

BEHAVIORAL ECONOMICS AND FED POLICYMAKING

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For every bias identified for individuals, there is an accompanying bias in the public sphere.

—Cass Sunstein (2014:102)

Behavioral economics has continued to gain momentum in challenging the standard rational actor model in economics. With a few exceptions, the emphasis has been on the cognitive failure of individuals outside of government. Niclas Berggren (2013: 200) estimates that 95.5 percent of behavioral economics articles in the leading economics journals do not contain an analysis of the cognitive ability of policymakers. In this article, I offer a preliminary analysis of potential cognitive failures in the Federal Reserve’s conduct of monetary policy. Proposals to “debias” monetary policymaking are offered, along with a discussion of how the Fed’s existing institutional structure ameliorates or exasperates potential biases.

Behavioral Economics in Monetary Policy

Initial attempts to incorporate behavioral economics into monetary policy focused on how policymakers might better account for the behavioral biases of market participants, especially in the area of

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price and wage setting (Rotemberg 2008: 34–36). Behavioral economics has been used to provide a new rationale for reliance on a Phillips curve framework, as well as to place greater weight on unemployment. As Janet Yellen (2007: 15) has stated, “Behavioral macroeconomic models also provide theoretical underpinnings for the view held by most policymakers that, in the short run, monetary policy can and should strive to stabilize the real economy.” More recent scholars (e.g., Orphanides 2015) have attempted to explain the Federal Reserve’s own actions via the lens of behavioral economics. Those efforts are extended in this article.

Are policymakers at the Fed likely to experience cognitive failures? DellaVigna (2009: 364) has argued that politicians “are experienced agents facing high-stake incentives and significant competition” suggesting that at least some elements of the political realm are less susceptible to cognitive failure than households. Setting aside whether DellaVigna’s characterization of politicians is accurate, the question of competition and experience has been demonstrated to reduce cognitive failure (List 2003, 2004). However, while there may be some modest choice among currencies, the Fed has few, if any, real equals. The level of competition facing the Fed does not even approach that likely necessary to serve as an effective feedback mechanism.

If competition is unlikely to exist in sufficient degree to eliminate cognitive failures at the Fed, will experience suffice? Members of the Federal Open Market Committee (FOMC) are often professional economists and usually quite advanced in their careers. They serve long terms (in principle, at least). On the other hand, economic crises are, thankfully, not a frequent occurrence. This means that policymakers rarely have the opportunity to learn from them. Federal Reserve Chair G. William Miller stated as much during an FOMC meeting in December 1978 (quoted in Abolafia 2012: 99):

Boston Fed President Frank Morris: Mr. Chairman, I don’t think we understand what is really going on in the economy.

Chairman Miller: I’ll go along with that.

President Morris: I think it’s because we haven’t had enough experience judging the reaction of both the consumer and the investor to an economy with a high rate of inflation.

Chairman Miller: That’s right, we haven’t had any experience.

While Morris and Miller found themselves in an environment of unusually high inflation, other periods have found policymakers wondering how to maneuver in an environment of unusually low inflation (Akerlof, Dickens, and Perry 1996: 50–52). I shall return to this point in more detail below, but both statements from policymakers and the broad economic trends suggest experience alone will be insufficient to eliminate any behavioral biases among policymakers.

Potential Biases in Monetary Policy

Cognitive science has identified a number of potential decision-making biases. Some are more robust than others. Below, I discuss the following biases: availability bias, representativeness bias, status quo bias, loss aversion, and overconfidence. I also offer examples of how each of these may be present in monetary policymaking. The discussion is in no way exhaustive, but rather focuses on the most likely biases, as well as those for which we have some evidence. There remains considerable room for additional research into these and other cognitive biases and their related impact on monetary policy decisions.

