Abstract

This paper uses county-level unemployment data and data derived from FOMC meeting transcripts to test the hypothesis that monetary policymakers are influenced by economic conditions in regions that they represent. The analysis confirms that regional conditions affect the policy preferences of Reserve Bank presidents but fails to do so for Governors. It also finds that national conditions matter more than regional conditions for all FOMC members.

JEL Codes: E52, E58

Keywords: Central Banking, Federal Reserve, Monetary Policy, Regional Economic Conditions
The views expressed are those of the authors and do not necessarily reflect the views of the Federal Reserve Bank of Philadelphia or the Federal Reserve System.
… [T]he most likely scenario is that we are going to get back to … the
soufflé economy—one that is rather soft in the middle and firm around the
edges. … [I]f we see some weakness in our area, that will make it difficult
for those of us in the middle part of the country to have a proper
perspective on the appropriate national … monetary policy.

—Cleveland Fed President Jerry Jordan, *FOMC Transcripts*, November
16, 1999, p. 17

Monetary policy decisions are often made by committees whose members have
regional affiliations. At the Federal Reserve, the voting membership of the Federal Open
Market Committee (FOMC) consists of five presidents of regional Federal Reserve
Banks and the seven members of the Board of Governors. The creation of regional Banks
was specifically intended to ensure that the System served all regions of the country, not
just major financial centers. The Federal Reserve Act also prescribed that “not more than
one [member of the Board of Governors] shall be selected from any one Federal Reserve
district.” Thus, institutional arrangements require that members of the FOMC, including
both Governors and Reserve Bank presidents, be selected subject to constraints
mandating regional representation.

Although regional representation was politically salient when the Fed was
founded, it is not obvious that FOMC members should or do actively respond to
economic conditions in their home districts when they make monetary policy choices.
The extent to which regional conditions matter is an empirical question that has produced
conflicting answers. Gildea (1992) and Meade and Sheets (2005) find that FOMC
members respond to regional conditions when they vote on policy directives, but Tootell
(1991) disagrees. Further, Meade and Sheets surprisingly conclude that home-district
conditions are more important for Governors than for Bank presidents, even though Bank presidents have stronger formal ties to regional constituencies.

In this paper, we reconsider two related questions. First, do regional economic conditions influence the policies advocated by individual FOMC members? Second, if regional conditions matter, do they matter in the same way for Governors and Reserve Bank presidents? To answer these questions, we employ data from the Greenspan era (1987-1999) that offers improved opportunities to measure both regional economic conditions and members’ policy preferences.

I. Data

Gildea (1992), Meade and Sheets (2005), and Tootell (1991) all used dissent voting records to measure FOMC members’ policy preferences. Members do not always dissent when disagreements arise, so voting records provide limited information about preferences. We instead use FOMC meeting transcripts to derive measures of members’ preferred policies. In each meeting, Committee members describe their desired policy settings in the policy “go-around,” usually reporting preferences in the form of numerical targets for the federal funds rate. In our sample period, we were able to code desired funds rates in 91.9% of all member-meeting observations; in 14.2% of those cases, members revealed a disagreement with the Committee’s adopted target. This “disagreement rate” is more than double the 6.6% rate at which dissenting votes were cast.

Measuring regional economic conditions is also problematic because Federal Reserve district boundaries do not coincide with those of states. Gildea used data from

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1. Our data collection methods are described in detail in Chappell, McGregor, and Vermilyea (2005).
the city in which a Reserve Bank is located to measure regional conditions; Tootell allocated entire states to the district that included most of the state’s population; and Meade and Sheets weighted state unemployment rates by district population shares. None of these methods correctly matches economic data to district boundaries. In contrast, we have been able to match economic data to Federal Reserve districts with precision. Since 1980, county-level unemployment data have been available, so Federal Reserve district unemployment can be calculated as a population-weighted average of the unemployment rates in counties within the district. This measure correctly aligns data with district boundaries, in contrast to the prorating schemes employed by previous researchers.

