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Fifty Shades of Quantitative Easing

Comparing Findings of Central Bankers and Academics

By Brian Fabo, Národná banka Slovenska; Martina Jančoková, European Central Bank; Elisabeth Kempf, University of Chicago; and Lubos Pastor, University of Chicago

Since the 2008 financial crisis, central banks around the world have deployed unconventional monetary policy tools such as quantitative easing (QE), forward guidance, and long-term refinancing operations. The popularity of these tools has grown since the outbreak of the COVID-19 pandemic. For example, the Federal Reserve, the European Central Bank, and the Bank of England all announced new large-scale asset purchases in March 2020.

The effectiveness of unconventional monetary policy has been a subject of intense debate in both academic and policy circles. A significant part of the research on QE originates in central banks. This research, which is widely cited in the media, often finds QE to be effective. However, it has an aspect of self-assessment: when central banks evaluate QE, they are judging their own policy. Whether this aspect has any bearing on research output is an empirical question that we address in our work.

We compare the findings of central bank researchers (central bankers) and academic economists (academics) regarding the effectiveness of QE. We construct a data set comprising 54 studies that analyze the effects of QE on output or inflation in the United States, the UK, and in the euro area. For each study, we record its baseline estimates of the effects of QE on gross domestic product and prices along with the significance of these effects. We also collect a variety of other study-specific information, such as publication status and methodology used, as well as detailed biographical information of the 116 different authors. We then compare the findings of studies written by central bankers with those written by academics.

We find that central bank papers report larger effects of QE on both output and inflation. Central bank papers are also more likely to report QE effects on output that are significant, both statistically and economically. For example, while all the central bank papers report a statistically significant QE effect

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on output, only half the academic papers do. In addition, central bank papers use more favorable language—more positive adjectives and, to a lesser extent, fewer negative adjectives—in their abstracts. Overall, central bank papers find QE to be more effective than academic papers do.

We also uncover differences in methodological choices. Yet our main result—that central bankers are more optimistic than academics in their assessments of QE—continues to hold even when we control for model choice. Differences in research quality are also unlikely to explain our results because the gap between central bankers and academics is very similar when we look at published papers only, as well as when we weight each paper by its citations. Our results remain after we include various controls, and they are not driven by central bankers from any single country nor by QE programs in any single country.

To explore one possible explanation, we relate central bankers' research findings to their subsequent career outcomes. We collect employment histories for all central bank authors and convert their job titles to numerical ranks on a six-point scale. For each author-paper pair, we measure the author's subsequent career outcome by the first change in the author's rank following the paper's first public release. We find that authors whose papers report larger effects of QE on output experience more-favorable career outcomes. An increase of one standard deviation in the estimated effect of reporting on QE positively is associated with a career improvement of about half a rank, such as moving halfway from economist to senior economist. This evidence suggests a potential role for career concerns in explaining our results.

These concerns appear to be stronger for senior central bankers—for them we find a stronger relation between the estimated QE effects and subsequent career outcomes. Motivated by this finding, we look at whether the gap between the findings of central bankers and academics is larger for papers whose authors are more senior. We find that it is, though only marginally so. Our results are consistent with the idea that senior central bankers report larger effects of QE because they have a stronger incentive to do so.

Not all central bankers face the same incentives. Top management of the central bank of Germany, Deutsche Bundesbank, has taken a critical view of QE, especially in the context of the European Central Bank. Former Bundesbank officials Axel Weber and Jürgen Stark reportedly quit their positions at the European Central Bank in protest over QE, and the current Bundesbank president, Jens Weidmann, has also publicly opposed it. Mindful of their bosses' views, Bundesbank researchers could potentially face career concerns very different from those of their colleagues at other central banks. Indeed, we show that studies coauthored by Bundesbank employees find QE to be less effective at raising output than do academic studies. While this evidence is weak statistically, it is suggestive of managerial influence on research outcomes.

