

JEL Book Review: The Fiscal Theory of the Price Level by John H. Cochrane

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What or who truly causes inflation? The worker will answer that firms increased the price of goods, which led her to demand higher wages. Firms will answer that workers demanded higher wages, which led to an increase in prices. Surely, there must be more to this. Let's delve deeper, asking more workers and firms in different sectors and locations. There must be a culprit. If not yet found, let's add trade unions, business associations, foreign firms, banks, and governments to our list of suspects. We will run into a circular argument no matter how many suspects we check. A dog chasing its tail may be the fate of anyone researching this question. This question cannot be tackled with interviews alone; even the best investigative journalists or police detectives would fail.

Where journalists would fail, so too would simple Economics 101 reasoning based on supply and demand. Aggregate price movements arise from intricate interactions and networks of multiple economic actors. Establishing causality is not straightforward. That is where this book by John Cochrane comes in, using economic models to shed light on the vexing and complex question of what determines price movements.

The reader may by now expect this is a modeling book. Not quite. Models are abstractions, and the author does not forget the fundamental principle that models must pass the most challenging test of all: do they fit reality? The book does this tremendously well. It is as much a book of models as it is a book of data, economic history, and parables. What happened in the Great Depression, the world wars and their aftermath, Bretton Woods, and the recent COVID pandemic? There is something for everyone.

This excellent book defies the paradigm of modern economics, in which "proper" central banks are believed to determine the price level (hence inflation), while fiscal authorities ensure the intertemporal government budget constraint is satisfied. Instead, the book claims that fiscal considerations inherently determine inflation. The government may do little to bring the present discounted value of surpluses in line with outstanding nominal debt. The price level must adjust for this basic accounting equation to hold. In short, the fiscal theory of the price level says that inflation is a fiscal phenomenon; that is, inflation is driven by the taxation and spending needs of the government.

The fiscal theory of the price level, I suspect, will get much more sympathy today than four years ago. The inflation rates observed in the aftermath of the COVID era were, to most economists, completely unthinkable. We can all, with hindsight, say we saw it coming. But the reigning paradigm was that inflation in the 1970s was a product of a poor understanding of monetary policy at the time—nominal interest rates were not responding more than one-to-one to inflation. Once economists and central bankers understood that truth, the beast of inflation was thought to be tamed forever. But the aftermath of the COVID era changed everything. The beast came back roaring. The United States and most economies faced massive inflation after 2021, and central banks could have increased interest rates if they wanted to. The fiscal theory of the price level looks appealing in this context. Governments were in no position or willing to adjust surpluses further. Hence, central banks needed to let inflation devalue government liabilities.

One may think that is it, both in terms of where economic thinking converged to today and what the essence of the book is about. To summarize it differently, let's go back to Leeper (1991) and give more credence to the case of active fiscal policy; to be fair and empirically plausible, we can consider regime switching between active/passive fiscal and monetary policy. While such reading is not incorrect, this book does a lot more and, at the same time, enshrines Leeper (1991) and many others, such as Sargent and Wallace (1981).

Firstly, the book does not want to settle on a compromise between the New Keynesian (NK) synthesis and the fiscal theory of the price level. The book goes into several historical episodes in which the reader would think the fiscal theory of the price level has no chance. Yet, the author provides ingenious and remarkable insights into the model and reinterprets history. The book pushes its theory and ability to explain reality to the limit. This strategy persuades the reader or, at the very least, shows that the fiscal theory is astoundingly resilient and not easily disproved. Does Japan, with high debt and low inflation, disprove the fiscal theory? No. Helicopters dropping money would raise prices. Hence, isn't the fiscal theory wrong? You may be in for a surprise.

Secondly, the book argues that the standard approach to equilibrium determinacy in NK models is incorrect.¹ Again, this is no book to compromise in the middle; instead, it aims to make fiscal theory the centerpiece. The argument is subtle but essential; it concerns off-equilibrium behavior and whether transversality conditions are plausible in nominal or real terms. At the core of the usual equilibrium selection in NK models is the threat that central banks would let inflation explode unless current inflation is set at a particular level. This is unrealistic. The argument is more subtle and complex. It is not an argument that can be done justice to in a concise manner. Chapters 16 and 17 are especially rewarding. It certainly will make the reader return to the beginning of rational expectations models and note essential details in equilibrium determination. These will no longer be details; they will become assumptions and choices with significant consequences. Not everything we learned is wrong; the book pulls you out of the hole and shows new, yet familiar, paths to amend the models.

The enterprise of the book is not easy. It's about causality, and that's tough. Game theory considerations add a layer of complexity but cannot be ignored; there are central banks and fiscal authorities. To complicate matters further, consider unobservable off-equilibrium behavior as agents have rational expectations. And by now, you are guessing it: an observational equivalence theorem makes it hard to prove and disprove the theory. The book masters all these issues with elegance. As the book concludes, it is only the beginning. Among other aspects, movements in discount rates are needed to make the model match the facts. We need those both here and in macrofinance, and we understand how little we know.

Who should read this book? There are plenty of historical accounts and descriptions. So, it is for everyone. There are plenty of math, determinacy, and transversality conditions that macroeconomists will appreciate, and hopefully others too. Certainly, this book is a must-read for those who downplay fiscal and monetary interactions. It is even more so for those who think that determinacy conditions in the NK synthesis are set in stone. Any

economist should read this book with an open mind. Sometimes, we need to be aware that to go further, we must return to the beginning.

REFERENCES

Leeper, Eric M. 1991. "Equilibria under Active and Passive Monetary and Fiscal Policies." *Journal of Monetary Economics* 27 (1): 129–47.

Sargent, Thomas J., and Neil Wallace. 1981. "Some Unpleasant Monetarist Arithmetic." *Federal Reserve Bank of Minneapolis Quarterly Review* 5 (3): 1–17.