Introduction

The National Banking Era of the United States (1863-1914) experienced several periods of financial crisis. The Panic of 1907 was the last of these periods. At no other time in the history of the US banking system had a bank panic been so widespread throughout the country. Unlike European countries, the US did not have a central bank that could issue additional reserves in a period of instability. However, private institutions known as clearinghouse associations stepped in to provide liquidity to the banking industry. This paper will examine the performance of various clearinghouse associations. In particular I plan to compare the experiences of other clearinghouse associations to the largest clearinghouse association in New York. The paper will be divided into several parts. First we will review what a clearinghouse is and briefly discuss its evolution. Second we will discuss what bank panics are and talk specifically about the Panic of 1907. We will then proceed to the specific experiences of the clearinghouse associations themselves.

An overview of the Clearinghouse Association

A clearinghouse association is a “device to simplify and facilitate the daily exchanges of items and settlements of balances among the banks and a medium for united action upon all questions affecting their mutual welfare.” (Cannon 1910, p. 1). Clearinghouse associations were initially started for the purpose of mitigating the cost of redemption among various banks within a region. In the past banks sent a runner to each bank to settle all balances. Instead of going to multiple banks for redemption it was agreed by the existing banks to establish a common meeting place to send their respective runners where balances could be exchanged (Redlich 1968, p. 45). One of the first such institutions in the U.S. was informally set up in 1853 in New York City. There was no formal set of rules or constitution drafted for the first clearinghouse because it was feared by many of the early members that it would lead to a concentration of power to those who controlled the clearinghouse (Redlich 1968, p. 51). However, after only one year in
existence, the clearinghouse had proved its value to its members and in 1854 a constitution was drafted. Impressed with the success of this first clearinghouse additional cities such as Boston, Philadelphia, and Baltimore all started clearinghouse associations in 1856, 1858, and 1858 respectively (Redlich 1968, p. 51).

In addition to the exchange of checks and drafts, over time the clearinghouses took on additional functions. One of the important functions was that of a monitor of banks. This monitoring had benefits for consumers as well as banks. For consumers clearinghouses provided the form of credible supervisor who provided reliable nonpartial financial information on the banks. This provides assurances to the consumers in the form of perceived financial stability of their accounts. For banks, the gain from industry supervision is analogous to employees in a firm: if one employee shirks there will be a higher cost imposed on all the other employees. “…Banking is characterized by just such a condition since shirking by one bank can lower the return to another directly.” (Gorton and Mullineaux 1987, p. 461). If one bank fails (shirks) then other banks could suffer because customers will now want to monitor their own banks for fear of more failures. Gorton and Mullineaux point out such customers monitoring can lead to a bank run and affect both solvent and insolvent banks. Because of this negative externality the banks have an incentive to establish means of monitoring the performance of other local banks. The clearinghouse provides the means to watch over member banks.

The monitoring function shows a useful byproduct generated by the clearinghouse—information. Without the assurances of the clearinghouse customers are forced to rely only on the information provided by the banks when assessing the financial stability of the industry. In this scenario the banks may have an incentive to not disclose all information if the business environment does not favor the bank’s condition.

Another important service of the clearinghouses was the issuance of clearinghouse loan certificates. The panic of 1857, only four years after the establishment of the NY clearinghouse, is the first case of the clearinghouses using clearinghouse loan certificates. Clearinghouse loan certificates were issued through “temporary loans made by the banks associated together as a clearinghouse association to the members thereof, for the purpose of settling clearinghouse balances.” (Cannon 1910, p. 76). These certificates were issued only in times of crisis (bank panics) and took the place of ordinary reserves. Banks would use the loan certificates to settle balances thus allowing them to use their
remaining cash for making loans, discounts, and other obligations with their customers. In essence, the issue of clearinghouse loan certificates temporarily made the clearinghouse into a fractional reserve institution (Timberlake 1984, p. 4). As the panic subsided the loan certificates were redeemed at the clearinghouse and retired. Many monetary economists of the early twentieth century view the creation and use of clearinghouse loan certificates as the most important development which took place in American banking during the National Banking era (Redlich 1968, Cannon 1910, Andrew 1908a, Sprague 1910).

