

John C. Driscoll

COMMENTARY

Cara Lown and Donald Morgan’s paper does two very important things. First, it draws attention to a data set that may shed new light on the effects of monetary policy, the financing choices of firms, and the industrial organization of the banking sector: the Federal Reserve’s Senior Loan Officer Opinion Survey. Second, it reminds us that the bank lending market is more complex than common stories of the lending channel suggest—and that studying those complexities may help solve important macroeconomic questions. These comments fall under five headings: explaining why credit standards are important, discussing whether the variables chosen actually reflect differences in standards, describing how well the argument addresses endogeneity problems, interpreting the results, and suggesting future research.

WHY ARE STANDARDS IMPORTANT?

As Lown and Morgan remind us, obtaining a bank loan has two stages. First, banks decide whether to make loans at all, based on a set of standards the potential borrower must meet. Second, the bank and borrower must negotiate loan terms and quantity.

Traditional stories of the credit channel of monetary policy (for example, Bernanke and Blinder [1988]) have largely

neglected the first stage. For most empirical studies, and even most of the (rather few) theoretical models, this is not problematic. Studies have seldom used loan interest rates; they instead attempt to determine whether exogenous shifts in monetary policy or bank-related variables cause changes in the quantity of bank loans or changes in macro-level variables and micro-level firm behavior. This focus on loan quantities leads to results equally consistent with a credit-rationing or a price-increase story. In fact, a typical description of what happens during a credit crunch is that small firms are “unable to borrow” after a monetary policy contraction.

So why consider standards? Increases in standards are likely to reduce the quantity of bank lending—if firms are unwilling or unable to meet new standards. Hence, to the extent that changes in standards are exogenous, standards will be good instrumental variables for shifts in the loan supply.

There are at least four reasons why standards might change:

- Banks decide to change standards for reasons unrelated to the current or future state of the macroeconomy.
- Open market operations lead to changes.
- Banks tighten or ease lending as a result of moral suasion by the Fed.
- Banks change standards in response to perceived changes in loan demand.

The first reason might involve regulatory changes or changes in the industrial organization of the banking industry

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that are unrelated to the economy as a whole. The next two reasons provide additional channels through which monetary policy can have real effects. Moral suasion is of particular interest as the return of an old idea that is now largely abandoned. I was once taught that there were four ways of carrying out monetary policy: performing open market operations, changing the discount rate, changing reserve requirements (or perhaps other banking regulations), or exerting “moral suasion.” Moral suasion includes attempts by the Fed to persuade banks to change their lending policies. Consider Friedman and Schwartz’s (1963) discussion of monetary policy in 1919:

In April 1919, the Board gave serious consideration to the suggestion “. . . that the discount rate be advanced.” Yet it restricted itself to moral suasion, urging banks to discriminate between “essential and non-essential credits”—a formula that successive use from that time has rendered neither less appealing to the Reserve System as a means of shifting responsibility nor more effective as a means of controlling monetary expansion (p. 222).

In discussing postwar policy, Friedman and Schwartz later characterize moral suasion as the Federal Reserve’s “traditional confession of impotence” (p. 580), a frequently used but also usually ineffective policy instrument. Finding that this policy instrument was more powerful than Friedman and Schwartz thought would have two important implications: standard estimates of the reaction function would give an incomplete accounting of Fed policy, and exploring moral suasion would also provide another way of determining the effects of monetary policy.

The fourth reason why standards might change—in response to perceived changes in demand—complicates efforts to discover the effects of the first three reasons. If banks perceive declining demand, they may choose to reduce the quantity of loans, in part by raising standards. In addition, in response to a recession, the pool of potential borrowers may possibly decline in quality—again leading lenders to raise borrowing standards.

Efforts to determine the effects of changes in standards are hence plagued by the usual identification problems associated with attempts to determine the effects of changes in monetary policy. The results of Lown and Morgan’s paper depend on how well this identification problem is handled. Ultimately, I find the authors’ way of addressing the problem suggestive but not fully persuasive.

ARE CHANGES IN STANDARDS MEASURED ACCURATELY?

The paper’s measure of credit standards is the net degree of tightening reported by senior loan officers for a sample of banks. As the authors note, this is a qualitative measure. By itself, that is not any more problematic than using the indexes of monetary policy developed by Romer and Romer (1989) or Boschen and Mills (1991). More troubling, however, is the potential for bias. Loan officers may have an incentive to tell the Fed what they think it wants to hear. As the authors note in a previous paper using this data set, this is particularly evident in the first part of the sample, in which there is no net easing. But even over the whole sample, there is a net tendency toward tightening. This might not matter if the bias were known to be constant. But it would matter if the bias were to be in the direction of actual or expected monetary policy. While it is difficult to assess whether this is true, I have been told by the current operators of the survey that the banks are reassured that there is a firewall between the research and regulatory branches of the Fed, a safeguard that would encourage honest reporting of responses.

HOW WELL IS THE ENDOGENEITY PROBLEM ADDRESSED?

To the extent that credit standards simply respond endogenously to current and expected future changes in GDP, they cannot be considered to have real effects. Lown and Morgan are aware of this identification problem and attempt to control for it in two ways.

First, they include their standards measure in a vector autoregression model (VAR), in which identification is achieved using Sims’ (1980) method of ordering the variables so that the ones suspected to be most exogenous are first. The initial ordering has a group of real variables first, lending quantities and rates second, standards third, and the federal funds rate last. The second ordering moves the federal funds rate to a position between the lending quantity and lending rate.