Availability Bias

When asked to consider the frequency of possible outcomes, individuals often quickly go to what they can remember about similar situations. Ask any New Yorker about terrorist attacks and 9/11 is unlikely to be far from mind. Ask an economist about inflation and you may well get a lecture on the Great Inflation of the 1970s. Ask about a stock market bust, and you might get the answer “1929.” Ask about when allowing a large hedge fund to fail resulted in a collective financial yawn and you might get a puzzled look (think “Amaranth Advisors LLC”). Where an answer comes easily (“1929”) there is a tendency to overestimate the frequency of such events, whereas when an answer requires some research or consideration (“Amaranth”) the frequencies tend to be more accurately estimated or even underestimated. This is the heart of availability bias (Tversky and Kahneman 1973: 163–65.).

Monetary authorities must often make quick decisions. Should institution X be saved before the markets open in Asia on Monday morning? Will the smallest sign of deflation (or inflation) spiral out-of-control? Will the large scale purchase of assets stimulate lending

and the economy? While there will be, of course, some analysis conducted on these questions, it would not be too ungenerous to describe some actions by the Fed as “spur of the moment.” Witness the ever-changing rationales given for denying assistance to Lehman Brothers.

Given the handful of almost mythical events in the history of monetary policy and financial crises, it is perhaps not surprising that these same events dominate discussions of policy. Federal Reserve Chair Ben Bernanke has occasionally been called the “perfect man” for the 2008 crisis, because of his long study of the Great Depression. But this assumes we were facing another Great Depression. As it’s impossible to know whether that was actually the case in 2008, it is not a stretch to conclude that, given the actions ultimately taken, the implied probabilities of another Great Depression were magnitudes higher than the actual probability. There may be no bigger availability heuristic in macroeconomics than the Great Depression. In all likelihood, especially given their perceived failure to act appropriately in the 1930s, the Fed is operating under a number of availability biases.

Representativeness Bias

Financial and monetary policy decisions can be vulnerable to generalizations. Once we conclude that entity X has characteristic Y, and that entity X is a member of set Z, we may assume that all members of Z have characteristic Y. A common example of this is the stereotype that people who wear glasses are intelligent.

One possible example from Fed behavior is the belief that if bank A is experiencing an outflow of deposits then all other banks must also be experiencing an outflow of deposits (and therefore the broad provision of liquidity is necessary). Yet this assumes a degree of homogeneity across banks that may not be warranted. Without some investigation (preferably with a large sample), one cannot know whether liquidity or solvency pressures at a single institution (or a small handful of them) represents a larger systemic problem. In some cases, such as the Savings and Loan Crisis, individual problem institutions were largely representative; in the recent crisis, on the other hand, there is good reason to believe that troubled institutions were the exception rather than the rule. If the Fed fails to accurately gauge representativeness, it may unintentionally reduce

the transfer of activity from poorly managed institutions to better-run institutions.

Representativeness bias can also impact the conduct of monetary policy. Is an increase in energy or home prices indicative of coming broader price increases? Does a slowdown in manufacturing employment in Cleveland portend a larger trend? These are the sorts of questions that face the Fed on a constant basis. Of course there are attempts at minimizing representativeness bias, such as focusing on consumer prices excluding housing and energy, as well as looking at other price indexes besides the consumer price index. Nevertheless, the finding that the voting patterns of Federal Reserve governors are influenced by which district they came from offers evidence consistent with representativeness bias (Meade and Sheets 2005: 676). Such potential bias can be offset by having a diversity of geographic backgrounds represented on the Board of Governors. However, geographic diversity alone may not be sufficient to offset representativeness bias if Fed governors and regional presidents travel in similar social circles. Complaints about a perceived closeness to banks are in part a concern about representativeness bias.

Status Quo Bias

Even when circumstances dramatically change, we sometimes maintain the same course of action, discounting or even ignoring new information. Kahneman and Tversky (1982) argue that individuals feel greater regret for bad outcomes that result from new actions being taken than they do for bad outcomes that result from inaction. Samuelson and Zeckhauser (1988: 35–36) argue that status quo bias is consistent with loss aversion, as well as sunk cost thinking. Relatedly, procrastination can lead policymakers to delay taking important actions. Orphanides (2015: 183–86) suggests that procrastination “may explain the Federal Reserve’s current “fear of liftoff”—the reluctance to normalize its policy stance despite considerable evidence it should do so.