In a relatively short period of time the clearinghouse associations had developed from a central place for banks to settle their balances to a financial institution that provided benefits not only to it member banks but also to the customers of those banks. It later also served as a framework for establishing what became the Federal Reserve System. The absence of a central bank made the rise of the private clearinghouse especially dramatic in the United States and its functions expanded substantially during the National Banking Era (Dowd 1994). The creation and evolution of the clearinghouse associations was clearly one the most significant events during the National Banking Era. The next section will discuss the formulation of the bank panics in general and the Panic of 1907 in particular.

An Overview of Bank Panics

A panic “occurs with a sudden shift in the perceived riskiness of demand deposits at all banks, leading depositors to demand large scale transformation of deposits into currency.” (Gorton 1985, p. 279). The vagueness of this definition implicitly states the problem with bank panics. Because they are based perceived riskiness of demand deposits it is extremely difficult to know what will set off a run and then a panic. During the National Banking Era there were sporadic runs from 1857 to 1907 and each one had different underlying causes for the sudden shift in perceived riskiness. The precise variables and conditions needed to create such a banking panic have varied from panic to panic but whatever the underlying cause of the panic the possibility of significant negative externalities on the banking industry substantially increased over time.
During the last half of 1907 the US suffered the worst bank panic during the National Banking Era. Abram Piatt Andrew, an economist who worked for the National Monetary Commission noted the following about the panic: “The closing months of 1907…were marked by an outburst of fright as widespread and unreasoning as that of fifty or seventy years before…” (Andrew 1908a, p. 290). The 1907 panic was not only the most widespread but also saw the largest use of clearinghouse loan certificates. In 1907, clearinghouse associations issued about $500 million worth of loan certificates in the US. This is compared to the last panic in 1893 during which $100 million were issued (Gorton 1985, p. 282). So what caused such a severe panic?

The initial event that appears to have triggered the “shift in perceived riskiness” was the attempt by F. Augustus Heinze to corner the copper stock market. This explanation was first discussed by Sprague (1908, pp. 357-62) and later summarized by Moen and Tallman (1990, pp. 4-7). F. Augustus Heinze, who had acquired a large fortune in Montana copper properties, had also earned a reputation for dishonest business methods. When the attempt to corner the market failed in late October the Mercantile National Bank, of which Mr. Heinze was a director, was no longer able to meet its balances at the New York clearinghouse. The New York Clearinghouse Association (NYCHA) granted assistance to the bank and began an investigation of its practices of all the member banks. This investigation exposed an intricate network of interlocking directorships across many financial institutions in the New York City (NYC) banking industry. This is an example of the information byproduct discussed earlier.

One of the directors at the Mercantile National Bank, C.F. Morse, was also identified to be involved in many NYC banks, brokerage houses and trust companies. Morse was described by Sprague (1908, p. 357) as a person “whose activities in the industrial and banking world had had been of an extreme character, even when judged by American standards.” Mr. Morse was a director at seven banks including the Mercantile National Bank and appeared to have complete control over three of them. The consolidation of power among a few businessmen of questionable integrity was used by Sprague to point out that he believed to be another contributing factor to panics. “The narrative of the crisis may…call attention to the significance of this Heinze-Morse episode as an example of a deep-seated cause of the weakness in the American financial world. National Banks are not permitted to open branch offices and most states have enacted similar legislation.”
(Sprague 1908, p. 358). The inability of banks to branch out allowed the opportunity for a few people to consolidate power by Sprague’s estimation. The relationship Heinze and Morse had with other banks made depositors concerned about solvency of banks within the NYC area.

While the Heinze-Morse episode demonstrated flaws within the banking industry, the event alone was not the sole cause of the panic. Later in October, panic conditions resurfaced in NYC when deposits at the Knickerbocker Trust Company, the third largest trust company in NYC, were being redeemed for specie at rapid rates. The reason for the run according to Sprague was the president of the Knickerbocker Trust Company had connections to some of Mr. Morse’s enterprises. This created distrust among deposits and led depositors to question the trust companies business practices.

