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RETAIL TRADE BY FEDERAL RESERVE DISTRICT, 1919 TO 1939: A STATISTICAL HISTORY

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ABSTRACT

Soon after beginning operations, the Federal Reserve established a nationwide network for collecting information about the economy. In 1919, the Fed began tabulating data by about retail sales, which it viewed as a fundamental measure of consumption. From 1920 until 1929, the Federal Reserve published data about retail sales each month by Federal Reserve district, but ceased to do so after 1929. It continued to compile monthly data on retail sales by reserve district, but this data remained in house. We collected these in-house reports from the archives of the Board of Governors and constructed a consistent series on retail trade at the district level. The new series enhances our understanding of economic trends during the Roaring „20s and Great Depression.

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Introduction

The United States' experiment with regional central banks from 1913 to 1935 provides an opportunity to study monetary and fiscal policies in an environment similar to that which exists in the European Union today. Federal Reserve districts possessed a common currency, a trade union, and intertwined monetary policies. Fiscal policies were set by the governments of states, whose constitutions typically required balanced budgets. Recent research shows that differences among districts can help to identify relationships – such as impact of discount lending during banking panics – that economists have trouble identifying with recent data (Richardson and Troost 2009). The only constraint on such studies is the lack of data. Few data series exist at the Federal-Reserve-district level. National income accounts for the United States begin in 1929. So do many other statistical series of interest to economics.

This essay begins to fill that lacuna in the literature. It presents new data on retail trade for the United States as a whole and for each Federal Reserve district. This task involves the construction of several subsidiary data series: a series on retail trade each month in each Federal Reserve district, a seasonally adjusted version of that monthly series, annual population estimates for each district, and annual growth in per capita retail trade in each district.

Constructing these series involves tackling a number of statistical issues. The issues include seasonally adjusting monthly series, merging series with different base years, merging series reported in different metrics (such as index values and percentage changes), estimating populations for Federal Reserve districts by summing estimates made at the county level, converting monthly into annual series, and calculating per capita growth from changes in index values and population levels.

Another statistical issue is the difference between the data as initially reported and the data after subsequent revisions. The initial series represents the information available to agents at the time they make decisions. Throughout our essay, we refer to this series as "initial data" or "initial reports." The final series indicates the actual state of the economy. Throughout our essay, we refer to this series as the "final data," "final reports," or "final data series." The former and the latter often differ. Statistical agencies, such as the Federal Reserve, release data about the economy, such as retail trade reports, on a regular schedule. Sometimes on the day of release, they lack accurate or complete information. After the initial release, they update reports, correct errors, incorporate additional information, and revise previous estimates. For data on retail trade, the Federal Reserve routinely released updates. Some of these revisions were significant, particularly from 1919 through 1923, when the series underwent large revisions, in part because the Federal Reserve realized that its data reporting system provided erroneous information about the state of the economy from 1919, when the lifting of wartime restrictions resulted in a consumption boom, to 1921, when a recession beset all Federal Reserve districts.[1]

The rest of this essay accomplishes these tasks. Section 2 describes the data sources. Section 3 describes the methods that we use to calculate our statistical series. Section 4 compares retail trade across the Federal Reserve districts. Section 5 compares patterns in growth rates of retail trade. Section 6 compares patterns in growth rates of per capita retail trade. Section 7 compares retail trade during the NBER business cycles. Section 8 studies growth rates of population. Section 9 examines the seasonal consumption cycle. Section 10 examines differences between the initial and final data series. Section 11 concludes.

[1] Orphanides (2001) emphasizes the difference between initial and final data.

2. Data Sources

Determining retail sales per capita requires data on retail trade and population. Data on retail trade comes from two sources. The first is the *Federal Reserve Bulletin*, a monthly publication of the Federal Reserve Board containing detailed information about the United States economy, financial markets, and the behavior of the central bank. The second is "Department Store Sales Preliminary Reports," a monthly internal memorandum produced by the Federal Reserve Board. This unpublished material resides in the research library of the Board of Governors.[2]

In 1919, the Federal Reserve Board began to develop an index of retail trade. The project involved obtaining information about monthly sales "from department stores of representative character throughout the country (*Federal Reserve Bulletin*, January 1920, p. 53)." Department stores were defined as large shops selling many different kinds of articles at different sales counters and commonly known as department stores in their respective cities. The sample included the nation's largest mail-order houses and five-and-ten-cent chains. The sample excluded "specialized retail stores and large apparel stores, even if these establishments reported regularly and voluntarily to the reserve system (Federal Reserve Bulletin, February 1928, p. 115)."

In February 1920, the *Federal Reserve Bulletin* published an initial index for the Twelfth District based on reports from twenty-nine establishments. The number of stores increased over time. Within a few months, the number of reporting establishments rose to over 300. In October 1920, the *Federal Reserve Bulletin* for the first time published information on retail sales in all twelve Federal Reserve districts. The data described the month of August 1920. In December

[2] Note that the *Federal Reserve Bulletin* and the Federal Reserve's Preliminary Reports use the terms "retail trade," "retail sales," and "department store sales" as synonyms.

1924, 374 establishments reported monthly sales, including all of the nation's largest department stores, mail-order houses, and five-and-ten-cent chains. In June 1925, the number rose to 523. In February 1928, the number rose to 565. Reported sales exceeded $2,000,000,000, or approximately 36 percent of total sales of all department stores in the nation. These reporting establishments operated in 253 cities. In most of these cities, "stores reporting monthly to the Federal Reserve banks (made) up at least two-thirds of the sales of all department stores (*Federal Reserve Bulletin*, February 1929 p. 115)." Stores located in cities with a population exceeding 500,000 accounted for approximately 55 percent of the sales of all reporting stores. Stores located in cities with populations between 100,000 and 500,000 accounted for 32 percent of total sales. Information concerning city size and sales reports appears in Table 1.

Information on sales was "reported by the cooperating stores to the Federal reserve banks in each of the 12 Federal reserve districts, which in turn (sent the information) to the Federal Reserve Board, where a retail report covering the entire United States (was) compiled and published (Federal Reserve Bulletin, July 1925, p. 474)". Retail establishments submitted information on sales on the sixth day of each month. After collating reports from every store in its district, "the Federal reserve bank telegraph(ed) the total dollar sales for all stores to the Federal Reserve Board, where the sales from all reserve districts (were compiled). The combined report for the United States (was) telegraphed to each Federal reserve bank on the eighth of the month and a national report (was) prepared and sent to the reporting stores and published on the tenth of the month (*Federal Reserve Bulletin*, July 1925, pp. 474-475)."

