

## [A Game-Theoretic Foundation for the Fiscal Theory of the Price Level](#)

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The Fiscal Theory of the Price Level ('FTPL') posits that the government's budget equation can be used to pin down the price level, making fiscal policy an important determinant of inflation.

The theory has however been criticised for giving the government an arbitrary privilege: why is it the government's budget constraint that is used to solve for the price level, and not that of Mrs Jones? This critique is essentially debating the appropriateness of the FTPL's assumption that the government's budget equation can be used as an equilibrium condition – effectively enabling the government to violate its budget out of equilibrium. Similarly, when viewing the FTPL as an equilibrium selection device, the question becomes: why is selecting this particular equilibrium "reasonable", i.e., why can the FTPL equilibrium be expected to arise (stably so)?

Unfortunately, the standard Walrasian environment, in which the canonical FTPL is formulated, is ill-equipped to address this issue – since it does not cover cases where the economy is out of equilibrium. To address this gap, our paper studies a game between many small players (households) and one large player (the government). By taking the game-theoretic route, off-equilibrium actions do obtain a clear meaning.

The paper shows that if one is willing to assume that (i) the government is a large player with market power and (ii) it has satiable preferences (meaning it has a bliss point of desired spending, rather than wishing to consume 100% of GDP), the FTPL equilibrium can be placed on the same firm theoretical footing as Walrasian equilibria.

In particular, the paper shows that under these assumptions (which we think of as realistic) the FTPL equilibrium coincides with the Core (meaning that the equilibrium is stable in a game-theoretic sense, as no group of players can break away and do better on their own), whilst also being the unique outcome where all players are rewarded in line with their marginal contribution to the economy (i.e., they all receive their Shapley Value, with this concept satisfying intuitive notions of fairness).

The price level adjustment envisioned by the FTPL thus emerges endogenously as the sole stable outcome when agents are compensated according to their marginal contributions, rather than it being imposed as an assumption.

This provides a formal foundation for selecting the FTPL equilibrium (in which the government's budget equation is used as an equilibrium condition), demonstrating the feasibility of non-Ricardian fiscal policies central to the FTPL.