II. **Empirical Models and Results**

Because we observe individuals’ desired funds rates, it is possible to estimate monetary policy reaction functions to explain individuals’ preferred policy settings. Using these reaction function estimates, we can then test for regional influences that vary across individuals. We specify our reaction function as

\[ R_{it}^* = X_{it} \beta_i + e_{it}, \quad e_{it} \sim N(0, \sigma_i), \]

where \( R_{it}^* \) is member \( i \)'s desired federal funds rate target for meeting \( t \); the vector \( X_{it} \) includes indicators of macroeconomic conditions; \( \beta_i \) is a vector of parameters; and \( e_{it} \) is a normally distributed random error term. The index \( t \) refers to a sequence of FOMC meetings (meetings were held eight times per year in the Greenspan era).

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2 County unemployment data are from the Bureau of Labor Statistics; county population data are from the Census Bureau. We have seasonally adjusted the original unadjusted unemployment figures.
In our application, $X_r$ includes a pre-meeting “status quo” funds rate and two-quarter-ahead forecast values for the rate of growth of real GDP, the rate of inflation (calculated from the GDP deflator), and the national unemployment rate, all measured as percentages. Data for these variables were obtained from the Green Books available to FOMC members at the time of each meeting. As an indicator of regional economic activity, we include unemployment in member $i$’s district, measured as a deviation from the sample mean for that district (this form is appropriate if districts have different constant natural rates of unemployment). Our data set consists of 1,643 member-meeting observations obtained from 99 Committee meetings. As many as 19 voting and non-voting members participated in each meeting.

Our initial specification assumes that all FOMC members behave similarly in responding to economic conditions. Estimation results are displayed in the first and second columns of Table 1. In the table, Model 2 differs from Model 1 only by including individual fixed effects (estimates of the fixed effects are not reported). Coefficient estimates for the national-level macroeconomic variables are in accord with expectations—all coefficients differ significantly from zero, and signs are consistent with the hypothesis that the Fed “leans against the wind.” The key variable for our purposes is the regional unemployment measure. The coefficients for this variable are negative and significant (with $p$-values of 0.040 and 0.052, respectively). Although the estimates

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3 Governors’ district affiliations are listed on the Federal Reserve Board’s website at www.federalreserve.gov/bios/boardmembership.htm.
4 We exclude observations where members failed to clearly state a target funds rate. Chappell, McGregor, and Vermilyea (2005) report that individual reaction function results are not sensitive to such exclusions.
suggest that both national and regional unemployment measures affect policy preferences, the size of the coefficient for the national variable is about five times larger.\(^5\)

We next consider the issue of differences in regional influences on Governors and Bank presidents. The third and fourth columns of Table 1 report estimates of models permitting different regional unemployment coefficients for Governors and Bank presidents. Model 3 also includes a dummy variable to indicate Bank presidents, while Model 4 includes individual fixed effects.\(^6\) We find that regional unemployment matters for Bank presidents (\(p\)-values are 0.016 and 0.049), but cannot reject the hypothesis of no effect for Governors (\(p\)-values are 0.446 and 0.202).\(^7\) This conclusion contrasts with the finding reported by Meade and Sheets (2005).

III. Conclusions

We have investigated the influence of regional economic conditions on FOMC members’ monetary policy preferences. To do so, we have used FOMC meeting transcripts to identify member preferences, and we have carefully matched regional economic data to Federal Reserve district boundaries. The results suggest two conclusions. First, regional economic conditions influence FOMC members’ preferred policies, but have smaller effects than comparable national-level indicators. Second, regional conditions are important for district Bank presidents, but not for members of the Board of Governors.

\(^5\) The difference in coefficients is statistically significant at better than the 0.01 level.
\(^6\) The estimated coefficient for the Bank president variable in Model 3 confirms a well-known tendency for Bank presidents to favor tighter policies than Governors.
\(^7\) Despite these results, we cannot reject the hypothesis of equal coefficients for Governors and Bank presidents in either Model 3 or Model 4.
Apart from our results, there are good reasons to question the plausibility of the hypothesis that Governors respond to regional conditions. Although Governors have formal district affiliations, these often seem to be determined as a matter of convenience in meeting the legal requirement for regional diversity. Governor Roger Ferguson currently “represents” the Boston district (where he once lived as a student) despite growing up in Washington, D.C., and despite working in New York during the 17 years preceding his appointment. The formal affiliations of some other Governors are also questionable. If Governors’ district affiliations are not meaningful, we should not expect district economic conditions to influence their policy preferences.
References


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<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
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<td>-0.064 (0.000)</td>
<td>-0.068 (0.000)</td>
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