Setting the Stage for a Central Bank: Conditions in the West before the Federal Reserve Act

On the eve of the Federal Reserve Act's adoption in 1913, the western United States had already developed elements of a banking system and established trade patterns. The region had prospered through the gold rush and struggled through financial challenges following the San Francisco earthquake and fire of 1906. These experiences shaped the character of the region and the country as they entered a new era of U.S. central banking.

San Francisco Banking Center circa 1920.

Image courtesy of the Library of Congress Prints and Photographs Division.

The Banking Landscape

In 1913, the United States had a full-fledged dual banking system, consisting of roughly 27,285 banks. About 30% of these banks, known as national banks, operated under a set of federal rules and regulations.[1] The rest, called state banks, were chartered by states and followed the supervision and rules established by their respective states.

The seven states that would comprise the earliest form of the Twelfth District—Arizona, California, Idaho, Nevada, Oregon, Utah, and Washington—had 1,733 banks and made up roughly 6% of all banks in the United States in 1913. Although this constituted a small percentage of the country's financial intermediaries, banking activity had nevertheless been growing rapidly: the number of banks tripled between 1896 and 1913, a rate of growth that was faster than the rate of population growth. As a result, the number of banks per 10,000 residents in the seven western states rose from 2.42 to 3.35 between the 1890s and the 1910s (see Table 1 at end of document).

One distinctive feature of many of the western states was their reliance on branch banking. Branching grew explosively in the 1920s in California, but western states were pioneering branch banking even earlier. By 1910, four of the seven states that would make up the Twelfth District had banks with branches, and these banks accounted for 18% of all branch offices in the United States. In contrast, head offices of commercial banks in the West were only 6% of the national total.

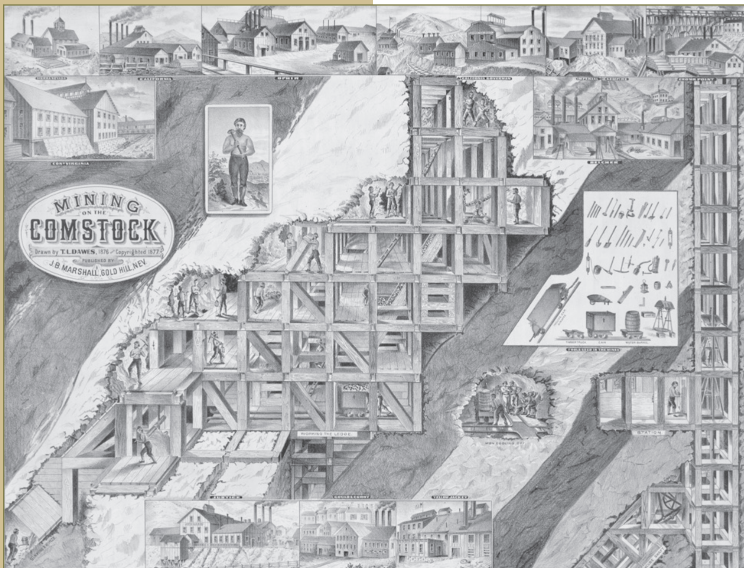
Branching was a particularly effective means of transferring money between regions of a state where demand was high in one locality and low in another. In California, for example, many of the agricultural crops matured at different times, so funds could be transferred where capital was in demand. The same variability was true for capital demands between the north and south of the state and for inland versus coastal areas, thus branching improved the efficiency of the banking system by moving capital where it was most needed.

1 Calculations in this section are based on Board of Governors (1959).

Importantly, branching in the West was not limited to the city where a bank had its headquarters office: roughly 65% of the branches in the region were outside the home-office city. Branching activity also led to a type of industry centralization even before the founding of the Fed—which itself represented a form of centralization in terms of payment systems, check clearing, and other services.

Clearinghouses played an especially important role in the banking system before the founding of the Fed. The San Francisco Clearinghouse (a mutual association of banks) was established in 1876, and during the fire of 1906 (as discussed below) the association held daily meetings in the unburned residences to keep the local economy afloat. During the panic of 1907, $13 million in clearinghouse certificates were issued for circulation. San Francisco further adopted a system of examination for the clearinghouse in 1908, and was the second city in the country to do so.

In other parts of California, clearinghouses also were developing. Los Angeles organized the state's second clearinghouse in 1887. The conditions following the San Francisco fire in 1906 led to the creation of the Oakland clearinghouse, as the fire made it difficult for Oakland banks to clear transactions through San Francisco. In 1907, clearinghouses were also organized in Sacramento, Stockton, and Fresno, largely in response to difficulties following the fire.