The Federal Reserve guaranteed anonymity to the firms that reported. To protect proprietary information, the Federal Reserve disseminated data on retail sales as an index indicating the amount in a base period and percentage changes from that base. The Federal

Reserve periodically changed the base and the way in which it reported the data. In January 1920, the initial base was the average value of monthly sales for each Federal Reserve district in 1918, and the series reported percentage changes from that base, but not the index itself. In March 1923, the *Federal Reserve Bulletin* began publishing the indices of retail sales, with a base year of 1919, as well as the changes from the preceding month. In February 1928, a revision set the base of 100 to be average retail sales in a district from 1923 to 1925. Tables presented the entire series up to that point in time with the new and the old (1919) base. The revision also adjusted the series for variations in the number of business days per month, due to phenomena such as leap years, holidays, the changing date of Easter, and the rotation of week days through the annual calendar. The *Federal Reserve Bulletin* for February 1928 reported revised data for January 1919 through December 1927. According to the Bulletin, this series "supersede(d) the old indexes that have been published up to the present time. These new indexes are based upon data reported by a larger number of stores, more widely distributed, and have a broader and more recent base period."[3] The *Bulletin* continued to report data in this format for two and a half years.

The 1928 revision also added a substantial amount of historical information. This information included new series for the St. Louis district back to 1921 and Kansas City district back to 1924. The series for Chicago was also completely revised going back to 1921. Chicago revision appears to have been facilitated by the receipt of copious amounts of historical information from retail stores throughout the Seventh District. This information allowed the size of the sample to be expanded and its coverage to be more representative.[4]

[3] *Federal Reserve Bulletin*, March 1928, p. 114.
[4] *Federal Reserve Bulletin*, February 1928, p.115.

Unfortunately, in August 1930, the *Bulletin* stopped publishing data on retail sales by district. From then on, the *Bulletin* only published the index for the entire United States. Thereafter, district-level retail-sales data appears only in the Federal Reserve Board's preliminary reports on retail sales. This internal memorandum reported percentage changes in retail sales in each district in each month compared with the same period of the previous year. Copies of this internal memo survive in the research library of the Federal Reserve Board of Governors for the months December 1924 through January 1940.

Data on population comes from two sources. The first is the *United States Census of Population* for the years 1920, 1930, and 1940. In 1920, the Census determined where individuals resided on January 1 of that year. In 1930 and 1940, the Census determined where individuals resided on April 1. For all three decades, the Census tabulated the number of individuals residing in each county. Computerized county-level tabulations come from the ICPSR.[5] The second source is "Population Estimates, 1900 to 1950, " which estimates the population of each state on July 1 of each year from data on migration, births, and deaths.[6]

3. Methods for Constructing Statistical Series

Converting the raw evidence of retail trade into useful statistical series involves several steps. The first is determining the level of retail trade in each month relative to a base period. The second is adjusting the monthly series for seasonal variations. The third is calculating the rate of growth for retail trade at an annual frequency. The fourth is calculating the rate of growth of the population. The fifth is calculating the rate of growth of retail sales *per capita*, by adjusting sales growth to account for population growth.

3.1. Retail Trade: Initial and Final Data

[5] Interuniversity Consortium for Political and Social Research (ICPSR) Study # 3.
[6] *Current Population Reports Series* P25-139**.**

The Federal Reserve routinely released updates of information on retail sales. The structure of the table in the *Federal Reserve Bulletin* facilitated these updates. The table included information from the latest month available, the previous month, and the same month in the preceding year. For example, the *Federal Reserve Bulletin*'s issue for October 1930 contains retail sales figures for August and July 1930 and August 1929. On several occasions, the Federal Reserve recapitulated all previously published data. These recapitulations brought all of the previously published data up to the current standard.

Our essay reports both the final and initial data series. The final data series is constructed by examining the *Federal Reserve Bulletin* for 1930 and working backwards through the issues in reverse chronological order. This process yields the final series for the entire United States for the years 1919 to 1939 and for the twelve Federal Reserve districts for the period from 1919 until August 1930. Data for the Federal Reserve districts for the years 1929, 1928, and 1927 comes from latest issues in which the information appears (i.e. the first issue in which it is found in reverse chronological order). Data for years prior to 1927 comes from the February 1928 issue, which contained a table of revisions stretching from 1926 back to the beginning of the series.

For years 1930 to 1939, district-level data comes from the Federal Reserve's unpublished *Preliminary Report*. The reports are processed using the procedures employed on the *Federal Reserve Bulletin*. We begin with the latest memorandum and work backwards through the series, finding final revisions of monthly data and incorporating them into our series. The information in the *Preliminary Report* differs from that in the *Bulletin* in an important respect. The *Preliminary Report* indicates the percentage change of retail sales from the same month in the preceding year. Fortuitously, the Preliminary Reports and the Bulletin overlap for a period sufficient to extend the retail trade indices until 1939. The results of our endeavor appear in Table 2.

Reversing our procedure for constructing the final index yields information about initial reports. We begin with the earliest issue of the *Bulletin*, work through the issues in chronological order, and record the first report of retail trade for each month. The initial data appears in several formats, such as changes from the previous month, index values with the base set as the average value in 1919, and index values with the base set as the average value from 1923 to 1925. We standardize this information, and report all initial figures as index values with the base set as the average value from 1923 to 1925, so that the initial reports can be compared to the final data series, which are reported in the same metric. The results of this endeavor appear in Table 3.

Lacunae appear in some of the series for initial reports. These blank spots indicate that the Federal Reserve bulletin did not initially report information for some districts when it presented information for the rest. For example, at various times and for various reasons, the Federal Reserve failed to report initial figures for Cleveland, Chicago, Kansas City, and St. Louis.

3.2 Seasonal Adjustment

Seasonal movements exist in many statistical series, including retail sales. Heating-oil sales surge during the winter. Cooling-fan sales surge during the summer. Consumption peaks every year during December. The obvious explanation is Christmas. These seasonal movements obscure economic trends, cyclical fluctuations, and turning points in time series. So, economists typically remove these seasonal variations. During the 1920s, the Federal Reserve published seasonally adjusted retail trade series as well as seasonally unadjusted data. In 1928, the Federal Reserve described its methods for adjusting for cyclical fluctuations, but on many occasions, the

Federal Reserve's methods were opaque.[7] Therefore, we adjust the raw data for seasonal fluctuations using modern techniques. The cutting-edge techniques come from the Census Bureau. The Bureau's X-12 ARIMA algorithm estimates seasonal, trend, and irregular components of time series using regression models with ARIMA errors, symmetric moving averages, a moving seasonality ratio, and after accounting for outlier and calendar effects. We do this using the X-12 ARIMA function in the EVIEWS statistical package. We report the final data series adjusted for seasonal fluctuations in Table 4 and seasonal component in Table 5.