To shed more light on this influence, we survey heads of research at the world's leading central banks. We received responses from 24 central banks employing over 750 research economists in total. These responses reveal substantial involvement of bank management in research production. In most banks, management participates in the selection of research topics, typically by negotiating with the researcher. Direct topic assignments occur "sometimes" in 50 percent of the responding banks and "often" in 21 percent of the responding banks. In most banks, research papers are reviewed by management prior to public distribution; such reviews happen "always" in 38 percent of the responding banks and "often" in 21 percent of the responding banks. Management also approves papers for public distribution: typically papers are approved by the head of research ("always" in 67 percent of the banks) but sometimes also by the bank board (at least "sometimes" in 33 percent of the banks). Unlike central bankers, academics face little, if any, managerial interference in their research on QE.

As we note earlier, one possible mechanism behind our results is that central bankers face career concerns. Central bank economists may worry that the nature of their findings could threaten their employment status or rank. Such a concern could affect research outcomes even if it is completely unfounded as long as the economist perceives a nonzero probability of such a threat. This effect could operate at multiple levels because both researchers and their superiors want to get promoted. For example, a head of research may be reluctant to defend a subordinate's inconvenient findings in front of the bank's board.

Besides career concerns, a central bank economist may worry that bank management could block the release of studies that find the bank's policy to be ineffective or to have undesirable side effects.

A central bank economist may also care about the bank's reputation, favoring conclusions that validate the bank's actions. Economists may even care about their own reputation if they are senior enough to have participated in the formation of the bank's policy. For example, Ben Bernanke's 2020 presidential address to the American Economic Association offers a strong endorsement of QE. Given his unique experience, Bernanke is exceptionally qualified to assess the effectiveness of QE. At the same time, QE is an important part of his legacy, as it was adopted while he was Fed chair.

A more benign explanation for our results, one that does not involve incentives, relies on differences in prior beliefs combined with selection. Researchers who believe in the power of policy interventions could self-select into policy institutions such as central banks, whereas policy skeptics could end up in academia. Researchers could then favor evidence supporting their prior notions. Moreover, their opinions could be reinforced during the research process, either through confirmation bias or through feedback from colleagues, whose prior opinions may be similar. We have no direct evidence on the validity of this mechanism or the mechanisms described in the previous two paragraphs.

Our study is related to the literature inspecting the credibility of scientific research. It is well known that industry-sponsored scientists may act in the interests of their sponsors. This problem has been extensively documented in biomedical research. Many studies find that research sponsored by the pharmaceutical industry tends to draw pro-industry conclusions. A similar bias could potentially affect central bankers; in fact, while academic medical researchers are merely sponsored by their industry, central bank economists are directly employed by central banks. Central banks evaluating their own policies is not unlike pharmaceutical firms evaluating their own drugs. Both have skin in the game. The problem is particularly acute for central banks that view their research as part of their own policy, because research supportive of a policy could potentially enhance the policy's effectiveness. On the other hand, central banks have a strong desire to alleviate this problem to protect their reputation.

Academic economists who judge central bank policies may not have skin in the game, but they have their own incentive to find strong results because they face the pressure to publish. Academics' career concerns are commonly summarized as "publish or perish." These concerns seem weaker for central bankers, who can often substitute policy work for journal publications. The need to publish creates a pressure for academics to find significant results because of the well-known publication bias: journals are more likely to publish positive results than negative ones. This bias is particularly strong in economics. Some authors do not submit null findings, while others inflate the values of just-rejected methodological tests. Thus, many results in economics may be exaggerated.

The publication bias is not the only thorn in the side of academic research in economics. Academics do not always disclose their private financial affiliations. Other problems include scientific misconduct and the inability to replicate economic findings.

Our research is also related to the literature on career concerns. This large literature finds evidence of such concerns not only for private-sector workers, such as analysts and executives, but also for public-sector workers, such as banking regulators and federal government employees. In contrast, there is little work on the incentives of central bankers. That work focuses mostly on the voting members of a central bank's monetary policy committee. We are not aware of any prior work on the incentives or biases of central bank research economists.

NOTE

This research brief is based on Brian Fabo, Martina Jančoková, Elisabeth Kempf, and Lubos Pastor, "Fifty Shades of QE: Comparing Findings of Central Bankers and Academics," NBER Working Paper no. 27849, September 2020, https://www.nber.org/papers/w27849.