Mining on the Comstock circa 1877.

Image courtesy of the Library of Congress Prints and Photographs Division.

Financial Development and the Economic Character of the West

The discovery of gold, silver, and other minerals in the West primed the pump for economic development in states such as California and Nevada. The mineral booms attracted people, including immigrants, as well as capital, initially to support the mining activity. Timber resources were important in other states like Oregon and Washington. Throughout the region, however, agriculture eventually emerged as the most important sector of the economy.

Before 1860, most manufactured products flowing into the area were imported from the East Coast or Europe, but manufacturing slowly increased its importance over the remaining part of the nineteenth century and grew by 42% in the last decade. By 1899, California ranked twelfth in gross annual value of all manufactured products. Railway and machine products and processed agricultural goods (sugar, molasses, beef, canned goods, flour, malt, and leather) were among the biggest manufactures at the end of the nineteenth century. Timber products ranked first in Oregon and Washington, and printing, an output of the timber industry, was also important in California.

Foreign trade and transportation innovation also transformed the western region. Agricultural products and later manufactured goods were exported to both Europe and Asia. Correspondent banks in the East primarily handled the European trade, while larger banks in Oregon and Washington maintained correspondents in Hawaii and Hong Kong to finance Asian trade. Most common, however, was to use correspondents in San Francisco to meet the demands for payments. The "big four"—Collis Huntington, Mark Hopkins, Leland Stanford, and Charles Crocker— were at the center of an informal financial network based in San Francisco in the 1860s that financed the Southern Pacific and other railroads, steamships and steamer lines, and an active import-export trade in woolens, furniture, wheat, sugar, and lumber (Odell 1989).

Gathering and drying raisins in California circa 1900.

Image courtesy of the Library of Congress Prints and Photographs Division.

The western states' economy continued to expand in the first part of the twentieth century as reflected in both population and output. Population in the seven western states grew from 1.3 million in 1880 to 3 million in 1900 to nearly 7 million by 1920. Urban population grew at an annual rate of 8.6% between 1880 and 1900, and 10.6% between 1900 and 1920, faster than the overall population growth of 6% per annum. Farm land in the seven states rose from 59 million acres in 1900 to 64 million in 1910 and 78 million in 1920.[2] Farm population also grew from 919,000 to 1.49 million over this period. And farm values quintupled. At the time of the founding of the Fed, copper, timber, hay, and meat were the top products in terms of value, and manufactures amounted to roughly one-third of those produced in New York City (Willis 1937).

Personal incomes per capita were among the highest in the country from 1880 to 1920 for the Pacific and Mountain states. Even after adjusting for the higher prevailing prices and high labor input (the western states received a boost from having relatively few dependents and many prime-age working males), productivity was only slightly less than the Northeast and still well above the U.S. average (Mitchener and McLean 1999).

The resource booms of the mid-nineteenth century shaped not only the economic character of the West but also its financial development. Digging up money through mineral discoveries may have played an important role in transforming San Francisco into a financial center so quickly. The accumulation of capital would likely have been slower and more dispersed without this (Odell 1989). The U.S. economy, stretching coast to coast, was still not entirely integrated despite the fact that an increasing portion of the nation's population was moving or had moved westward. The relative isolation of the West may have actually aided San Francisco's rise as a financial center by preventing funds from being drained out of the region to a bigger center such as New York City (O'Dell 1989). San Francisco's naturally protected harbor, access to sea lanes, and commercial primacy that arose through its central role in the gold rush (including the concentration of wealth that resulted) made it a natural hub for financial activity in the West. San Francisco banks acted as correspondents for banks located in the economic hinterlands, clearing checks, holding reserves, and negotiating loans and deposits. Among coastal banks, 80% had a San Francisco correspondent (Odell 1989).

Drawing of two gold miners.

Image courtesy of the San Francisco History Center, San Francisco Public Library.

Distance from money centers in the eastern United States and the lack of a communication infrastructure deprived the region of outside capital. Funds were initially generated by retained earnings of commercial enterprises as well as retailers and wholesalers who had intimate knowledge about the operations of businesses. Saving rates in California, for example, were 5 percentage points above the national average (Odell 1989). Eventually financial intermediaries sprang up to service the growing economy, and San Francisco emerged as the geographical center of financial services in the western states. Hence, until 1890, the states on the Pacific coast depended on their own capital resources. Indeed, the western states found themselves largely free of eastern financial connections when the rest of the country suffered the panic of 1893, and therefore they weathered it quite well.

