

COMMENTARY

One important way that monetary policy can influence aggregate demand is by changing consumer spending. This could occur through a variety of possible channels. Changes in Federal Reserve policy could alter real interest rates, credit availability, expected future earnings, or the value of financial securities such as stocks and bonds, each of which could in turn alter current consumer spending. In their paper, Sydney Ludvigson, Charles Steindel, and Martin Lettau examine empirically the last of these channels. That is, they examine the narrow but important issue of to what extent monetary policy affects consumer spending by altering the aggregate value of wealth.

Their methodology is to estimate a small structural vector autoregression (VAR) that includes consumption (of nondurables and services), labor income, wealth, the federal funds rate, the inflation rate, and, in some specifications, the commodity price index. They calculate two impulse response functions. The first (A) measures the response of consumption to a monetary surprise (a shock to the federal funds rate). The second (B) is calculated in the same way as A, except that the consumption-wealth channel is shut down by setting the coefficients of the contemporaneous and lagged response of consumption to wealth equal to zero. The difference between A and B is interpreted as “a measure of the contribution of the consumption-wealth channel in the transmission of monetary policy.” The authors thereby provide a quantitative answer to the question, if consumption did not respond to changes in

wealth, how much smaller would the effects of monetary policy shocks on consumption be?

Their main results are as follows. There is a significant response of consumption to a shock in the federal funds rate (A), but the difference (A-B) is economically small and statistically insignificant. The authors conclude that the contribution of the consumption-wealth channel to the overall transmission mechanism is small.

In what follows, I will first comment on the paper itself, then discuss implications for the broader question of whether the wealth effect is important (independent of monetary policy), and then suggest some avenues for future research.

COMMENTS ON THE LUDVIGSON-STEINDEL-LETTAU TEST

This paper represents an important contribution to two literatures: the transmission mechanism for monetary policy, and the wealth effect on consumption. The paper is based on a clever idea, it is well implemented and clearly written, and it should be cited in the future by others in these literatures.

I have a few comments and questions about their approach. First, do we believe the identifying assumptions? A key identifying assumption is that changes in the stock market do not cause a contemporaneous change in the federal funds rate,

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once other variables are accounted for. This assumption is at best controversial—a number of researchers have argued that Federal Reserve policy does and/or should respond to changes in the value of the stock market, particularly large changes. For example, following the October 1987 stock market crash, the Fed cut the federal funds rate without waiting for signs of economic weakening, perhaps to avoid the possibility of a financial crisis. Moreover, stock prices might contain useful information about future inflation or real activity above and beyond the information captured by variables in the VAR. It is somewhat troubling that identification rests on this assumption.

Second, is the counterfactual being proposed a meaningful one, that is, is it feasible that consumers would not respond to changes in financial wealth, but would respond to changes in interest rates or changes in current or expected future labor income? In particular, consider a standard discounted cash flow model of stock prices. A change in the federal funds rate could influence stock prices either because it influenced interest rates and therefore the rate at which stock prices are discounted (that is, the denominator in the discounted cash flow equation), or because it influenced expected future corporate earnings (that is, the numerator in the discounted cash flow equation). It is somewhat perplexing that the authors' counterfactual allows for some effects of interest rate changes and expected future income changes, but not for others.

Third, should the paper be examining the total change in wealth, or only the part of the changes in wealth due to capital gains or losses? The authors examine the former, but I suspect it should be the latter. Consider an unexpected increase in the federal funds rate. The price of assets will fall, leading to an immediate drop in wealth. However, if this leads to a drop in consumption, and thus a rise in saving, the added accumulation will cause wealth to be higher in the future. Examining total wealth, rather than the capital gain or loss component of wealth, includes both of these effects and could therefore potentially bias the estimates.

Fourth, this paper follows the standard approach in the literature by examining the effects of deviations from the monetary policy rule, that is, the effects of policy “mistakes.” Is this the appropriate variation in policy to examine? It is not obvious that it is. An important (but difficult) alternative would be to examine the effects of the Fed's systematic response (through the policy rule) to exogenous shocks to the economy. Barring this, it would be useful to learn more about what caused these “mistakes”—they may well be due to information flowing to the Federal Reserve that is not captured by the VAR, rather than to purely random noise in policy.

THE BROADER QUESTION OF THE WEALTH EFFECT

In addition to helping us understand the transmission mechanism for monetary policy, this paper has the potential to shed light on the broader question of the importance of the wealth effect, that is, how much do changes in stock market wealth affect consumption? There is a large literature on this question, using both microeconomic and macroeconomic data, but the results have been mixed. One reason that it is not easy to identify the size of wealth effects is that stock prices are endogenous. It is difficult to find exogenous shocks that move the stock market but do not have a direct effect on consumption. It is also difficult to separate out the reverse causality from consumption to stock prices. One promising approach has been to use micro data to examine the difference between the consumption response of stockholders and nonstockholders (see, for example, Dynan and Maki [2001]). Only half of U.S. households own any stock, directly or indirectly (Ameriks and Zeldes 2001), and even among this group, stock market wealth is highly concentrated, implying that any wealth effect must occur through a relatively small set of households.

The approach by Ludvigson, Steindel, and Lettau could in principle help solve the identification problem inherent in macro data and therefore help get clean estimates of the wealth effects. Their approach is similar (but not identical) to regressing the change in consumption on the change in wealth, and using the innovation in the federal funds rate as an instrument. There are two well-known requirements of a good instrument: it must be correlated with the independent variables and uncorrelated with the error term. Since the federal funds rate is assumed to not respond contemporaneously to shocks to wealth, and consumption is assumed to not respond contemporaneously to changes in the federal funds rate, the second requirement is (by assumption) satisfied. Unfortunately, the authors find that wealth does not respond very much to federal funds rate shocks, and that those changes that do occur tend to be temporary. Because the federal funds rate shock is not highly correlated with wealth, it is therefore not a very good instrument. Put another way, the reason the channel examined in the paper that leads from the federal funds rate to wealth to consumption is weak is because the first link is weak. Therefore, the paper unfortunately can shed little light on the importance of the second link.

FUTURE RESEARCH

I have a few suggestions for future research by the authors or others. First, we need to think harder about the plausibility of the identifying assumption that changes in stock prices do not directly influence monetary policy. Second, it would be helpful to write down an economic model that could explain the finding in the paper that a positive federal funds rate shock has only temporary effects on the stock market, causing wealth to fall and then rise back to the starting point within two years. Using daily data to look at the effects of federal funds rate

changes and also economic news announcements on stock prices might help improve our understanding of this issue. In regard to the broader question of the wealth effect, more work is needed on the theory of household portfolio and consumption choices with transaction costs and inertia. Further empirical work examining consumer spending by households with different asset positions may help sort out the magnitude of the wealth effect, and help predict how a continued rise in the fraction of households owning stock would alter the magnitude of the wealth effect.

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