstl (2017), along with the generalized impulse response functions. As opposed to expectations, results indicate that public debt induces a positive response of the price level only in emerging and developing economies, while a negative response is observed for advanced economies.

As the valuation equation is insufficient in understanding the dynamics of the link between public debt and the price level, we use a different panel VAR model, including the additional variables of economic growth, and short-term interest rates. Such a model reflects better the impact of the business cycle and monetary policy.

Results suggest that the link between inflation and the variables of economic growth and interest rates can help interpret our initial findings. More specifically, an increase of public debt is found to cause lower growth in all countries, but the response of prices to lower growth is negative in advanced economies (consistent with a Phillips-curve interpretation), and positive in developing countries (due to ensuing macroeconomic imbalances).

Also, a positive shock to public debt is followed by lower interest rates in the case of advanced economies (consistent with the findings of Reinhart et al (2012)), but higher interest rates in emerging and developing countries, while interest rates and the price level appear to move in the same direction for the whole sample.