2 See U.S. Department of Commerce (1975).

Run on 19th Ward Bank, New York City.

Image courtesy of the Library of Congress, Prints and Photographs Division.

Pivotal Events for the Founding of the Fed

It is well documented that agitation for creating a central bank in the United States increased after the nationwide panic of 1907. Recent research suggests that events on the Pacific Coast played a pivotal role in creating that panic and, indirectly, in swaying public opinion in favor of a central bank (Odell and Weidenmier 2004).

A massive earthquake hit San Francisco on Wednesday, April 18, 1906, triggering widespread fires in the city and ultimately destroying roughly half of it (four square miles). Around 1,500 people were killed and property damage was estimated between $350 and $500 million.

The funds to rebuild San Francisco largely came from abroad. British insurance companies were particularly exposed as they had more than $87 million in policies in San Francisco with an estimated $46 million in losses (The Economist 1906). Maintaining adequate gold reserves was necessary for countries to be on the gold standard, which operated in the late nineteenth and early twentieth centuries. The San Francisco earthquake and insurance payments that followed induced a massive flow of gold amounting to $65 million from England to the United States. This figure represented roughly 40% of seasonally adjusted British gold exports for all of 1906 and resulted in a 14% decline in England's gold money stock. The gold flow accounted for over 80% of the total of seasonally adjusted gold imports into the United States that year. The role the earthquake and insurance payments played in inducing this massive flow is demonstrated by examining gold imports through the port of San Francisco. Typically, the port of San Francisco represented a negligible amount of total U.S. gold imports, but in the late summer and early fall of 1906, San Francisco alone accounted for roughly 9% of all seasonally adjusted U.S. gold imports for that year (Odell and Weidenmier 2004).

General view of the ruins of the San Francisco earthquake and fire circa May 1906.

Image courtesy of the Library of Congress, Prints and Photographs Division.

Large unexpected movements in gold could be very disruptive to financial markets and economic activity. The gold outflow from England to San Francisco placed pressure on the pound sterling to devalue. In response, the Bank of England took defensive measures to protect the sterling and dramatically raised its discount rate from 3.5% to 6%. By the end of 1906, England had changed from a net gold exporter to a net importer. Maturing finance bills (which England had stopped refinancing) led to a sell-off of American railroad securities. The U.S. economy fell into recession in May 1907 and industrial production declined by 40% in the next three months. A full-blown financial crisis erupted in October 1907 with the collapse of the Knickerbocker Trust Company in New York (Odell and Weidenmier 2004).

The Knickerbocker Trust Company building in New York. March, 1908.

Image courtesy of the Library of Congress, Prints and Photographs Division.

At the time of the panic of 1907, Pacific Coast banks found themselves heavily involved with eastern financial centers, partly as a result of greater trade with the Atlantic Coast. Western banks could meet most of their short-term needs locally or regionally, but relied on the rest of the country for longer-term capital that could be used for development projects such as utilities, railroads, and manufacturing processes. San Francisco was slow to develop investment banking, and New York City remained the center, so the most immediate effect of the panic on the region was a drop-off in funds available for long-term investment projects. Among the casualties was California Safe Deposit and Trust Company of San Francisco, which failed due to $9 million in unprofitable investments.

Another response to the panic of 1907 was tighter regulation, such as the California Banking Act of 1909. Regulation and supervision of banks varied considerably across localities, and other states in the Pacific region often had even more rudimentary supervisory systems than California, in part because banks were still incorporated by special legislative acts.

Proponents of a central bank pointed to other shortcomings of the system that operated in the first decades of the twentieth century. These included an inelastic currency that was unresponsive to seasonal demand for money and that made the banking system prone to panics; a system that was dominated by small unit banks that lacked diversified portfolios and were potentially more prone to idiosyncratic shocks; the absence of a truly national discount market under the national banking system; a failed Treasury system that had not helped the U.S. government to act as its own banker; and inadequate facilities for handling domestic exchanges between localities. With branching practiced in a very limited way nationally, the disparate and fractured nature of unit banking meant that the system primarily serviced local communities. As a result, loanable funds were not optimally allocated. Geographic linkages existed almost exclusively through correspondent networks, and some viewed this fractured banking system as inadequate for serving a growing national economy. The panic of 1907 further fueled the flames of reform because it suggested that the system was prone to crisis.