3.3 Annual Growth Rates

Economists have many options when converting monthly data to annual growth rates. Potential methods include

a. Calculating the annual average for the monthly series and then the growth of this average from one year to the next.
b. Calculating the annual median for the monthly series and then this median's growth from one year to the next.
c. Calculating the growth rate for each month from the same month in the previous year, and then averaging these growth rates.
d. Picking one month out of the year – perhaps the first month (January), a middle month (July), the peak month (December), or the last month (also December) – then calculating the growth rate between that month and the same month in the previous year.

We calculate the annual growth rate using all of these methods, and then compared the results.

Figure 1 displays the outcome of this exercise. The dashed line indicates the growth of retail sales in the month indicated from the same month in the previous year. The other symbols indicate the annual growth rate calculated by the method indicated in the key. The square, for

[7] *Federal Reserve Bulletin*, March 1928, p. 240.

example, indicates the annual growth rate approximated by the growth from December in one year to December in the next. The lightest horizontal line indicates the annual median of the month to month growth rates. The darkest horizontal line indicates the annual average of the month to month growth rates. In almost all cases, the latter line lies at a point almost identical to the line indicating the growth rate of the annual average of the monthly indices. These lines also closely approximate the growth in retail trade between July in one year and July in the previous year. Since we measure population during July and calculate population growth rates between this July and the previous July, we choose to use the annual average of the month to month growth rates as our measure of the annual growth of retail sales. The results of this exercise appear in Table 6.

Scholars who use our data for macroeconomic studies may make different decisions about how to calculate the growth rate. Scholars should ensure that their measure of the retail-sales growth rate should be consistent with other decisions that they make concerning aggregating, averaging, and differentiating data series.

3.4 Population and Population Growth

Calculating the population of Federal Reserve districts requires extrapolating from census data sets. The Census Bureau enumerated the population of the United States in the years 1910, 1920, 1930, and 1940, but in those years, enumerations occurred on different dates. Between those years, the Census did not enumerate populations. The Census did, however, estimate the population of all states on July 1st of each year. The population on July 1st is useful information, because it enables us to accurately estimate the annual growth rate of the population and of retail sales per capita. So, we base our series of population in Federal Reserve districts on the Census Bureau's estimates of state populations on July 1st.

The geography of Federal Reserve districts complicates these calculations. Federal Reserve districts frequently contained fractions of states. The 6th (Atlanta) District, for example, contained all of Alabama, Florida, Georgia, and portions of Tennessee, Mississippi, and Louisiana. The 2nd (New York) District contained all of New York and portions of Connecticut and New Jersey.

To calculate the population of a Federal Reserve district, we sum the population of the states and the portions of states that the district contains. We calculate the fraction of a state's population lying within a Federal Reserve district by summing the populations of the counties within the district and dividing by the total population of the state.[8] This procedure works because Federal Reserve districts contain groups of contiguous counties, and because counties were never split between Federal Reserve districts. Data on the population of counties exists only during the census years of 1910, 1920, 1930, and 1940. Between these years, we assume that the fraction of the state's population with a Federal Reserve district changes linearly. Given these assumptions, the population of the i^{th} Federal Reserve district's population in year t is f_{it}

$$f_{it} = \begin{cases} \sum_{j \in I} s_{jt} \left[\left(p_{ij,1920}(t-1910)/10 \right) + \left(p_{ij,1910}(1920-t)/10 \right) \right] & if \quad t = 1919 \\ \sum_{j \in I} s_{jt} p_{ij,1920} & if \quad t = 1920 \\ \sum_{j \in I} s_{jt} \left[\left(p_{ij,1930}(t-1920)/10 \right) + \left(p_{ij,1920}(1930-t)/10 \right) \right] & if \quad t \in (1921, 1929) \\ \sum_{j \in I} s_{jt} p_{ij,1930} & if \quad t = 1930 \\ \sum_{j \in I} s_{jt} \left[\left(p_{ij,1940}(t-1930)/10 \right) + \left(p_{ij,1930}(1940-t)/10 \right) \right] & if \quad t \in (1931, 1939) \\ \sum_{j \in I} s_{jt} p_{ij,1940} & if \quad t = 1940 \end{cases}$$

Where s_{jt} indicates the population of state j in year t, as indicated in the Census Bureau's estimates of state populations on July 1st of each year. $j \, \varepsilon \, I$ indicates that state j lies within the i^{th}

[8] The annual reports of the Federal Reserve Board listed the name of counties in each district. Note that during the 1920s, counties in Alabama, California, Florida, Georgia, Idaho, South Dakota, North Dakota, Minnesota, Montana, and Texas split and formed new counties. During the 1930s, two counties in Georgia merged to form Fulton County.

Federal Reserve district. $p_{ij,1910}$ indicates the proportion of state *j* population lying within Federal Reserve district *i* in year 1910, as indicated in the census of 1910. $p_{ij,1920}$ indicates the proportion of state *j* population lying within Federal Reserve district *i* in year 1920, as indicated in the census of 1920. $p_{ij,1930}$ indicates the proportion of state *j* population lying within Federal Reserve district *i* in year 1930, as indicated in the census of 1930. $p_{ij,1940}$ indicates the proportion of state *j* population lying within Federal Reserve district *i* in year 1940, as indicated in the census of 1940. For the years 1910, 1920, 1930, and 1940, p_{ijt} equals the sum of all the counties in state *j* belonging to district *i* divided by the total population of the state. Note that if the state lies entirely within one Federal Reserve district, then p_{ijt} equals 1. Table 7 reports the population on July 1st for each Federal Reserve district.

The annual growth rate of the population of a Federal Reserve District is,

$$\dot{f}_{it} = \left(f_{it} - f_{i,t-1}\right) / f_{i,t-1}$$

for district *i* in year *t*. This growth rate indicates the rate of expansion of the population from July of the preceding year until July of the current year. Table 8 reports the annual growth rate of the population in each Federal Reserve district.

3.5 Growth in Per Capita Retail Trade

The Federal Reserve protected manufacturers' proprietary information by reporting retail sales as an index, rather than in dollar terms. Lack of information about the volume of sales prevents us from calculating the volume of retail trade per person. The growth rate of retail trade per person, however, can be calculated. The growth rate of per capita trade per year, g_t, is given by the following formula

$$
\begin{aligned}
g_t \;=\; (r_t \dot{/} f_t) \;&=\; \left(\left(\frac{r_t}{f_t}\right)-\left(\frac{r_{t-1}}{f_{t-1}}\right)\right)\Big/\left(\frac{r_{t-1}}{f_{t-1}}\right) \\
&=\; \left(\left(\frac{r_t}{r_{t-1}}\right)-\left(\frac{f_t}{f_{t-1}}\right)\right)\Big/\left(\frac{f_t}{f_{t-1}}\right) \\
&=\; \left(\left(\frac{r_t/b}{r_{t-1}/b}\right)-\left(\frac{f_t}{f_{t-1}}\right)\right)\Big/\left(\frac{f_t}{f_{t-1}}\right) \\
&=\; \left(\left(\frac{i_t}{i_{t-1}}\right)-\left(\frac{f_t}{f_{t-1}}\right)\right)\Big/\left(\frac{f_t}{f_{t-1}}\right) \\
&=\; \left[\left(\frac{i_t}{i_{t-1}}\right)\Big/\left(\frac{f_t}{f_{t-1}}\right)\right]-1
\end{aligned}
$$

where the volume of retail trade (in dollar terms), r_t, is unknown. The volume of retail trade in the base year (in dollar terms), b, is also unknown. But, the index of retail trade, i_t, which equals r_t / b_t, and the population, f_t, are known. Knowledge of i_t, f_t, and the relationship between those variables and g_t, enables us to calculate the growth rate of per capita retail trade. Table 8 reports the growth rate of per capita retail trade.