Loss Aversion

One of the strongest, if not the strongest, finding in experimental behavioral economics is that individuals appear to weight potential losses much higher than potential gains. One result of loss aversion is

that when gains and losses are symmetric or nearly so, risk aversion may set in. Loss aversion is the general explanation for the “endowment effect”—that is, the hypothesis that individuals value an object more simply because they already own it.

Loss aversion can be found in multiple contexts in monetary policy. The “hard fought” battle against the Great Inflation, for instance, might cause a bias against policies that risk greater inflation. On the other hand, moving to tighter policy late in a recovery could be viewed as jeopardizing gains in employment or asset values. Policy goals, especially when given numeric expression, may serve as reference points from which gains and losses are measured. For instance, there is nothing that is particularly special about an inflation rate of 2 percent, yet policymakers’ often expressed goal of hitting a 2 percent inflation target frames deviations from that rate, either below or above, as a loss. The same could hold with an unemployment rate target, although deviations below a specific unemployment target are rarely framed as losses. Witness, for example, the abandonment of the so-called “Evans rule” once unemployment broke its target of 6.5 percent (see Boesler 2014). To some degree, debates over whether the Fed should “consult” a policy rule and report deviations from it rests on an assumption that loss aversion will bias the policymakers toward following the rule even when deviations would be optimal.

Overconfidence

Another common finding in behavioral studies is that individuals regularly offer estimates of their own ability, competence, or judgment that far exceed an objective assessment. One example of overconfidence is the bias of illusory superiority, sometimes called the “Lake Wobegon effect” (in which all children are above average).

Overconfidence is not limited to the layperson, but has also been repeatedly found among experts. Most relevant for monetary policy is the finding that even economists are subject to overconfidence.¹ Policymakers at the Fed may fall victim to overconfidence in managing the macroeconomy in terms of timing, magnitude, and

¹See, for example, Erik Angner’s (2006) study of economic policymaking in the transition from Soviet planning toward privatization.

even the qualitative impact of interventions. Overconfidence can result in Fed actions that are at times “too little” but at other times “too much.” Too little intervention can result when policymakers believe their actions will have larger effects than objective analysis would indicate. Overconfidence can, for instance, cause problems when relying on interest rates to gauge the stance of monetary policy: low rates might mean that policy is easy, but they could also signal a weak economy. In addition, policymakers may also overestimate their ability to unwind an aggressive policy stance.

The presence of overconfidence may not offer conclusive guidance on which particular policies to follow, but it should suggest a greater degree of modesty in forecasting the impacts of those policies, as well as our ability to reverse them.

Can Expertise Overcome Bias?

Despite the possibility of widespread cognitive failures, modern American society largely manages to function. Arguably, it does so relatively well. One avenue for overcoming bias is to rely on those with expertise and experience in a particular field. Although experts suffer from biases like the rest of us, they also have greater opportunities for learning and adjusting to their biases. Some evidence suggests that in the presence of appropriate incentives, such learning does occur (Camerer and Hogarth 1999: 12–13). What is the likelihood that expertise can overcome bias in the realm of Federal Reserve monetary policymaking?

As Daniel Kahneman (2011) has observed, experts suffer from all sorts of biases that result in bad decisions and outcomes. Building upon the work of Paul Meehl (1954), Kahneman argues that experts are inferior to simple algorithms (like a Taylor Rule) because experts “try to be clever, think outside the box, and consider complex combinations of features in making their predictions” (Kahneman 2011: 224). In the studies reviewed and sometimes conducted by Kahneman, experts are always looking for that one additional data point that suggests a different course of action. We see that today, with the Fed claiming its decisions will be “data dependent,” but not telling us what data they will be dependent upon, or how different data will be weighted. Kahneman also notes that experts are inconsistent, giving different answers to the same (or similar) question. This characteristic may

be especially damaging in relaying to market participants the direction of monetary policy. Kahneman (2011: 225) summarized his research with a “surprising” conclusion: “To maximize predictive accuracy, final decisions should be left to formulas, especially in low-validity environments.”

