

Is money endogenous or exogenous?

The distinction between exogenous and endogenous isn't always sharp. Most things we do are shaped by circumstance and to a degree predictable (endogenous), yet we retain scope for discretion (exogenous). In this case, however, some people argue the money supply is entirely out of the hands of the central bank - endogenous in an absolute sense.

What to treat as exogenous or endogenous is to a large extent a modeling decision: if you want to think about the consequences of choosing different X , make X exogenous. If you endogenize everything you are left with a model that is fully determined by its parameters and initial conditions, which is not always terribly helpful [1] [2] [3].

We all know that if the central bank targets an interest rates, it lets the money supply move around as required to hit that target. Econ 101 student should know this [4]. We also all know that when central banks tried to target the money supply, they were unable to do so. I don't think that current economic theory relies on the idea central banks can choose the money supply. I don't think this means central banks have no influence of the money supply [5]. I think central bank took it into its head to contract or grow the money supply, it could exert pressure in the desired direction, most obviously by moving its target rate. If you want to think about what would happen should the central exert pressure in either direction, it makes sense to model an exogenous money supply. Is money endogenous? Looks to me like it is, given the choices of the central bank, which also means it ain't.

Whatever view you take on these questions, I don't see how it validates Steve Keen's theories either way. As far as I know, most economists agree that a growing money supply is usually associated with growing nominal demand, and that credit expansion increases the money supply [6]. I think that's true whether you regard this expansion as endogenous or exogenous. If you want to know what happens to real output you have to think about prices, supply-side considerations. I think the existence of a banking system, through whose actions the money supply can increase, certainly helps explain how demand can grow without people somehow having to engineer an increase in money velocity or rely on the cooperation of the central bank [7]. If you want to model what causes demand to grow, the supply of credit and money is only part of the picture.

If you happen to read this and want to comment email me at luisenriqueuk at gmail and I'll add your comment, if I think it's constructive.

[1] This reminds me of a quote from a political economist, I am annoyed to have mislaid, along the lines that models only get you halfway, and when you get right down to it the political economy of countries cannot be explained without allowing for politicians making choices that models say they won't.

[2] First year economics tends to leave fiscal policy as exogenous and endogenizes everything else, which I think leaves students, temporarily I hope, with a rather unbalanced view of what

determined output.

[3] I've long wondered about the possibility of creating a modeling framework in which everything is endogenized, but where every agent retains scope to deviate from the endogenous decision, so we can study what happens when agents pull in different directions.

[4] I hope a version of this is said in every IS/LM-teaching econ 101 classroom: "You are about to learn a model in which the central bank chooses the money supply and the interest rate adjusts. This isn't what happens in reality. In reality the central bank targets an interest rate and lets the money supply adjust. So keep that in mind. Next year in intermediate macroeconomics you will meet a monetary policy function. If you ask me, macroeconomics is taught like this mainly because of tradition, but also because the IS/LM model is a useful and gentle introduction to important ideas. Some economists think it's more useful than what you will learn next year." I was told this, and I say it.

[5] Nick Rowe has written about the distinction between short-run and long-run endogeneity of money, I can't immediately find the right link. I don't know whether this means the "loanable funds" view of the world is reasonable in the long-run. My guess is that all manner of things determine interest rates but something akin to a curve supply is in there somewhere.

[6] [Here](#) is a summary of a paper on credit growth. You can find quotes from Milton F saying money supply growth usually means output growth (output first prices later, he says).

[7] if you think about $MV = PY$, Y cannot increase, for given P , without either M or V increasing, and credit expansion is just one way of increasing M .