Section 4: Patterns in Levels of Retail Trade

Retail trade indices display striking patterns between 1919 and 1939, which Figure 2 illustrates. The figure plots the indices for all twelve Federal Reserve districts grouped into five regions. The North East contains the Boston (1), New York (2), and Philadelphia (3) districts. The Great Lakes contains the Cleveland (4) and Chicago (7) districts. The Great Plains contains the St. Louis (8), Minneapolis (9), Kansas City (10), and Dallas (11) districts. The Pacific contains the San Francisco (12) district.

Figure 2 reveals several patterns common across the series. In 1919, consumption appears suppressed. A plausible explanation is the First World War. The armistice halted combat in November 1918. The Treaty of Versailles officially ended the war in June 1919. Wartime rationing ceased earlier that year. It took many months to shift resources from wartime

employment back to civilian uses, for soldiers to return home, and for peacetime patterns of consumption to reemerge. In 1921, consumption fell across the board, in all months in all regions, as the economy suffered from a severe but short recession. From 1922 to 1928, consumption increased steadily. The peak for most districts occurred during the 1920s. The peak for the United States as a whole occurred in 1928. From 1929 to 1932, consumption declined rapidly. In 1933, the decline ended. In 1934, the recovery began. Recovery continued throughout the 1930s, with a brief and mild hiatus during the double-dip recession in 1937 and 1938. At the end of the decade, however, consumption in most districts had not returned to the peak experienced during the Roaring 20s. The exception was the South, where consumption in 1939 exceeded levels that it had reached in the past.

A series of tables and figures illuminates these patterns in detail. Table 9's top half provides summary statistics for retail trade in the twelve Federal Reserve districts and the United States as a whole. The table indicates the maximum value of the index and the year in which the maximum occurred. All maxima occurred in the month of December. The maximum for most districts occurred during the 1920s. The maximum for Richmond, Atlanta, and Dallas, however, occurred during 1939. The table also indicates the minimum value. The minimum occurred either during the summer (July) or the winter (January, February, and March). The minimum for all districts occurred during 1932 or 1933.

Table 10's bottom half provides the same statistics for the seasonally adjusted indices. Now, the month of the maxima vary. The United States as a whole reached the maximum twice, in August of 1927 and 1929. The maximum for Atlanta remains in the year 1939. The maxima for Richmond and Dallas, however, shift to March 1937 and August 1926. The minima of the seasonally adjusted series clearly cluster at the trough of the contraction. For Boston and New

York, the minimum occurred in January 1933. For all other districts, the minimum occurred in March 1933.

Table 11's top half indicates the correlation coefficients between the series for each Federal Reserve districts and for the United States as a whole. Boxes enclose correlation coefficients less than 0.70. All of the series are highly correlated. The correlation between the United States and four of the series – Boston, New York, Chicago, and Kansas City – equals 0.97. Kansas City appears to be the district which is most correlated with other districts, with New York and Boston as close seconds. Minneapolis appears to be the least correlated with other districts. Its correlation with the United States is the only one approaching 0.8. Minneapolis is also the only series with correlation coefficient relative to another district of less than 0.7.

The overall patterns of correlation appear to be what one would expect given the economic realities of the United States circa 1929. The financial centers of New York and Chicago are highly correlated. So are the grain-growing regions of Minneapolis, Kansas City, and St. Louis; and the southern regions of Dallas, Atlanta, and Richmond; and the Great Lakes industrial regions of Cleveland and Chicago.

Table 11's bottom half displays the correlation between seasonally adjusted indices. Extracting the seasonal cycle reduces the correlation across the series, obviously, because the series shared a common seasonal component. All of the series, for example, experienced a boom during December (Christmas) and a bust afterwards. Minneapolis remains the least correlated district. Its coefficient of correlation with the United States is just 0.65. The southern region (5, 6, 11) also has a relatively low correlation with the United States. The average coefficient is just 0.76. This coefficient is small, considering that the coefficients of correlation between the United States and other districts are over 0.9.

The patterns in Tables 10 and 11 inspired the groupings that we use when displaying our data. We grouped into regions districts that were (a) highly correlated in Table 11, (b) shared years of maxima and minima in Table 10, and (c) had a common concentration in a particular economic sector, such as agriculture or industry.

Figure 3 illustrates an important pattern. Figure 3(a) plots the indices of four regions divided by the index of the southern region. The dots in the figure indicate this ratio for each month for each district. The lines in the figure indicate a twelve-month moving average of these monthly observations. Figure 3(b) plots the same ratio with seasonally-adjusted data. No matter how you look at the data, the pattern is clear. Consumption in the south rose relative to all other regions. The rise began in 1925 relative to the Great Plains; in 1929 relative to the Great Lakes, and in 1933 relative to the North East. By the end of the 1930s, consumption in the South had risen over 20 percent relative to the national average.

Section 5: Patterns in Growth Rates of Retail Trade

Table 12 summarizes growth rates of retail trade at the district level. Rows (1) to (6) present average growth rates for years indicated. Splitting the 1930s into two periods illuminates the severity of the contraction and rapidity of the recovery. Rows (7) to (9) present standard deviations for the periods 1919 to 1939, the 1920s, and the 1930s. Rows (10) to (11) indicate the maximum and minimum growth rates of retail trade for the districts and the U.S. as a whole and the years of occurrences.

Retail trade for the U.S. grew at an average annual rate of 1.43 percent from 1919 to 1939. In the 1920s, the annual growth rate averaged 1.19 percent. Average growth rates were positive in all districts except for Minneapolis and Kansas City. In the 1930s, the annual growth

rate averaged -0.69 percent. Average growth rates were negative except for Cleveland, Richmond, Atlanta, Chicago, and Dallas.