After the initial run on the Knickerbocker Trust Company runs ensued on many other trust companies in New York. It was the runs of these trust companies and the Heinze-Morse episode that touched off the panic in New York. The panic spread to the rest of the country because New York was the center of the financial industry in the United States. In a 1907 article of the Banker’s Magazine, Charles Conant reported approximately thirty percent of total banking resources (capital, savings etc.) for the entire country were located in the financial institutions of New York City (Conant 1907, p. 659). In addition to banking resources, Conant also states about half of the gold reserve in the US was held in New York (Conant 1907, p. 660). Had New York not been the center of banking for the entire country the runs would have remained a local problem. Instead these runs touched off worries throughout the country. The rest of the paper will show what some of the clearinghouses responses were to the onset of this panic.

**The Case of the New York Clearinghouse Association**

The performance of the New York Clearinghouse Association (NYCHA) during the panic of 1907 is the best documented of any of the clearinghouses in the country. It was the first established and by 1907 it was the largest with over $1 billion in deposits at member banks (Wicker 2000, p. 83). Particular attention is also paid to the NYCHA because it was the first to respond to the outbreak of the panic.
On October 26, 1907 a meeting of the NYCHA was held to determine if the runs on the trust companies had created a need to issue clearinghouse loan certificates. It was decided at that meeting that a loan committee be established and the first loans were issued to member banks that same day (Cannon 1910, p. 118). While it may appear from Cannon’s account the NYCHA responded quickly to the panic others have expressed disappointment with the performance of the NYCHA. In 1907 there was serious competition between the national banks and the trust companies in New York. Since the National Banking Act was established in 1863, the national banks had enjoyed relatively little competition due to the greater prestige, the stricter laws under which they operated, because of the supervision by federal agents and they were actually safer than the state banks (Redlich 1968, p. 178). By the 1880’s trust companies had began to perform bank functions normally reserved for national banks. The national banks were opposed to this because they felt they could not compete with the trust companies due to the higher reserve requirements they faced. The benefit of stricter laws noted by Redlich had become a cost. The trust companies not being burdened by the reserve requirements of the National Banking Act would operate with lower reserves this allowing them to lend more funds to the public. The consumers responded such that by 1900 the national banks felt they had a serious “trust company problem on hand” (Redlich 1968, p. 178).

The national banks tried various ways to level the playing field with the trust companies. In 1904 the national banks were successful in persuading the NYCHA to pass a rule that required all members to hold as much reserves as the national bank members. Trust companies would now be required to hold 10-15% reserves compared to the 5% they had held before (Moen and Tallman 1995, pp. 3-4). The trust companies, feeling unfairly treated, responded by ending their membership with the NYCHA.

So even though the clearinghouse responded to the panic in October of 1907 their aid was limited to their member banks that did not include the trust companies. As stated earlier, one of the central causes of the panic in 1907 were the bank runs experienced by the trust companies. The NYCHA was criticized for not responding earlier to the problems of the trust companies. Instead the NYCHA waited until the panic became a concern for its members and then responded. Sprague (1910, p. 257) makes the following critique, “Even though it would have been impossible to secure agreement among members of the clearinghouse to provide the trust companies with the assistance
they required, the immediate issue of loan certificates should have been authorized to meet the general situation. The failure to issue clearing-house loan certificates…was the most serious error made during the crisis.” Many felt that had the NYCHA acted a few days sooner they could have restored confidence in the banking as a whole and mitigated the opportunity for the run on the trust companies to become a panic for the entire country. Instead the trust companies were left to rely on the assistance of the private sector, namely from J.P. Morgan, to try to prevent the trusts from becoming insolvent.

When the NYCHA did respond it did so with the largest issue of clearinghouse loan certificates at that time. During the Panic of 1907 the NYCHA issued $101,060,000 worth of loan certificates. That is compared to $41,490,000 of certificates issued during the panic of 1893, a change of 143% (Andrew 1908b, p. 507). Unfortunately, this issuance was too late for some of the banks and trusts initially hit by the panic. Estimates by Wicker (2000, p. 86) show while 13 banks failed in New York during the month of October no other banks failed for the rest of the year. Cannon (1910, p. 119) also notes the first date of issue was October 26, 1907 and the date of the final cancellation was March 28, 1908. In a five month period the NYCHA issued and redeemed the largest use of clearinghouse loan certificates in American history. It is also noteworthy to point out that most of the currency issued was illegal. Andrew (1908b, pp. 515-16) estimated most of the emergency currency (small certificates, clearinghouse checks etc.) was illegal but no one thought of interfering because of the success the loans had in ending the panic.

