

## **Deficits and the Roots of Inflation: The Fiscal Theory Gains a Book**

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A new old theory, and objections to the old new theories.

This is what John Cochrane brings to the table in his new book *The Fiscal Theory of the Price Level*, set to be published next Fall, and already available online. The work of the researcher at Stanford University's Hoover Institution and former University of Chicago professor develops ideas of monetary economics born three decades ago, but that still lacked the unity of a book, and promises to shed new light on the inflation debate. (Disclosure: John was one of my advisers at Stanford.)

What is the fiscal theory of the price level? The central pillar of the fiscal is that the value of money comes from the fact that the government accepts it as payment for taxes, as if it said: "Here's a piece of paper, you better have some to pay me your taxes." So, we work and sell valuable goods to obtain those pieces of paper. If the government cannot remove it from circulation with taxes – more precisely with surpluses of taxes over spending - then money become worthless.

In practice, since public debt redeems for money, the price level reflects the size of public debt relative to the expected value of future primary surpluses. The parallel with corporate equity is instructive. Perception of lower surpluses leads to inflation by the exact same mechanism that perception of lower dividends would, if we used Apple stock as money. To determine the price level, we don't need "frictions", a facilitating role for money or price stickiness.

By setting interest rates, monetary policy has a central role in the fiscal theory. An excellent chapter discussing long-term debt shows how it can determine inflation's "timing". The book also underscores the importance of fiscal-monetary interactions. For example, a monetary tightening can only lower inflation if it has fiscal support, as it increases the public spending with interest. Cochrane also dedicates entire chapters to the study of recent episodes. For instance, why the fiscal expansion after COVID led to inflation, but the long period of zero interest and quantitative easing on advanced economies did not.

The equations that translate the theory are relatively simple and transparent. The better part of the exposition is verbal. The wide range of ideas, sometimes speculative, but always described on the detail, demands pauses on the reading for reflection. Still, humor in the right amount and the accessible writing that characterizes John Cochrane smooth the experience, and the stream of thought seldom feels repetitive.

Is the fiscal theory new? The book's epigraph proves that no. The quote from Adam Smith's

*Wealth of Nations* observes that the liberatory power of money towards taxes gives it value. But a great distance separates a principle from 600 pages of careful quantitative analysis of its implications. Besides Cochrane, the list of economists that helped to develop the fiscal theory more recently includes big names of the area, like Eric Leeper, Tom Sargent, Christopher Sims, and Michael Woodford. The book fills out this long intellectual history.

Is the fiscal theory different? Modern versions of Monetarism and New-Keynesianism dominate monetary economics since the rational expectations revolution of the early 80s. Both offer sound fiscal foundations, similar to the fiscal theory, but often leave them on the background. An important chapter of the book argues that time series alone cannot differentiate the three doctrines, since their equations are the same in equilibrium.<sup>1</sup> Out of equilibrium, they differentiate themselves, but we do not observe non-equilibria.

So the book sends us to look at the mechanisms of equilibrium formation of each theory, how reasonable they are, and their consonance with existing institutions and human behavior. For example, monetarism relies on a clear distinction between “money” and “bonds” and limited supply of money. But financial innovations are constantly expanding payment methods and central banks no longer pay attention to money supply. New-Keynesian models depend on central banks actively adjusting the interest rate for inflation not to fluctuate. But from 2008 to COVID, interest rates were immobilized by the zero lower bound, and inflation was as much or less volatile.

The list goes on, with each unpleasant feature of these models leading to an extensive discussion in the book of how they constitute anomalies that economists can only ignore for so long. In that sense, the theory exposed by Cochrane, in giving a new role to fiscal fundamentals, constitutes a new and coherent way to understand inflation.

Is the fiscal theory a good theory for Brazil? From hyperinflation experience, we Brazilians know well how public debt and inflation intertwine. The book clarifies how a larger interest rate can lead to higher inflation, not lower, by raising debt costs. Economist Eduardo Loyo describes with precision the mechanism in a 1999 article. More recent inflation episodes can all be explained by the fiscal theory too, although that discussion I must leave to another day.

Why should you read *The Fiscal Theory of the Price Level*? Because it is hard to imagine the many changes the book advocates not happening eventually. Problems with modern monetary models and their many and often precarious patches become more evident by the day. And because the fiscal theory of the price level, precisely outlined by John Cochrane, overcomes these problems in a coherent and technically rigorous way.

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<sup>1</sup>For example, when observing a price level  $P$ , we can understand it as a result of  $MV=PY$  and a government that adjusts surpluses to validate  $P$  (a monetarist view), or as a result of the valuation equation of public debt while the central bank provides liquidity  $M$  to satisfy market demand (fiscal theory).