Growth rates varied during the 1930s. The decade began with a tremendous contraction. From 1930 to 1933, retail trade declined on average 12.5 percent. Cleveland, Chicago, and San Francisco performed much worse than the rest of the nation. In all three districts, retail sales declined more than 13 percent per year. From 1933 to 1939, consumption in the United States expanded by 5.21 percent per year. Consumption grew most rapidly in Atlanta, Dallas, Chicago and Cleveland.

Rows (7) to (9) indicate standard deviations. The standard deviations reveal the volatility of growth varied across districts. From 1919 to 1939, the standard deviation of the United States was 9.80. Retail trade fluctuated by more than national average in Cleveland, Chicago, Atlanta, St. Louis, and Dallas. During the 1930s, volatility increased in all districts. The standard deviation for the United States as a whole rose from 5.38 to 11.48.

Rows (11) to (13) indicate the maxima and minima. For most districts, the highest growth rate occurred in 1934 or 1936 during the recovery from the great contraction. The maximum for Philadelphia and San Francisco, however, occurred in 1923 during the recovery from the contraction of 1921. The minimum occurred in all districts in 1932. The max and min were larger in the South districts and the Great Lakes districts. The largest value appeared in Atlanta whose retail trade grew by 26.8 percent in 1934. The lowest value appeared in Cleveland whose retail contracted by 26.7 percent in 1932.

Section 6: Patterns in Growth Rates of Per Capita Retail Trade

Table 13 summarizes growth rates of per capita retail trade. In the 1920s, per capita retail trade increased at an annual average rate of 0.7 percent. Per capita retail trade expanded in Boston, New York, Cleveland, Richmond, Chicago, St. Louis, and San Francisco. In the 1930s, per capita retail trade declined by an annual average rate of 1.48 percent. Per capita retail trade declined in all districts except for Atlanta and Dallas.

Per capita retail trade typically moved in the same direction as aggregate retail trade, but not in all cases. In the 1920s, in San Francisco, for example, retail trade increased, but per capita retail trade decreased. In St. Louis, retail trade declined, but per capita retail trade increased. Aggregate and per capita trade moved in opposite directions, of course, due to population movements that increased (or decreased) aggregate sales while per capita sales fell (or rose).

The statistical characteristics of per capita retail trade resembled the characteristics of aggregate retail trade in many ways. Growth rates in Cleveland and Chicago fluctuated more than those in Atlanta, Richmond, and Dallas. The maximum for most districts occurred in 1934. The minimum for most districts occurred in 1932. Cleveland was the only exception.

Table 14 illuminates differences between growth in aggregate retail trade and growth in per capita retail trade by region. From 1919 to 1939, retail trade increased in all regions, but per capita retail trade increased only in the Great Lakes and the South. In the 1920s, the level of retail sales decreased in the Great Plains and the South, but per capita sales decreased in all districts. In the 1930s, retail trade increased in the Great Lakes and the South, but per capita trade increased only in the South. All regions reached the highest growth during the recovery from the Great Depression and the lowest growth during the contraction in the early 1930s.

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Section 7: Retail Trade and NBER Business Cycles

The National Bureau of Economic Research determined that five business cycles occurred in the United States between 1919 and 1939. The cycles are summarized in Table 15. Columns (1) and (2) indicate peaks and troughs in each of the cycles. Column (3) indicates the length of the contraction. Column (4) indicates the length of the expansion. Column (5) indicates the time between the troughs. Column (6) indicates the time between the peaks. Up until 1929, recessions lasted on average a little over one year except. The Great Depression, obviously, lasted longer.

Figure 4 plots NBER cycles on top of retail trade for each Federal Reserve district. The start of each shaded area indicates a business cycle peak. The end of each shaded area indicates a business cycle trough. The figures show that fluctuations in business cycles coincided closely with fluctuations in retail trade. Generally, retail trade fell from peak to trough and grew from trough to peak.

Table 16 and Table 17 illuminate these patterns. Table 16 indicates statistical characteristics for monthly growth rates for each recession. Row (1) provides averages for monthly growth rates in the Federal Reserve districts and the United States as a whole. Rows (2) to (5) provide the maximum and minimum growth rates and the year in which they occurred. Table 17 provides the same information for retail trade indices.

During the business cycle in 1920-1921, the United States as a whole reached the maximum in May, July, and August 1920 and the minimum in September of 1921. Most districts reached the maximum in May or Ju1y 1920, except for Chicago and St. Louis, which peaked in January 1920. Most districts reached their minima after the national trough. Near the national trough, plummeting agricultural prices and strikes of steelmakers, coal mines, and railroad

weakened the economic activity.[9] The Federal Reserve's decision to increase the discount rate from 4.75 to 6 percent in January and to 7 percent in June 1920 exacerbated the situation. By the middle of 1920, economic activity and employment were rapidly falling, and prices had begun one of the sharpest declines in American history. The Federal Reserve System, however, did not lower the discount rate until May 5, 1921.[10]

During the business cycle of 1923-1924, retail trade appears to have lagged the NBER business cycle, although experiences varied across districts. Boston, Atlanta, Chicago, St. Louis, Dallas, and San Francisco peaked in late 1923. New York, Philadelphia, Cleveland, Richmond peaked in early 1924. Nine districts bottomed out in March 1924. This variation seems consisted with the reported trigger of this cycle, which was new oil strikes in California, Texas, and Oklahoma, which lowered incomes and reduced investment in older oil-producing regions, such as Pennsylvania.

During the business cycle of 1926-1927, fluctuations in retail trade did not coincide with NBER business cycle dates. Federal Reserve districts appear to have had varied experiences. Some lead the national cycle. Others followed the national cycle. Some saw steep declines in retail trade. Others experienced little hardship. This pattern seems consistent with the reported trigger to the cycle, which was Henry Ford's decision to close his factories for 6 months, cease production of the Model T, and retool for production of the new Model A. Sales of the Model T amounted to 40 percent of all automobiles sold in the United States. Ford and its suppliers employed a sizeable share of the high-wage industrial labor force. Idling these workers for six months (without pay) noticeably reduced aggregate demand.

[9] Romer (1988)
[10] Friedman and Schwartz (1963)

During the contraction from 1929 to 1933, retail trade declined at an average annual rate of 11 percent. Consumption contracted severely in all districts. Cleveland, Atlanta, Chicago, St. Louis, and Dallas performed worse than the national average. Richmond performed the best; retail sales in the Richmond district declined at an annual rate of only 7.6 percent. At the national level, the contraction in retail trade began in August 1929, and lasted until March 1933. Most districts coincided closely with this national pattern.

Section 8: Growth in Population

Aggregate retail sales may provide a misleading measure of the health of the economy if changes in aggregate sales are due to changes in the population, rather than changes in consumption per capita. Determining changes in per capita consumption requires data on population (and population growth) at the Federal Reserve district level. That data does not exist. So, we estimate the population in each district in each year. Table 18 presents our estimates.