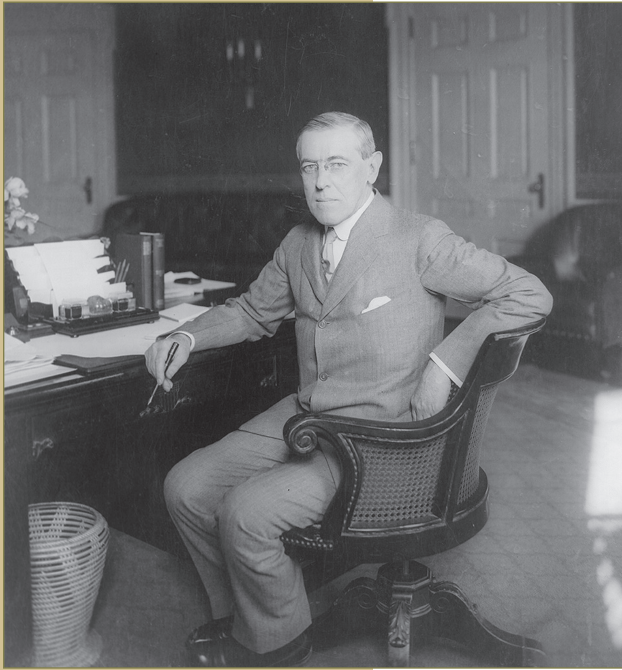
Nelson Aldrich served as the United States Senator from Rhode Island from 1881 to 1911.

Image courtesy of the Library of Congress, Prints and Photographs Division.

Agitation for Reform

In 1910, Senator Nelson Aldrich of Rhode Island convened a meeting on Jekyll Island, Georgia, where policymakers (including Henry Davison, Frank Vanderlip, Paul Warburg, and A. Piatt Andrew) met secretly to draft legislation—supposedly independent of Wall Street influence—to create a central bank for the United States. The proposed central bank or "National Reserve Association" would have 15 quasi-independent branches, with policy to be coordinated through a national committee and with participation from each of the branches. Although the "Aldrich Plan," as it became known, ultimately did not pass Congress, some features, including the decentralized structure that led to the formation of Reserve Banks, were preserved.

The Aldrich Plan spurred bankers to create the "National Citizens League for the Promotion of Sound Banking," several branches of which were established in 1912 in San Francisco, Los Angeles, Fresno, Sacramento, Stockton, San Diego, and other western cities. This organization issued pamphlets and organized conferences and meetings encouraging change in the nation's banking system.



President Woodrow Wilson circa 1913.

Image courtesy of the Library of Congress, Prints and Photographs Division.

In the 1912 election, both political parties condemned the Aldrich Plan, but President Woodrow Wilson changed course after the election and revived a greatly modified version of it in June 1913. Each Federal Reserve Bank would operate under its own board of nine directors, with six chosen by bankers (stockholders) of the region and three chosen by the Federal Reserve Board. He proposed a semicentralized banking system, with the activities of each district grouped around its own Federal Reserve Bank. San Francisco was on its way to taking its place as a regional headquarters for the Federal Reserve System (Wood 2005 and Friedman and Schwartz 1963).

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Table 1
Banking Characteristics in the Western Region

Total Banks	1896	1900	1913
Arizona	12	21	56
California	281	287	720
Idaho	33	40	192
Nevada	12	10	33
Oregon	78	78	255
Utah	37	39	101
Washington	109	107	376
Total	562	582	1733
Population (1000s)	**1890**	**1900**	**1910**
Arizona	88	123	204
California	1213	1485	2378
Idaho	89	162	326
Nevada	47	42	82
Oregon	318	414	673
Utah	211	277	373
Washington	357	518	1142
Total	2323	3021	5178
Banks per 10,000 residents	**1890s**	**1900**	**1910s**
Arizona	1.36	1.71	2.75
California	2.32	1.93	3.03
Idaho	3.71	2.47	5.89
Nevada	2.55	2.38	4.02
Oregon	2.45	1.88	3.79
Utah	1.75	1.41	2.71
Washington	3.05	2.07	3.29
Total	2.42	1.93	3.35

Note: Calculations are based on data from U.S. Department of Commerce (1975), part 1, pp. 24-37, and Board of Governors (1959).

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