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The Role of Economic Research in Central Banking

Remarks by

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Thank you for the opportunity to speak to you today.[1]

I have spent most of my career conducting research and overseeing research by others, first as a professor and later as a research director in the Federal Reserve System. More recently, I have been more of a consumer than a producer of research as a member of the Federal Open Market Committee (FOMC). Eight times a year, the FOMC meets to set the appropriate stance of monetary policy to achieve the economic goals assigned to us by the U.S. Congress. We discuss where the economy stands in relation to those goals, how it is likely to evolve, and the implications for monetary policy. We examine hard statistical data, "soft" data in the form of surveys and input from business contacts, and other domestic and global factors.

Another vital input for central bankers is economic research. Nearly all central banks have a research group to help policymakers think through the effects of monetary policy on the economy. In the Federal Reserve, the 12 regional Reserve Banks and the Board of Governors have staffs that perform a variety of research activities. First and foremost, they use research to advise the Governors and Bank presidents on the appropriate path of monetary policy given current events. Second, they provide analysis of the global, U.S., and regional economies. Third, economists at the Reserve Banks meet with businesses in their Districts to discuss economic issues and to collect information about the local economy. Finally, there are research groups around the Federal Reserve System that focus on banking, payments, financial markets, financial stability, and community development.

[1] The views expressed here are my own and are not necessarily those of my colleagues on the Federal Reserve Board or the Federal Open Market Committee.

The word "research" is used very loosely in everyday life. When I was a professor, my undergraduates would do "research" to write a term paper. When I go on vacation, I often do "research" on what to do or see at my destination. Analysts at financial institutions do "research" on individual firms or sectors of the economy. For today's talk, I narrow in on the types of research done at central banks, with a focus on the Federal Reserve.

Research at the Federal Reserve

Research is a vital input for providing state-of-the-art advice to policymakers within the Federal Reserve System. Because the Fed is accountable to the public, policymakers must be able to explain why certain actions were taken and describe the intellectual foundations underlying those decisions. Decisions are analyzed, discussed, and criticized by many, in particular by highly skilled and knowledgeable academic researchers. Top academics are on the cutting edge of research, particularly on the subject of monetary policy. Milton Friedman, Allan Meltzer, Robert Lucas, John Taylor, and Michael Woodford are just a few examples of academic scholars who challenged central bankers over the past 70 years on how monetary policy should be conducted. Central banks must be up to the challenge and be able to debate and compete with these academics in the world of theory and ideas.

To do that requires hiring central bank economists who are trained in the academic research tradition and continue working at the research frontier. And that means pursing academic research at central banks. Our decisions will be better if we hire motivated and well-trained economists and let them work on the big questions that economics seeks to answer. The Federal Reserve tries to create a strong academic

research environment to attract strong researchers to work at the Federal Reserve to give us a better foundation for the decisions we make.

When I was research director at the Federal Reserve Bank of St. Louis, I told our board of directors that my goal was to build a department that was renowned for producing high-quality academic research. They often responded by saying, "But the Federal Reserve is not a university. Rather than doing academic research, why isn't your staff doing research on issues that you direct them to work on that helps the president of the Bank?" This is a great question and one that should be asked at every central bank. To answer that question, I would start by explaining the difference between academic research and directed research, which I will now do today. Once I have, it will be clear that directed research relies on its grounding in academic research and is a complement to directed research in supporting policymaking.

Academic Research

Academic research considers a broad range of economic matters. It often focuses on issues that are currently off the radar screens of policymakers who are focused on the near-term economic outlook. But there is value in thinking broadly. Not too long ago, trade policy and tariffs were not a major concern of policymakers. A critical aspect of academic research is that it is often "proactive"—it focuses on intellectually interesting issues often before they become relevant for monetary policy.

Academic research conducted by Federal Reserve economists is often done with the goal of publishing it in academic journals. Papers submitted to these journals go through a rigorous vetting process by economists outside the central bank. This serves as an important check on central bank "group think." The ideas and conclusions of the

paper must be based on sound economic theory and empirical evidence. They cannot reflect dogma or outdated beliefs about how the economy operates.

Academic research can take the form of an evaluation of major economic events, sometimes called an "economic autopsy." This type of analysis can take years, and it's not particularly time sensitive. To this day, economists are still researching the causes of the 2008 financial crisis and how policies undertaken at that time helped or hindered the subsequent economic recovery.

Directed Research

Then there is directed research. Directed research is just that—an issue or policy problem that staff economists are told to work on by their supervisors. It is not unrestricted thinking about an issue. Often, directed research addresses an emerging topic that demands attention from policymakers. As a result, directed research is usually reactive in nature. It often has the feel of firefighting—an issue flares up, and policymakers must respond. They need analysis of the problem to think about the issue and how to act. For example, the April 2 tariff announcement was larger and more extensive than nearly anyone expected. Immediately, questions were asked of staff around the Federal Reserve System such as, "What will this do to the U.S. economy? What will happen to inflation and unemployment?" The answers to these questions are obviously time sensitive.