From 1919 to 1939, population in the U.S. grew by an annual average rate of 1.12 percent. The district with the quickest population growth was San Francisco, where population grew twice as quickly as the national average, principally due to the arrival of migrants from other states. The rapid growth of San Francisco's population is one reason for that district's rapid retail-sales growth.

The pattern of population growth differed during the decades that we examine. During the 1920s, the national population grew 1.54 percent per year. Population growth exceeded the average in the New York, Chicago, Dallas, and San Francisco. This pattern reflects the ongoing urbanization of America, as population shifted to growing urban areas; the beginnings of the Great Migration, as African Americans began to leave the segregated South and seek

opportunities in Northern cities; and the expansion of new industries, such as coal mining in West Virginia and Pennsylvania.

During the 1930s, the national population grew 0.69 percent per year. The low rate reflects the decline in marriage and procreation due to the depression as well as the decline in immigration due to legal barriers raised during the mid-20s. Rates were particularly low in areas afflicted by the Dust Bowl, such as Texas, Oklahoma, Kansas, Colorado, and New Mexico, where droughts destroyed crops, forcing farmers to flee to places where they could earn a living.

Table 19 compares growth in regional populations and shares of total population. From 1919 to 1939, regional shares of total population shifted considerably. Population grew rapidly in the Pacific and South. Population grew slowly in the Great Plains. Population gradually shifted towards the Sun Belt and the West Coast. The population share of other regions declined. The Great Lakes' share of the population fell 0.02 percent per year. The Northeast's share declined 0.11 percent per year. The Great Plains' share declined most, by 0.58 percent per year. These changes are illustrated in Figure 5.

Section 9: The Seasonal Cycle

Economic activity varies dramatically over the twelve months of the year, particularly for retail sales. Christmas – as well as planting, the harvest, winter snow, and summer heat – are obvious explanations. The retail-trade indices that we have constructed exhibit strong seasonal patterns. These rhythms need to be removed for the data to be used in many applications. The patterns themselves may be of interest. Barsky and Miron's (1989) essay illuminates the relationship between seasonal and business cycles in post-war data. Bealieu, Mackie-Mason, and Miron's (1992) essays demonstrates that countries which experience substantial seasonal cycles

also experience substantial business cycles. To facilitate analysis of such issues, this section describes seasonal cycles in retail sales.

Figure 6 displays the seasonal component extracted by the algorithm described in Section 3. The pattern is obvious. Retail trade is lowest during the winter months of January and February. Trade rises during the spring, falls during the summer, rises again during the fall, and peaks during December. The figure plots the data for all twelve Federal Reserve districts grouped into five regions. The North East contains the Boston (1), New York (2), and Philadelphia (3) districts. The Great Lakes contains the Cleveland (4) and Chicago (7) districts. The Great Plains contains the St. Louis (8), Minneapolis (9), Kansas City (10), and Dallas (11) districts. The Pacific contains the San Francisco (12) district. The lines for the regions appear nearly indistinguishable. The seasonal cycles across these regions appears to have a substantial common component.

Figure 7 plots a measure of the common component. It is the seasonal variation for each month averaged over all years and all districts. Sales fall below average in January, February, July, and August. Sales rise increasingly above average during the fall and peak in December. The Christmas-season surge produces almost all of the above average retail activity. Depending on the year, the surge amounted to 5 percent to 10 percent of annual retail sales.

Figure 8 plots seasonal averages for each region. The common pattern is clearly evident, but idiosyncrasies for certain regions can be discerned. In the South, sales appear to have been higher during Christmas and lower during the winter. In the Great Plains and Great Lakes, the seasonal surges and shortages seem smaller.

Table 20 examines the statistical characteristics of the seasonal cycle in all of the Federal Reserve districts. The first row indicates the standard deviation of the seasonal component for

the entire sample period. It shows that New York and Richmond experienced the largest seasonal cycles. Minneapolis experienced the mildest seasonal cycle. The experience of the other districts resembled the national average. The second and third rows indicate the standard deviation during the 1920s and 1930s respectively. At the national level, the standard deviation changed little, but in five districts – Philadelphia, Cleveland, St. Louis, Minneapolis, and Kansas City – the seasonal cycle moderated, while in the Richmond district, the seasonal cycle accentuated. The fourth and fifth rows indicate the maximum and minimum seasonal values. The maximum for each district occurred in the month of December. In New York, Richmond, and Atlanta, the December maximum amounted to 90 percent or more of average monthly spending.

The sixth through tenth rows examine the Christmas-season spending surge. The sixth row (Average Xmas) indicates how much December spending exceeded average spending during the months of March through June. December spending exceeded average by the greatest extent in New York and Richmond. Those districts appear to have had consistently merry Christmases. The seventh row (Maximum Xmas) indicates the maximum amount by which December spending exceeded the average of March through June. The highest values appear for New York and Richmond. High values also appear in San Francisco, Atlanta, and Dallas. The eight row (Maximum Xmas Year) indicates the year of the maximum. For most districts, the maximum occurred during Roaring 20s, but for the districts that recovered most rapidly during the Great Depression, the maximum occurred during 1939. The ninth row (Minimum Xmas) and tenth row (Minimum Xmas Year) indicate the magnitude and year of the minimum. The minimum occurred in 1932 in all districts. In Boston, the minimum reoccurred in 1933. On average, the minimum amounted to just over two-thirds of the average Christmas and one-half of the maximum.

Section 10: Difference between the Initial and Final Series

Table 21 illuminates difference between the initial and final series. The table's first four rows indicate the average difference for each Federal Reserve district for the full sample period, for the years 1919 to 1922, the years 1923 to 1927, and the years 1928 to 1929. These periods reflect changes in reporting methods. The remaining rows indicate the standard deviation of the difference for the same periods. The difference is calculated by subtracting the monthly value of the initial series from the final series. A negative value indicates that the initial series overestimated the volume of retail trade, and the initial estimate was lowered to create the final series. A positive value indicates that the initial series underestimated the volume of retail trade, and the initial estimates had to be increased to create the final series.

The table reveals patterns of measurement errors in the initial indices. The average error for the entire United States was -1.15. The negative value indicates that the initial indices consistently overestimated retail trade. The magnitude and direction of the errors differed from district to district. The Boston, Richmond, and Chicago districts typically overestimated retail trade. The overestimation was especially large for Richmond and Chicago, as reflected in errors of -1.69 and -2.56. Under-estimation occurred in Cleveland, Minneapolis, and Dallas, whose errors averaged 3.20, 1.67, and 1.16 respectfully.

The direction of the errors changed over time. In six of the nine districts for which data spans the enter sample period, the direction of the bias changes over time. Chicago for example, overestimated retail trade during the first and third periods and underestimated retail trade during the second period.

