

Comment

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Kevin Hassett and Glenn Hubbard provide an excellent review of the empirical research on the effects of changes in the user cost of capital on investment decisions. The long-term perspective of the review—starting with the original empirical studies using macroeconomic data and ending with the more recent panel data studies—reveals an enormous amount of progress and, even more intriguing, an emerging consensus that the user cost has a large and statistically significant impact on business fixed investment.

Until recently there has been considerable skepticism about the significance of the user cost of capital for investment behavior. The neoclassical investment model, originally formulated by Hall and Jorgenson (1967), implicitly tied the user costs variable together with the accelerator variable: user costs and output entered multiplicatively. Hence, critics of the neoclassical model attributed the evidence reported in favor of strong user costs impacts to the well-known accelerator effects observed over the business cycle. When one separated out the accelerator and user costs variables, most of the variation appeared to be explained by the accelerator. The effects of changes in user costs were much smaller and frequently insignificant. Changes in output and investment are highly correlated over the business cycle (see figure 8.1).

This view that user costs effects were small carried over to the macroeconomic literature on the impact of monetary policy on investment. If changes in the user costs had a small impact, then changes in interest rates—a component of the user costs variables—would also have a small impact. The implication that interest rates have a small effect on investment gave credence to the view that the monetary transmission mechanism—the process through which monetary policy affects real GDP and inflation—could not work through interest rates. The interest rate elasticities were viewed as too small and insignificant to matter for the monetary

transmission mechanism. This perceived problem with the "interest rate view" of the monetary transmission mechanism gave impetus to the alternative "credit view."

In my own empirical work on the effects of interest rates on investment—also using macroeconomic investment aggregates—the finding of significant interest rate effects has been more common than in the other macroeconomic literature Hassett and Hubbard cite (see Taylor 1993). In all of the Group of 7 countries and for most categories of investment, I found significant effects of changes in real interest rates on investment. One reason may be the greater use of rational expectations estimation methods, which may give better estimates of real interest rates. Another reason may be that interest rate effects are examined separately rather than as part of a user cost variable.

In any case, Hassett and Hubbard are correct to emphasize that more recent research has moved away from macroeconomic aggregates and toward individual firm data on investment. Recent panel data studies show user cost elasticities about ten times larger than the previous macroeconomic estimates. The results are robust to various specifications and sample periods.

Although I have no disagreement with this survey of the evidence that Hassett and Hubbard present, I believe that they could do more to illustrate why the panel data yield these large effects while the macro-time series data in figure 8.1 seem to be so dominated by the accelerator effects. Some analogous charts showing the effects of large one-time changes in the cost of capital on individual firms would provide some useful illustrations. For example, consider the repeal of the investment tax credit in 1986. This repeal was effective on January 1, 1986, but was anticipated by the end of 1985. Not surprisingly, aggregate investment soared by 20 percent in the fourth quarter of 1985 and then declined by 20 percent in the first quarter of 1986. This change in the user cost of capital brought on by the change in the investment tax credit thus had huge and statistically significant effects on aggregate investment. This was clearly an episode where the user cost was not correlated or tied in with the accelerator, and the direct effects were huge. Examining how some of the individual firms that make up the aggregate responded would add to our sense of what is going on in the panel.

In addition to this suggestion I have some small disagreements. First, Hassett and Hubbard's demonstration of the favorable welfare effects of a reduction in the inflation rate, an increase in the investment tax credit (ITC), or a switch to a consumption tax seems to be entirely dependent

on a "dynamic efficiency" argument showing that the capital stock in the United States is not so high that lowering it would lead to an unambiguous gain. Unfortunately, this approach does not result in quantitative estimates of the size of the effects. Other studies using more complete dynamic general equilibrium models, such as those of Kotlikoff and Auerbach, have given explicit numerical estimates and do not rely on an either-or dynamic efficiency argument.

Second, I was disappointed not to see greater discussion of the pros and cons of the ITC as a countercyclical device. Short-run and long-run issues are important in practice. Recall that the ITC was originally proposed in the 1960s for short-run countercyclical reasons. And both President Bush and President Clinton proposed temporary ITC changes as a means to stimulate the economy after the last recession. Thus the ITC seems to be alive and well as a discretionary countercyclical instrument.

The ITC should not be used in this discretionary way; the uncertainty and the lags are too great. Although there are instances where an ITC could be operated as a systematic policy rule (see Taylor 1982), in reality the policy would most often be used in a discretionary fashion.

References

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