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Banker preferences, interbank connections, and the enduring structure of the Federal Reserve System ☆

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ABSTRACT

Established by a three person committee in 1914, the structure of the Federal Reserve System has remained essentially unchanged ever since, despite criticism at the time and over ensuing decades. This paper examines the original selection of cities for Reserve Banks and branches, and placement of district boundaries. We show that each aspect of the Fed's structure reflected the preferences of national banks, including adjustments to district boundaries after 1914. Further, using newly-collected data on interbank connections, we find that banker preferences mirrored established correspondent relationships. The Federal Reserve was thus formed on top of the structure that it was largely meant to replace.

1. Introduction

The Federal Reserve System recently reached a centennial milestone. President Woodrow Wilson signed the Federal Reserve Act on December 23, 1913. The Act assigned to a Reserve Bank Organization Committee (RBOC) the task of determining the number of Federal Reserve districts (between eight and twelve), the boundaries of each district, and the location of a Reserve Bank within each district. The RBOC acted quickly, announcing the selection of 12 cities for Reserve Banks and the locations of district boundaries on April 2, 1914. The choices made by the RBOC were criticized at the time and are widely viewed as out of date today. For example, the RBOC placed four Reserve Banks (Boston, New York, Philadelphia and Cleveland) within just a few hundred miles of each other and two Reserve Banks in the state of Missouri, but assigned only four Banks (Minneapolis, Kansas City, Dallas and San Francisco) to serve nearly the entire western two-thirds of the country. Various proposals have been made over the years to restructure the Fed to reflect changes in the geographic distributions of U.S. population and economic activity.[1] However, despite calls for

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[1] Recent examples include Bordo (2015), Dearie (2015) and Fisher (2015). Senate bill S.1484, The Financial Regulatory Improvement Act of 2015, would, among other things, establish an independent Federal Reserve Restructuring Commission to study the appropriateness of restructuring the Federal Reserve districts.

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reorganization at various times in its history, the structure of the Federal Reserve System has remained largely fixed since 1914, with only minor adjustments to district borders and branches.

This paper examines the determinants of the entire original structure of the Federal Reserve System, including Reserve Bank cities, district boundaries and branch office locations. Better understanding of the reasons underlying the Fed's original design can inform ongoing debates about restructuring the System. Further, the choices made by the RBOC in 1914 have proved important historically. Commercial banks rely on the Federal Reserve Banks for payments services and liquidity in times of need.[2] The Fed's performance in carrying out these functions has real economic consequences. For example, during the Great Depression, the Federal Reserve Bank of Atlanta's liberal lending policy resulted in differences in response to crises and superior economic performance in the portion of Mississippi served by the Atlanta Fed than in the portion served by the Federal Reserve Bank of St. Louis, which had a more conservative policy (Carlson et al., 2011; Richardson and Troost, 2009; Ziebarth 2013). Further, the establishment of a Reserve Bank appears to have conveyed long-term economic benefits on at least some of the cities where they were located (Odell and Weiman, 1998).

There remains a debate about the criteria used by the RBOC to select the locations of Federal Reserve Banks and district boundaries. Several studies conclude that, in selecting cities for Reserve Banks, the RBOC relied heavily on the results of a survey of national banks (e.g., Odell and Weiman, 1998; Meltzer 2003; McAvoy 2006; Binder and Spindel, 2013), but studies disagree about other criteria that influenced the RBOC's decisions. Moreover, most studies examine only the selection of cities for Reserve Banks and do not consider the location of district boundaries or branch offices.[3] We show that soon after the Fed's founding, branch offices were placed in many of the cities that had received considerable support from banks in the RBOC survey, which could help explain why pressure to move Reserve Banks or alter district boundaries has never been strong enough to bring about significant changes to the System's structure.

The authors of the Federal Reserve Act clearly anticipated the need for branch offices. As Carter Glass explained in April 1914: “The banking operations and the commercial transactions of any given territory will be practically maintained as they exist today, for the reason that such territory will transact its business with the branch bank instead of the Regional Reserve Bank, if more convenient” (Weed 1914, p. 4).[4] As such, the RBOC may have considered possible branch locations when it selected cities for Reserve Banks and delineated district boundaries. In forming most districts, the RBOC had no choice but to combine territories whose national banks favored different cities for the location of a Reserve Bank. The subsequent establishment of branch offices thus linked more banks with their preferred city and helped knit together distinct markets within Reserve districts. In addition, the establishment of branches may have encouraged state-chartered banks to join the Federal Reserve System. [5] Hence, a comprehensive examination of all components of the Fed's structure helps to better understand the organization of the System as a whole.

We confirm that the responses of national banks to the RBOC survey were important for structuring the Federal Reserve System. Both the total number of votes and county-level tallies help explain the cities chosen for Reserve Banks, regardless of the control variables included in the model. Moreover, we find that the votes also help explain the location of branches of Reserve Banks and district boundaries. Most Federal Reserve districts were formed by joining together contiguous blocs of counties that had supported different cities for Reserve Banks, with branch offices opening in many of the cities that were not awarded Reserve Banks.

Given their importance for the System's structure, we also seek to explain the votes of national banks for individual cities. Despite the emphasis of previous studies on how the preferences of national banks helped shape the structure of the Federal Reserve System, researchers have not systematically investigated the underlying determinants of those preferences. However, in their study on the establishment of Federal Reserve Banks in Atlanta and Dallas, Odell and Weiman (1998) note that leading banks in those cities had developed substantial correspondent banking businesses by the early 20th century, holding deposits and providing services for banks located in their respective regions. Further, both Atlanta and Dallas were top choices for Reserve Banks among national banks in their regions, suggesting that correspondent ties may have helped garner support from national banks already accustomed to doing business with financial institutions in those cities.

Using newly-collected information on the locations of the principal correspondents of all U.S. national banks, we find that the number of correspondent links to a given city help explain both the total number of votes for the city and the number of counties from which it received the most first-choice votes. The Federal Reserve was thus formed on top of the existing interbank network structure, elements of which it was meant to replace.

The next section discusses why the Federal Reserve was established, focusing especially on how the System's geographically-decentralized structure was designed to overcome banking system flaws that reformers saw as contributing to instability. Subsequent sections examine i) the selection of cities for Federal Reserve Banks and branches, ii) the delineation of Reserve district boundaries, and iii) the importance of established correspondent relationships for explaining the

[2] The Federal Reserve Act required all banks with federal charters, i.e., national banks, to become members of the Fed, but membership was made optional for state chartered banks. Fed services and discount window loans were generally not available to nonmember depository institutions until the Monetary Control Act of 1980.

[3] McAvoy (2004) is an exception. He shows that the territories assigned to Federal Reserve districts generally align with the responses of national banks to the RBOC survey, but does not test alternative hypotheses.

[4] Glass sponsored the legislation that became the Federal Reserve Act in the House of Representatives. He has long been identified as the “father” of the Federal Reserve System (http://www.federalreservehistory.org/People/DetailView/14).

[5] Tippetts (1929) reports that many state banks joined the Federal Reserve System only after the opening of a nearby branch office.

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