The magnitude of the errors also changed over time. For the United States as a whole, the mean error decreased from 2.01 in the first period to 0.57 in the second period, and rose slightly to 0.73 in the third period. Among the nine districts with index values available for the full sample period, Richmond, Chicago, Minneapolis, and Dallas exhibited large measurement errors in the first period, but the magnitude of these errors decreased substantially in subsequent periods. The shrinking errors reflected improving quality of information, especially after 1922.

Table 21's bottom four rows report the standard deviation of measurement errors imbedded in the initial index. For the United States as a whole for the entire sample period, the standard deviation was 5.64. The standard deviation fell over time. In the first period, the standard deviation was 7.58. In the latter periods, it was 3.86 and 4.34. This pattern held in almost all Federal Reserve districts. The pattern indicates that over time, the initial estimates improved, in the sense that the initial estimates increasingly resembled the final series.

Figure 9 illustrates this improvement. The figure plots the difference between the initial and final series for each of the twelve districts in each month from January 1919 through August 1929. While discerning the pattern for an individual district is difficult, the overall pattern appears clear. Errors shrink over time. Beginning in 1924, the measurement error i was small, usually only a few percent and rarely exceeding 10 percent. By 1928, the measurement error had fallen near zero.

Figure 10 provides insight into what did (and what did not) influence the quality of the initial estimate. The figure plots the final index for the entire United States and the measurement error for each month from 1919 to 1929. The errors appear uncorrelated with the index. The correlation coefficient between the measurement error and the final index, 0.04, corroborates this conclusion. The correlation coefficients between the error and the growth of the index from the

preceding month, 0.039, and between the error and growth of the index from the same month in the preceding year, 0.22, also indicate little (or no) relationship between measurements errors and cyclical movements in retail trade. These facts suggest big changes in the retail trade index did not result in big errors in measurement. The improvement in the quality of the initial estimates, in other words, stemmed primarily from improvements in data collection and processing, not from changes in the seasonality or cyclicality of the economy.

Table 22 indicates measurement errors by month of the year. Columns (1) through (3) indicate the average difference (i) for each month for the full sample period, (ii) for the years 1919 to 1922, and (iii) for the years 1923 to 1929. Columns (4) through (6) indicate the standard deviation for the same periods. On average, the initial indices were overestimated in January, March, April, May, August, October, and December. The initial indices were underestimated in February, September, and November. After 1923, the standard deviation of errors declined. The largest declines were for January, which fell from 10.41 to 0.062, and for March, which fell from 15.00 to 4.43.

To understand revisions, we examine the Seventh (Chicago) Federal Reserve District. Chicago's retail trade index was revised in April 1923, December 1923, February 1926, February 1928, and February 1929. The February 1929 revision accompanied a special report that explained the process. The Chicago Fed revised the series to improve the accuracy of the data and increase the number of reporting stores. The Chicago Fed gathered data from department stores being added to the index for all years back to 1919, and recalculated the index for previous years to make it comparable to the new index.

The three revisions corrected errors in the initial indices, although the magnitude of corrections differed from revision to revision. For example, the initial revision determined the

errors between April and November 1926 were small. The 1928 revision indicated those errors were large (and gargantuan in September 1926). The 1929 revision detected errors lying between the initial and 1928 revisions. The direction of correction also differed from revision to revision. For example, for December 1924 and January 1925, the 1928 revision reported the initial values to be overestimated, but 1929 revision found them to be correct.

This case study illustrates the Federal Reserve's struggle to accurately asses the state of the economy during the early 1920s, as the Fed constructed a reporting system and learned to process data. The Fed knew about the problems with its series. Uncertainty about economic activity may have been one reason the Fed was reluctant to act during the 1930s.

Section 11: Conclusion

Retail trade is an important indicator of the state of the economy. The Federal Reserve realized this fact and began collecting data on retail sales in 1919. The Federal Reserve published some, but not all, of this information. This essay completes that task, by reconstructing the Federal Reserve's statistical series on retail sales for each Federal Reserve district from 1919 to 1939. The reconstructed data illuminate important economic trends.

Retail trade followed business cycles closely. Retails sales increased during expansions and decreased during contractions. Retail sales did not consistently lead or lag the cycle, but it clearly commoved with industrial production, which the NBER used to date peaks and troughs in business activity. Retail sales peaked in August of 1929, a month prior to the crash, and declined precipitously during the next two years. Retail trade troughed in March of 1933. Retail sales recovered rapidly during the New Deal, only to decline during the contraction of 1937, and rebound the next year when economic expansion resumed.

Retail trade also exhibited a seasonal cycle, similar to that of our contemporary economy. Trade peaked in December and troughed in the winter and summer. Christmas caused the surge in December. Christmas spending plummeted during the contraction in the early 1930s and failed to recover during the next decade. Christmas during the 1930s involved, as Gary's grandmother frequently asserted, much less gift giving than Christmas did before or after.

Economic experiences varied across districts during the Roaring 20s and Great Depression. During the 1920s, retail sales increased in New England, the Great Lakes, and the Pacific Coast. During the 1930s, retail trade increased in the South and the Pacific. At that time, however, consumption declined in the Great Plains, extending a trend that began in the middle of the 1920s, when droughts began and the Dust Bowl formed.

The Federal Reserve's initial estimates of retail trade contained substantial measurement error. The largest errors occurred between 1919 and 1922, as the Federal Reserve struggled to construct an effective reporting system and increase the number of firms from which it collected data. After 1923, quality improved. The magnitude of errors decreased. And, the initial reports became a better indication of the state of the economy.

The data that we introduce in this essay enhances our understanding of consumption during the Great Depression. Temin (1976) asserts that a collapse of autonomous consumption caused the initial contraction in output, which subsequently decreased the demand for money and the equilibrium money stock. Romer (1990) argues that the stock market crash created immediate income uncertainty resulting in a decline in the purchase of consumer durables. Greasly, Madsen, Oxley (2001) argue that uncertainty reduced nondurable spending as well. Our new data series seems consistent with these claims and provides data needed to test these

theories and other hypothesis with the inter-district variation that existed during the Great Depression.

Table 1: Reporting Firms, Classified by Size of City and Volume of Sales

Population of City	# of Cities	# of Firms Reporting	Annual Sales, 1925, ($ 1,000)
Over 1,000,000	4	29	459,061
500,000 to 1,000,000	9	58	654,943
100,000 to 500,000	50	197	644,856
25,000 to 100,000	99	153	227,334
10,000 to 25,000	60	67	31,944
Under 10,000	31	31	7,463
Total	253	565	2,025,601

Source: Federal Reserve Bulletin, February 1929.