These orderings are good first steps, but it is not clear that they truly capture exogenous components in the variables of interest, and they do not seem to allow tests of the hypotheses of interest. For example, the first, and apparently preferred,

ordering rules out the possibility that monetary policy can contemporaneously cause standards to change a priori. In both orderings, innovations in standards are allowed to be affected by innovations in all other variables contemporaneously; it does not sound as if the resulting orthogonalized innovations are truly exogenous. Other authors have, of course, previously done something similar to identify the exogenous component of the federal funds rate. But in those cases, the argument was supplemented by a consideration of institutional details of the federal funds market that showed that shifts in the demand for federal funds were accommodated. This paper needs a similar institutional argument. Moreover, this paper is open to some of the same criticisms about using VARs to identify policy shocks that have been leveled by Rudebusch (1998) and Faust (1998) and recently summarized in Stock and Watson (2001).

Second, Lown and Morgan compare their standards series with Romer and Romer's (1989, 1993) dates for disinflations and for "credit actions" (that is, attempts by policymakers to use moral suasion or other means to directly affect lending). All seven dates identified by Romer and Romer correspond to large changes in the standards variable, a result that raises my confidence that the variables are capturing at least the exogenous changes. But this still leaves open what the other changes in standards correspond to. They could be exogenous policy changes or noise. They could also be endogenous policy responses. The problem is akin to comparing just the Romer and Romer disinflation dates to the federal funds rate; how we interpret changes in the federal funds rate at other dates is debatable.

HOW DO WE INTERPRET THE RESULTS?

As in most VAR-based studies, it is difficult to determine the magnitude of the results. Since the VARs are in levels and no attempts at detrending have been made, it is also difficult to compare the results with other results in the literature. Thus, it is hard to determine whether the fact that a 100-basis-point shock to the federal funds rate causes a drop of less than 1 percent in the level of output should be regarded as small or large.

As the authors note, the inclusion of the standards variable in the preferred ordering does cause the effects of the federal funds rate on output to drop, but the drop is not statistically significant or clearly economically significant. The results are

more striking in the variance decompositions, although it is not clear why the ordering has been changed from that reported in the VARs or why the variance share of innovations in the federal funds rate is so much larger than I have seen in other papers. The price puzzle seemingly remains, and, oddly, the effects of innovations in lending rates on the quantity of lending are negligible.

More interestingly, standards have an almost immediate and large effect on output, regardless of the ordering. The effect is very long-lived, and it is not clear whether it eventually returns to zero. This does not look like the effect of a standard monetary policy shock (although the effects of the federal funds rate in this paper are rather similar). It makes me suspicious that what is in fact being picked up is an endogenous response of standards to changes in loan demand. But if the effect is genuine, there are interesting implications. First, to the extent that the Fed through its "credit actions" is causing some of this, we need to rethink our beliefs about the effects of monetary policy. Second, given the size and speed of impact, perhaps the Fed should be using credit actions more often and avoiding the slower working channels. Persuasion, threat, and intimidation should be the three instruments of monetary policy, not open market operations, discount rate changes, and reserve requirement changes.

SUGGESTIONS FOR FUTURE RESEARCH

There are several alternative ways of controlling for endogeneity. First, one could try to base identification assumptions on a simple small model of the bank lending market, in the same way that Brunner (1994), Strongin (1995), and Bernanke and Mihov (1998) model the federal funds market. This approach would replace the Sims (1980) style of recursive ordering assumption with assumptions like those in Bernanke (1986) and Blanchard and Watson (1986). This is not a trivial task.

Second, it may be possible to use other questions in the survey to control for endogeneity, although data availability may make this difficult in practice. In the current version of the survey, the question immediately after the question on standards asks why standards have changed. Possible responses include "less favorable or more uncertain economic outlook," "worsening of industry-specific problems," and "reduced tolerance for risk." The first response in particular seems well

suiting for addressing the endogeneity problem. The next question after this one asks directly whether loan demand is substantially stronger or weaker.

A set of questions added to the survey in the past few years asks about the responses of borrowers after standards have tightened. In the most recent survey, two-thirds of customers borrowed the same amount as planned, 18 percent borrowed somewhat less, 6 percent significantly less, and 10 percent not at all. Of the one-third who borrowed less, half either borrowed elsewhere or sold illiquid assets. These results suggest that most firms are able to find other forms of finance, which is evidence against both the effects of standards and the lending channel more generally. It would be interesting to revisit this question once a longer time series has been accumulated.

Determining whether there are differences in the behavior of small and large banks and between loans at prime and loans over prime would be helpful as well. Various papers on the lending channel (for example, Kashyap and Stein [2000]) have predicted that smaller banks should be more affected by changes in monetary policy, and almost all papers in this area have argued that smaller firms, many of which are likely to borrow at rates substantially over prime, are more subject to the lending channel.

Finally, Peek, Rosengren, and Tootell (1999, 2000) have recently discovered another banking variable that has significant predictive power for output and that may be an instrument for exploring changes in the loan supply: the fraction of banks in poor financial health. It would be interesting to see how much additional explanatory power the standards variable has over the bank health variable.

CONCLUSION

As my comments indicate, I am not persuaded that the endogeneity problem has been solved for the standards variable. But standards do clearly have predictive power for output, and the results are worthy of further study with additional controls for endogeneity. The idea that moral suasion might have been—or may even still be—an important part of monetary policy deserves additional research. Finally, the entire Senior Loan Officer Opinion Survey is a rich and underutilized resource, and Lown and Morgan deserve credit for bringing it to light.

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