Variability of Bank Discount Rates Measured

Cost of Money in 34 Representative Cities Over Five Year Period Analyzed

Boston Has Lowest Average Rate; Jacksonville the Widest Swings

Wide regional differences in the rates of discount prevailing in American cities at any given time, and resulting differences in the monthly variability of these discount rates, are shown in a survey just completed by Dr. Frederick C. Mills, of the National Bureau of Economic Research.

In addition to computing the averages of the discount rates in each city and measuring their variability, Dr. Mills has also constructed what is believed to be the best map of regional differences in discount rates. In general, this index shows that when average rates are rising, differences between rates prevailing in different parts of the country tend to become less noticeable. In periods of falling rates, regional differences become more pronounced.

Boston was the cheapest market for borrowers with an average discount rate during the last five years of 4.77 per cent. Jacksonville had the most variable rate, the degree of fluctuation being six times as great as that in Nashville, where rates were most stable.

Philadelphia with an average discount rate of 4.95 per cent was second to Boston in cheapness of money, St. Louis with an average of 4.96 was third, and New York with an average rate of 5.01 was fourth.

Of the 34 cities listed, only 5 exceeded New York in the variability of their discount rates.

(continued on page 37)

"BUSINESS CYCLES" COMES OFF THE PRESS

The first copies of Dr. Wesley C. Mitchell’s long awaited treatise on BUSINESS CYCLES: THE PROBLEM AND ITS SETTING have just come from the National Bureau’s contributing subscribers.

This volume of more than 800 pages gives the latest and most authoritative information available today on the subject of business cycles. It is the first book on business cycles by Dr. Mitchell since the publication of his pioneer work in 1913.

In this new book, Dr. Mitchell explains the numerous processes involved in business cycles, shows how our present economic organization has evolved, describes how to use statistics in the study of business cycles and how to use business annals; and finally combines the insights derived from business annals, statistical research, and statistical research into a working concept of business cycles.
The large cities of the northeast have the lowest rates, while the highest rates are found in cities of the west and south. Although there is no sharp geographical division, the following grouping reveals certain broad differences between regions:

**Group**
- Cities of the Middle Atlantic and Northeast (Boston, Philadelphia, New York, Buffalo) 5.12
- Cities of the Upper Mississippi (St. Louis, Chicago, Minneapolis, Detroit, Pittsburgh, Cincinnati, Cleveland) 5.40
- Cities of the South (Baltimore, Richmond, Atlanta, New Orleans, Louisville, Birmingham, Jacksonvillle, Nashville) 5.86
- Cities of the Pacific Coast (San Francisco, Portland, Seattle, Los Angeles, Spokane) 6.12
- Cities of the Western Plains and Rocky Mountains (Kansas City, Omaha, Denver, Salt Lake City, Helena) 6.32
- Cities of the Southwest (Dallas, Houston, Little Rock, Oklahoma City, El Paso) 6.35

**Comparison of Cities**
The magnitude of the regional differences is indicated by the following table, in which is shown the average rate for each of the four years during the five year period 1922-1926.