Directed research often involves running shocks though existing economic models or quick data analysis and it relies on existing economic research. One could call the results "quick and dirty" answers. Because this work is time sensitive, central bank researchers do not have the luxury of getting their directed research vetted by the

economics profession. They simply figure out how the current issue can be incorporated into the models or analyzed with econometrics, and whatever answer comes out is the best they can do in the time they have.

Because directed research is often reactive and time sensitive, researchers must rely on existing published research as a key input into their analysis. You cannot come up with original or innovative models on the spot to deal with an issue that suddenly appears. And, on the data front, you may not have the time to look deeply at the microdata. In these situations, existing academic research done by central bank economists and by academics outside the central bank provides the foundation for conducting the directed research. This is why I say that academic research is a complement to directed research. Good directed research requires academic research. Furthermore, postmortem analysis is not always done after directed research is completed. Once the issue goes off policymakers' radar screens, it might not be looked at again. If the issue resurfaces at a later date, then there may be some postmortem investigation into earlier analyses to see what went right and what went wrong.

Finally, directed research sometimes takes the form of analysis involving the gathering and organizing of facts and data to generate a simple narrative for less specialized audiences. The Beige Book—which is a survey of regional economic conditions done by the Reserve Banks—is a clear example. But it also takes other forms, such as talks by research economists to private-sector audiences, presentations to the Reserve Bank boards of directors, or writing about timely topics in short economic posts.

History of Research at the Federal Reserve

Economic research has shaped monetary policy at the Federal Reserve from its very beginnings, but the form and use of that research has varied considerably over time. I do not have the time today to give this topic the justice it deserves. But I will touch on a few historical highlights. During the early decades of the Federal Reserve System, "research" at the Fed was largely limited to the collection of statistics, only some of which were published by the Fed and other government agencies. At the Reserve Banks, the focus was often on measuring and reporting on regional economies or sectors.[2] Monetary policy decisions were made using policy frameworks that were often not tested in the rigorous and scientific ways associated with economic research today. For example, in the 1920s, the Federal Reserve adhered to the "real bills" doctrine that called for providing liquidity to businesses when it was demanded during expansions and contracting credit when demand for it fell during times of slowing growth.[3] This, of course, is often exactly the opposite of what monetary policy should do to either control inflation in an overheating economy or support economic activity in a slowdown.

Up until the 1950s, journal-oriented economic research in the Federal Reserve System was quite limited. But a big increase took place in the 1950s, when the Reserve Bank presidents became much more involved in monetary policy decisions.[4] Before that,

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[2] The Federal Reserve Board and the Reserve Banks did have several Ph.D. economists on staff who engaged in pathbreaking research. For example, the Federal Reserve Bank of New York's John H. Williams and Randolph Burgess and the Board's E.A. Goldenweiser and Winfield Riefler produced numerous articles and treatises on financial markets, international monetary arrangements, and Federal Reserve policy.

[3] See Ben S. Bernanke (2013), "A Century of U.S. Central Banking: Goals, Frameworks and Accountability," *Journal of Economic Perspectives*, vol. 27 (Fall), pp. 3–16.

[4] Much of the following material draws from Michael D. Bordo and Edward S. Prescott (2023), "Federal Reserve Structure and the Production of Monetary Policy Ideas," Working Paper Series 23-29 (Cleveland: Federal Reserve Bank of Cleveland, November), https://doi.org/10.26509/frbc-wp-202329.

Bank presidents focused mainly on local operations and discount window policy. But once they became more involved in national-level policymaking decisions, their new responsibilities required them to have more specialized research staff who were trained in modern economic theory and data methods. The creation and development of professional research departments led to a greater debate within the Federal Reserve and among outside academics as to how monetary policy should be conducted.

In the 1960s, Keynesian macroeconomic theory was the dominant paradigm in policymaking, and large-scale econometric models were being developed to provide quantitative analysis of monetary policy. The Board of Governors led the way by hiring Ph.D. economists from academia to develop and use these Keynesian models and econometric techniques to aid policymakers. This was an important first step in raising the skill level of research staff to match that of top academics.

But the beauty of the Federal Reserve's structure is that alternative macroeconomic frameworks and theories could be developed in the rest of the System. And the first example of an alternative view of monetary policy was developed by research economists at the Federal Reserve Bank of St. Louis and became a force to be reckoned with.