The Case of the Chicago Clearinghouse Association

A question from this discussion is how did the experiences of the NYCHA parallel those of other clearinghouses in the country? Chicago, like other financial centers of the country, was watching the events unfold in NYC in late 1907. In October when the NYCHA approved the issuance of clearinghouse loan certificates the Chicago Clearinghouse Association (CCHA) met on the same day and also approved the use of loan certificates. This was a significant step for the CCHA because it was the first time the members had agreed to issue this type of cash substitute (Cannon 1910, p. 121). On November 6, 1907 the CCHA met again and approved the use of another type of cash substitute—the clearinghouse checks (Cannon 1910, p. 121). The purpose of the checks
was for general circulation, not for the settlement of balances for banks at the clearinghouse. These checks were issued in amounts ranging from one dollar to ten dollars and were payable only through the clearinghouse. The date of first issue was October 28, 1907 and the date of final cancellation was January 17, 1908. The maximum outstanding at one time was $39,240,000 (Cannon 1910, p. 123). In approximately three months, two months earlier than NYCHA, the CCHA was able to issue and redeem all the loan certificates. Also unlike the NYCHA no banks or trusts failed in Chicago (Moen and Tallman 1995, p. 5).

The relationship the CCHA had with the banks and trusts of Chicago are key to understanding why the CCHA was so successful in preventing any failures. Unlike New York in the early 1900’s there was no competition between the trust companies and national banks. To understand why we need to examine an important event that occurred prior to 1907: The bank run of 1905. Redlich (1968, pp. 284-86) and Moen and Tallman (1995, pp. 6-7) provide a history of this run. Three banks controlled by John Walsh failed in 1905: The Chicago National Bank, the Home Savings Bank and the Equitable Trust Company. Even though the losses incurred from the closing of these banks would be a great burden for depositors and potentially to themselves many other bankers in Chicago did not want to assist these banks at all. James Forgan, the head of the CCHA, realized the true cost of these banks failing when he recognized that a failure of one bank could trigger a run on others. Forgan developed a plan to assist the Walsh banks. Under this plan, the members of the CCHA would bear the cost of the bank failures by absorbing the losses of the Walsh banks. This was specifically accomplished by the CCHA guaranteeing payment on deposits at the Walsh banks (Moen and Tallman 1995, p. 7). Against much opposition from the bankers in Chicago Forgan was able to approve his plan. Forgan’s recognition of the interdependence of banks was summarized by White (1983, p. 80) “If the banks failed to recognize their interdependence and each tried to safeguard their own positions they would be unable to prevent a crisis.” The result of this action was a general relief from the potential anxiety of many banks simply failing in one area. This example of cooperation laid the foundation for the policies of the CCHA during future panics. The CCHA understanding of the interdependence of the banks allowed it to avoid the failure of any banks during the panic of 1907.
The case of other Clearinghouse Associations

Unfortunately, repeated attempts to find literature on other clearinghouses has met with limited success. As others have noted, finding information for clearinghouses other than New York and Chicago is a formidable task (Wicker 2000, p. 1). Nevertheless an attempt will be made to at least note the performance of other clearinghouses during the Panic of 1907 and what the potential success they may have had.

In 1909, Elmer Youngman published two articles in the Banker’s Magazine that describe the experiences of St. Louis and Pittsburgh during the Panic of 1907. Like Chicago, the panic of 1907 was the first time the clearinghouse in St. Louis had ever issued cash substitutes and, also like Chicago, no banks failed (Youngman 1909b, p.176). Youngman attributes this success to the excellent business environment in the city of St. Louis. In his article, Youngman goes as far as to compare the environments of St. Louis and New York calling the St. Louis banker cordial and the New York banker icy (Youngman 1909b, p. 179). Unfortunately, the article does not describe exactly why there exists such a dramatically different style of business between New York and St. Louis. Like St. Louis, there were no bank failures in Pittsburgh during the panic. Youngman also attributes the success of Pittsburgh to the favorable condition of the banking industry: “by standing together the banks and trust companies came through the financial disturbance of 1907 in safety.” (Youngman 1909a, p.1).