Kahneman and psychologist Gary Klein have investigated which conditions are conducive to relying on the discretion of experts and which are not. It is not surprising that the Fed often characterizes itself as a “firefighter.” Scholars have indeed found that seasoned firefighters have good intuition about things like when the floor of a burning building is about to collapse (Klein 2003). Kahneman’s research, however, finds that these expert skills are built up over time. Novice firefighters do not display the same skills as veterans. This could be one justification for the long terms (14 years) allowed for Fed governors. But most Fed governors do not serve anywhere near that long. The average number of years of experience for FOMC members is just over six years (Woolley and Gardner 2009: 10). As financial crises and turning points in the economy happen less often than that—close to every 13 years in the United States for crises, according to Reinhart and Rogoff (2011)—the fact is that few Fed governors will operate in more than one or two crises. Nor are they even likely to operate in more than one or two inflections in the macroeconomy.

Monetary policy is also inherently subject to unpredictability. As Milton Friedman (1961: 447) observed, monetary policy operates with “long and variable lags.” This is one reason why the Fed often ends up promising specific outcomes that subsequently fail to materialize. The very complexity and unpredictability of monetary policy suggests that the Fed would be more accountable if it were rule-bound.

To summarize these findings, experts can be relied upon when (1) they operate in a regular, predictable environment, and (2) there is an opportunity for learning via repeated practice. Neither of these conditions characterize monetary policy. Behavioral economics has sometimes been presented as an avenue to justify government intervention to correct the failing of ordinary people. Yet the same literature reminds us that policymakers, even experts, also suffer from a variety of biases. Just as default rules may be useful in minimizing consumer errors, they are also likely to be useful in minimizing monetary errors.

Mechanisms to Remove Bias

Although the quantitative impact of cognitive biases on monetary policy is difficult to measure with any precision, the historical record, including statements from FOMC members, suggests that cognitive biases may have a substantial influence on the conduct of monetary policy. Given this possibility, coupled with the importance of monetary policy to macroeconomic stability, I suggest below a number of avenues for reducing the impact of cognitive biases.

Rules-Bound Monetary Policy

The “rules versus discretion” debate in monetary economics has traditionally focused upon the time inconsistency of policymaking. The problem is that in the short run “surprise” inflations by a central bank may produce increases in employment and output. Over time, however, market participants come to anticipate this inflation with employment and output reverting to baseline. The result is higher inflation but no long-run improvement in either employment or output. Rules-based policy that limited the choices of policymakers could resolve this time inconsistency.

Given the stagflation of the 1970s, it is not surprising that era also witnessed a rebirth in the economic debates over rules versus discretion in monetary policy, most associated with the work of Calvo (1978), Kydland and Prescott (1979), Barro and Gordon (1983a, 1983b), McCallum (1984), and Taylor (1985). This body of work largely assumes that policymakers are rational and that errors are the result of misaligned incentives.²

Orphanides (2015: 184–88) has suggested that cognitive biases among policymakers provide an argument for monetary rules. Kahneman (2011), as discussed above, specifies the conditions under which rules are preferred to expert discretion. These conditions would appear to characterize monetary policymaking. Accordingly, requiring an explicit monetary rule, or that deviations from rules be explained, offers considerable potential to minimize the impact of cognitive biases among FOMC members. Further research is warranted on whether different rules are more or less susceptible to inducing their own biases and reducing preexisting biases.

²For an overview of this literature, see Walsh (2010: chap. 7), as well as Alesina et al. (2011). Hetzel (1985) and Tavlas (2014) provide an overview of the earlier debates.

Decisionmaking within Committees

The primary focus of behavioral economics has been on individual decisionmaking, yet monetary policy is often, although far from exclusively, conducted by committee. Blinder and Morgan (2005: 800–1) suggest that, in the context of monetary policy, group decisions are superior to individual decisions. Bainbridge (2002) provides an extensive overview of the behavioral arguments in favor of board decisionmaking relative to individual decisionmaking. For a skeptical view see Sunstein and Hastie (2008).