In the early 1970s, after inflation failed to fall as much as expected in a slow economy, Fed Chairman Arthur Burns came to believe that inflation was very little affected by economic slack and was instead a structural problem that could only be dealt with through wage and price controls.[5] Board models typically viewed the 1970s

[5] See Edward Nelson (2005), "The Great Inflation of the Seventies: What Really Happened?" *Advances in Macroeconomics,* vol. 5 (1); and Christina D. Romer and David H. Romer (2013), "The Most Dangerous Idea in Federal Reserve History: Monetary Policy Doesn't Matter," *American Economic Review: Papers & Proceedings,* vol. 103 (May), pp. 55–60.

inflation as being driven by special factors that were outside the influence of monetary policy. In contrast, at the St. Louis Fed, monetarism was the dominant paradigm in thinking about monetary policy. The Bank's researchers believed the 1970s inflation was driven by excessive monetary growth.[6] This led to a vigorous debate throughout the 1970s between Board staff and St. Louis Fed economists over the sources of inflation and how to bring it back down. At the end of the 1970s, Paul Volcker became Chair of the Federal Reserve and essentially adopted the St. Louis monetarist position of halting monetary growth to bring inflation under control. He announced a fundamental change in the Fed's policy approach, vowing to bring inflation down by adopting strict monetary growth targeting. Volcker succeeded, but at the cost of causing a severe recession.

In the 1980s, the Federal Reserve Bank of Minneapolis became a dominant force in monetary policy research by proposing new economic theories and policy frameworks. In association with economists at the University of Minnesota and the University of Chicago, researchers at the Minneapolis Fed explored how rational expectations would affect the transmission channel of monetary policy. Up until then, Fed forecasting models assumed that individuals had adaptive expectations, meaning they were purely backward looking. This meant that the Board's econometric models didn't account for policy actions that were announced in advance but hadn't taken effect yet. If households and firms did understand how current policy actions and announcements would affect future outcomes, they would react in ways that didn't match the predictions of the

[6] For a discussion of the part played by the Federal Reserve Bank of St. Louis in the development of monetarism, see chapter 13 in Edward Nelson (2020), *Milton Friedman and Economic Debate in the United States, 1932–1972, Volume 2* (Chicago: University of Chicago Press).

Board's forecasting models. This would lead to significant errors in the guidance that the staff provided to policymakers.

A critical finding of all this research was that private agents' inflation expectations were forward looking—they would adjust to promises, and failures, of central bankers to keep inflation low and stable. If people didn't believe a central bank's promise to keep inflation low, then the central bank lacked credibility. This would cause inflation expectations to increase, which would lead to demands for higher nominal wages, thereby feeding future inflation. It is now widely believed that this was a key problem that Volcker faced: His promises to bring inflation down were not fully credible, as they came after the Fed's uneven efforts at fighting inflation over the previous decade. Research on monetary policy, along with the experience of the Volcker years, led to the concepts of "credibility" and "stable inflation expectations" becoming central parts of how every central bank enacts policy.

A key innovation at the Minneapolis Fed that led to this explosion of fundamental macroeconomic research was creating strong research links between Fed researchers and academics at the University of Minnesota. Instead of being on opposite sides of the fence, the idea was to have Fed researchers and academics work together side by side. This frequent interaction led to the type of rigorous debate between academics and Fed researchers that I discussed earlier. As a result, more rigorous and sound monetary policy frameworks were developed over the next several decades. The success of this close interaction between academics and Fed researchers led most Federal Reserve Banks and the Board of Governors to adopt similar relationships that continue to this day.

Another example of the value of economic research came with the onset of the Global Financial Crisis in 2008, the worst since the Great Depression. As it happened, the Fed Chair at the time was one of the world's leading experts on that period, Ben Bernanke. He drew heavily on his and others' research on the 1930s, and related work on Japan's crisis and slow growth in the 1990s and 2000s, to help fashion new monetary policy tools to combat the downturn, including quantitative easing and extended forward guidance.[7]

Does this suggest that central bank policymakers should all be Ph.D. economists and have a record of journal publications? Of course not—there are other skills and work experiences needed in the policy sphere, and the Fed has economists and non-economists among its policymakers. Before the 1990s, very few policymakers were Ph.D. economists, and those who were usually did not have academic records in research; instead, policymakers typically had backgrounds in financial markets or the law.[8] In contrast, since the 1990s, key policymaking roles in central banks around the world have been filled by Ph.D. economists with an academic research background. Today, 10 of the 19 FOMC policymakers are Ph.D. economists. The experience of these economists further embeds economic research into monetary policymaking and strengthens the decisions that are made.

[7] See Bernanke's discussion of the comparison between the Great Depression of the 1930s and the Great Recession of 2007–09 in Ben S. Bernanke (2023), "Nobel Lecture: Banking, Credit, and Economic Fluctuations," *American Economic Review*, vol. 113 (May), pp. 1143–69.

[8] For example, Alan Greenspan, a successful Wall Street economist and chairman of President Ford's Council of Economic Advisers, had not published much in journals when he earned his Ph.D. in economics in 1977, at age 51, 10 years before he became Fed Chair.

In conclusion, I expect research to remain an important part of policymaking at the Fed and other central banks. I believe that the insights provided by this research can further our understanding of the economy and improve monetary policymaking.