<table>
<thead>
<tr>
<th>City</th>
<th>Average Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boston</td>
<td>4.65</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>4.95</td>
</tr>
<tr>
<td>St. Louis</td>
<td>4.69</td>
</tr>
<tr>
<td>New York</td>
<td>4.96</td>
</tr>
<tr>
<td>Chicago</td>
<td>5.01</td>
</tr>
<tr>
<td>Minneapolis</td>
<td>5.18</td>
</tr>
<tr>
<td>Cleveland</td>
<td>5.20</td>
</tr>
<tr>
<td>San Francisco</td>
<td>5.40</td>
</tr>
<tr>
<td>Dallas</td>
<td>5.44</td>
</tr>
<tr>
<td>Memphis</td>
<td>5.48</td>
</tr>
<tr>
<td>Pittsburgh</td>
<td>5.65</td>
</tr>
<tr>
<td>Milwaukee</td>
<td>5.72</td>
</tr>
<tr>
<td>Cincinnati</td>
<td>5.72</td>
</tr>
<tr>
<td>Columbus</td>
<td>5.77</td>
</tr>
<tr>
<td>St. Louis</td>
<td>5.79</td>
</tr>
<tr>
<td>Detroit</td>
<td>6.02</td>
</tr>
<tr>
<td>Indianapolis</td>
<td>6.14</td>
</tr>
<tr>
<td>Little Rock</td>
<td>6.35</td>
</tr>
<tr>
<td>Portland, Ore.</td>
<td>6.56</td>
</tr>
<tr>
<td>Seattle</td>
<td>6.63</td>
</tr>
<tr>
<td>Salt Lake City</td>
<td>6.88</td>
</tr>
<tr>
<td>Little Rock</td>
<td>6.88</td>
</tr>
<tr>
<td>Dallas</td>
<td>6.93</td>
</tr>
<tr>
<td>Oklahoma City</td>
<td>7.08</td>
</tr>
<tr>
<td>El Paso</td>
<td>7.21</td>
</tr>
<tr>
<td>Houston</td>
<td>7.35</td>
</tr>
</tbody>
</table>

**Variability of Discount Rates**

Not only do discount rates differ materially from city to city in absolute magnitude, but they differ as well in the respect of variability (that is, in the degree to which they fluctuate from month to month). Variation within each calendar year has been measured as the percentage of the average rates, expressed as a percentage of the annual average. These measures, averaged for each city for the five years 1922 to 1926, are shown in Table 2.

**Table 2**

<table>
<thead>
<tr>
<th>City</th>
<th>Measure of Variability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nashville</td>
<td>0.99</td>
</tr>
<tr>
<td>Detroit</td>
<td>2.28</td>
</tr>
<tr>
<td>St. Louis</td>
<td>2.28</td>
</tr>
<tr>
<td>Milwaukee</td>
<td>2.28</td>
</tr>
<tr>
<td>Cleveland</td>
<td>2.28</td>
</tr>
<tr>
<td>Little Rock</td>
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<tr>
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<td>2.28</td>
</tr>
<tr>
<td>El Paso</td>
<td>2.28</td>
</tr>
<tr>
<td>Houston</td>
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</tr>
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<td>El Paso</td>
<td>2.28</td>
</tr>
</tbody>
</table>

These figures are graphically depicted in the bar diagram on Page 1 of this Bulletin. Differences between cities in respect to the stability of discount rates are much greater than are the differences between states. The rates from the lowest to the highest extend from .59 to 6.11. Rates were most rigid in Nashville, St. Louis, Kansas City, Oklahoma City, and Cleveland. These five cities had average rates which were less than one half of the average rate for the country. The variability of rates is greatest in New York City, Philadelphia, and Chicago. The rates in these cities fluctuated more than in any other city, and the fluctuation was more frequent. The rates in these cities were more affected by the weather and other influences than were the rates in the smaller cities.

The relationships between cities and between the various groups of cities distinguished on Page 2 represent variations in the degree of commercial development and business stability, differences in the amount of available credit and differences in the intensity of the demand for capital and credit, as well as variations in local business conditions and business habits.

The data utilized in computing these averages and in preparing the other measures described above are the records compiled by the Federal Reserve Board and published monthly in the Federal Reserve Bulletin. They relate to customers’ prime commercial loans. The original rates, as quoted for individual cities, are net averages, but are the rates at which the bulk of the loans of this class are made by reporting banks. Where the reported rates are given, the average rate in each city is low to high, and this average of these limits has been taken. The Federal Reserve Board’s reports show that some changes have been made from time to time in the method of reporting rates, but it does not appear that these have seriously affected the comparability of the rates for different periods. The compilation of cities, however, in respect to discount rates must be made with some reservations, because of the difficulty of securing fully comparable returns. Significance should not be attached, therefore, to minor differences between cities.

*These differences are computed from the data published in Table 1.*

**Figure**

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