The difference in these findings may be explained by the structure and composition of the board in question. If a board is constituted of like-minded individuals with similar backgrounds and experiences, then groupthink and confirmation bias become significant risks (see Schulz-Hardt et al. 2000: 666–67). The modern dominance of central banks by economists, for instance, has likely narrowed the range of deliberation and may have contributed to the observed decline in time spent on deliberation (Woolley and Gardner 2009: 15–18). That FOMC members increasingly come from the same geographic areas could also be contributing to a reduction in deliberation and an increase in groupthink. Sunstein (2002: 5) has suggested that “social pressures are likely to lead groups of like-minded people to extreme positions.”

Following Sunstein (2002: 5), if we are to expect committees to be effective at reducing cognitive biases in monetary policy, there must be sufficient encouragement for dissent. The Federal Reserve, in contrast, is well known for its history of discouraging formal dissent. Former Minneapolis Federal Reserve Bank President Narayana Kocherlakota (2016) recently argued that “consensus creates a strong status quo bias that reduces the sensitivity of monetary policy to incoming data.” At a minimum, the FOMC should transition to a norm that encourages greater dissent.

Increased diversity—in terms of views represented on the FOMC—may require legislation. Specifically, the requirements of Section 10 of the Federal Reserve Act should be updated to increase geographic, as well as occupational, diversity (Calabria 2016).

Overall, the behavioral literature provides some support for concluding that committees can potentially reduce cognitive biases. However, the same literature offers sufficient reason to

question whether that finding is robust to committee structure and composition.

Adversarial Review of Monetary Policy

A number of scholars have suggested that adversarial review, either judicial or congressional, can reduce behavioral biases in agency decisionmaking (see Seidenfeld 2002; Babcock, Lowenstein, and Issacharoff 1997). If policymakers know *ex ante* that they will later have to defend their choices, increased deliberation may occur. Third party review could also help in the sense that biases may be more transparent to others than to the biased decisionmakers. If the third party is a nonexpert, policymakers may be forced to more thoroughly examine their own choices in order to explain them satisfactorily.

The perceived reduction in deliberation among monetary policymakers may be related to the increased dominance of the Federal Reserve by economists. Economists deliberating among themselves will generally take for granted a number of assumptions which noneconomists will not. If these assumptions are in error and critical to the deliberations, the lack of scrutiny could greatly undermine the quality of monetary policymaking.

Most agency decisions are and should be subject to judicial review. Monetary policy is notably one that is not. Nor, indeed, is it likely to be. Whether it *should* be is an interesting question, but one which falls outside the scope of this article. The lack of judicial review does suggest, however, that monetary policy is subject to fewer checks than other agency actions. There is congressional review, which has generally been seen as rather ineffective. A potential avenue for reform is the proposal to subject monetary policy decisions to review by the Government Accountability Office (GAO). Having to regularly explain their actions to the GAO may well reduce cognitive bias among members of the FOMC, and so increase the quality of deliberations. A GAO audit could also increase the quality of deliberations at the biannual congressional monetary oversight hearings.

Conclusion

Members of the FOMC are human. Along with that humanity come a number of cognitive biases and limitations that can affect the conduct of monetary policy. Whether such biases have indeed affected policy remains an open empirical question, but anecdotal

evidence, as well as actual comments from FOMC members, suggests that cognitive biases do impact FOMC decisions. I have attempted here a preliminary sketch of some of these potential biases, along with proposed institutional changes that could reduce their impact. The policy that offers the greatest potential for reducing biases is a move toward greater reliance on rules-based decision-making. It should also be recognized, based on the extensive work of Gerd Gigerenzer and others (e.g., Gigerenzer and Gaissmaier 2011), that heuristic decisionmaking can deliver better results than extensive deliberation. However, for the reasons presented above, its usefulness may be less applicable to monetary policy.

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