A study conducted by Andrew (1908b) found of the 145 largest cities 71 (almost half) experienced the use of loan certificates, clearinghouse checks, or other form of cash substitute. Table 1 below lists some of the various cities.

Table 1: Dollar ($) value of cash substitutes used in the Panic of 1893 and 1907 from various cities

<table>
<thead>
<tr>
<th>City</th>
<th>$ Value of Substitutes Issued 1893</th>
<th>$ Value of Substitutes Issued 1907</th>
<th>Percentage Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York City</td>
<td>$41,490,000</td>
<td>$101,060,000</td>
<td>143%</td>
</tr>
<tr>
<td>Boston</td>
<td>11,645,000</td>
<td>12,595,000</td>
<td>8%</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>11,000,000</td>
<td>13,695,000</td>
<td>25%</td>
</tr>
</tbody>
</table>
Cannon (1910, pp 123-29) gives specifics on the timing of the issuances of these substitutes. The Boston Clearinghouse Association (BCHA) appointed a committee at the end of October. The first issuance occurred on October 28, 1907 and the final cancellation occurred January 24, 1908 approximately the same turnover experienced in Chicago. The clearinghouse association of Philadelphia (PCHA) was one of the last clearinghouses to respond according to Cannon. The clearinghouse did not appoint a committee or issue its first cash substitute until November 16, 1907. Specifics to explain why the PCHA delayed its action have not been obtained. Table 1 indicates that the clearinghouses in the US responded in dramatic fashion in 1907 but how successful were they in preventing bank failures from occurring? Without the use of city specific data it is difficult to know precisely how successful each clearinghouse was however we can draw a general comparison by looking at data from 1893 and 1907. Wicker (2000) attempted to show the relative successes of the clearinghouses during the panics of the National Banking Era. Wicker was able to find regional data to compare the relative successes of the clearinghouses. Tables 2 and 3 summarize his results.

**Table 2:** Number of suspended banks for various classifications of banks, May-August 1893 and October-December 1907

<table>
<thead>
<tr>
<th>Bank Type</th>
<th>Number of Suspended Banks 1893</th>
<th>Number of Suspended Banks 1907</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>142</td>
<td>11</td>
</tr>
<tr>
<td>State</td>
<td>149</td>
<td>33</td>
</tr>
<tr>
<td>Savings</td>
<td>41</td>
<td>4</td>
</tr>
<tr>
<td>Private</td>
<td>157</td>
<td>10</td>
</tr>
<tr>
<td>Loan and Trust</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>503</td>
<td>73</td>
</tr>
</tbody>
</table>


**Table 3:** Number of suspended banks by region, May-August 1893 and October-December 1907

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of Suspended Banks 1893</th>
<th>Number of Suspended Banks 1907</th>
</tr>
</thead>
</table>

Source: Andrew (1908b)
Middle Atlantic | 34 | 18
Western       | 188 | 29
Northwestern  | 137 | 2
Southern      | 67  | 8
Pacific       | 68  | 11
Territories: Northeast | 9  | 5
Total         | 503 | 73


Tables 2 and 3 show both by bank type and by region that the number of bank failures was significantly less in 1907 than in 1893.

While we have no hard evidence to show exactly what happened in other clearinghouse associations it seems apparent from the information from Wicker and Andrew the issuances of cash substitutes by most of the clearinghouses in the country had a significant role in reducing the number of bank suspensions in 1907. It can be further inferred from Cannon, that many of the clearinghouses took action at almost the same time and in some cases meeting and forming a loan committee on the very same day. It is no wonder the National Monetary Commission analyzed the performance of the clearinghouses when deciding how to structure the Federal Reserve System.

**Summary**

The performance and experiences of the clearinghouse during the Panic of 1907 varied from city to city and from region to region. The clearinghouse itself underwent yet another dramatic change in it evolution as a lender of last resort. For some 1907 was the first time their respective clearinghouse had ever issued cash substitutes. It is difficult to draw an exact comparison between the different clearinghouses for many reasons but the overall performance compared to the previous panic in 1893 demonstrates what the clearinghouses were capable of doing in providing much needed stability in the financial markets.
References