Table 2: Retail Trade Final Index, Average 1923 to 1925 Equals 100

Year	Month	Federal Reserve District												US
		1	2	3	4	5	6	7	8	9	10	11	12	
1919	Jan	60	57	68	61	67	68	64	(a)	84	(b)	78	50	60
	Feb	54	52	63	54	61	71	60		69		69	44	59
	Mar	66	62	64	66	79	87	75		93		96	57	65
	Apr	79	75	88	76	87	90	76		98		89	62	77
	May	80	73	70	74	83	92	77		96		91	64	73
	Jun	76	72	73	74	82	83	71		95		89	61	76
	Jul	58	56	57	62	63	76	56		76		71	59	59
	Aug	62	54	57	67	59	72	60		81		73	66	60
	Sept	74	73	71	73	78	91	69		89		103	70	76
	Oct	96	97	92	89	95	108	81		104		118	83	89
	Nov	93	96	110	91	100	115	81		98		120	75	101
	Dec	138	142	135	134	150	174	114		135		177	126	137
1920	Jan	84	85	81	85	73	93	79		96		103	75	82
	Feb	63	68	72	71	65	81	74		75		90	60	74
	Mar	92	92	93	99	96	112	96		105		127	79	90
	Apr	96	88	92	93	91	118	94		103		116	79	91
	May	96	100	107	101	92	122	96		106		121	84	101
	Jun	98	93	100	101	98	110	90		110		116	80	96
	Jul	71	69	69	82	74	90	69		88		89	72	73
	Aug	68	63	67	83	70	90	74		90		88	82	73
	Sept	84	79	79	92	83	102	84		105		113	81	88
	Oct	98	103	102	106	105	136	96		113		135	90	102
	Nov	103	108	118	111	112	130	97		113		137	85	112
	Dec	139	145	139	148	159	175	136		150		174	130	146
1921	Jan	84	81	82	88	76	86	71	76	88		91	74	83
	Feb	67	70	76	77	69	83	67	70	75		85	64	75
	Mar	95	89	92	97	98	110	86	100	102		110	79	88
	Apr	92	88	93	92	89	95	84	90	110		96	75	87
	May	92	85	89	91	88	100	86	101	100		101	79	91
	Jun	96	87	89	87	93	91	81	85	99		97	74	86
	Jul	62	60	63	63	65	70	66	62	78		70	64	64
	Aug	64	60	67	65	64	72	67	66	84		69	78	63
	Sept	77	70	69	69	70	79	76	77	92		90	74	75
	Oct	100	105	98	91	101	115	87	102	103		112	85	95
	Nov	96	100	106	87	100	103	87	102	99		103	79	97
	Dec	147	148	145	128	152	148	122	149	131		147	125	135
1922	Jan	79	75	77	67	64	71	67	69	76		74	67	73
	Feb	65	67	71	62	63	70	59	67	63		71	57	69
	Mar	87	83	84	78	80	81	73	84	83		89	75	77
	Apr	97	90	94	90	89	94	86	87	99		86	76	90
	May	96	89	90	90	87	93	89	92	95		95	89	89
	June	97	87	89	86	86	84	84	86	90		86	77	85
	July	64	60	60	65	59	66	64	62	73		64	67	64
	Aug	69	63	68	72	63	71	70	69	83		66	83	66
	Sept	89	82	79	82	78	82	87	92	94		101	78	85
	Oct	105	110	103	102	102	110	95	107	105		102	95	102
	Nov	106	107	118	100	106	107	100	108	102		103	92	108
	Dec	153	154	156	147	158	155	142	151	148		147	142	152

Table 2 (Continued)

Year	Month	Federal Reserve District												US
		1	2	3	4	5	6	7	8	9	10	11	12	
1923	Jan	83	82	82	79	75	78	81	76	83	(b)	80	79	79
	Feb	71	68	80	74	68	75	72	76	69		71	70	77
	Mar	96	93	105	105	106	101	97	105	96		97	92	93
	Apr	99	92	92	99	90	97	97	96	106		89	85	97
	May	102	97	102	106	99	104	101	100	105		105	101	100
	June	106	97	105	106	102	101	103	102	100		91	88	99
	July	69	66	68	74	68	74	71	70	75		67	81	73
	Aug	77	69	75	87	68	79	86	76	91		68	94	75
	Sept	89	85	83	91	81	91	94	101	97		101	88	94
	Oct	111	121	118	116	118	128	116	117	112		121	110	111
	Nov	112	115	129	109	117	117	112	111	105		111	100	117
	Dec	164	164	166	158	170	162	156	157	148		154	163	164
1924	Jan	95	89	86	84	81	83	85	81	83	84	85	91	86
	Feb	79	78	87	86	76	83	80	82	72	77	78	83	84
	Mar	90	88	94	93	89	90	90	94	88	85	91	92	88
	Apr	109	101	108	111	105	103	106	100	111	96	98	95	103
	May	103	99	99	102	98	104	99	96	105	94	105	101	98
	June	101	96	97	96	98	90	93	92	94	88	92	87	97
	July	73	71	69	72	71	70	71	69	78	69	70	80	71
	Aug	69	65	69	78	64	71	77	71	85	73	68	96	72
	Sept	90	95	84	91	89	91	95	100	98	100	112	90	96
	Oct	110	122	110	103	114	118	102	111	105	107	122	108	105
	Nov	108	116	118	107	118	107	113	110	109	104	111	100	117
	Dec	171	174	172	161	182	165	163	167	157	160	166	167	156
1925	Jan	91	90	83	83	79	80	84	83	87	83	91	90	84
	Feb	77	81	81	81	78	81	77	80	76	80	87	79	85
	Mar	91	92	96	96	99	95	92	99	93	97	104	98	94
	Apr	107	104	105	110	109	104	107	110	112	105	104	102	105
	May	100	100	95	101	99	103	101	95	103	96	105	105	103
	June	105	100	99	99	102	93	101	93	99	94	94	95	98
	July	75	73	69	76	76	74	76	71	77	73	71	87	75
	Aug	71	71	69	80	72	74	81	78	88	81	73	100	76
	Sept	93	97	85	89	88	84	100	100	100	100	103	97	97
	Oct	124	140	124	124	133	135	131	139	130	123	133	118	122
	Nov	110	121	122	104	124	116	114	113	102	104	110	110	122
	Dec	179	188	174	169	194	179	178	177	161	164	173	178	176
1926	Jan	101	94	86	83	87	86	85	85	85	79	91	91	90
	Feb	74	83	78	81	78	87	83	85	76	73	90	82	87
	Mar	95	98	103	98	107	103	104	105	93	92	107	108	97
	Apr	104	103	98	102	103	106	105	108	107	94	103	104	102
	May	104	106	105	106	108	114	115	105	101	92	112	107	109
	June	105	104	98	97	102	101	106	86	92	90	103	99	100
	July	77	76	70	78	78	77	88	72	81	72	76	91	77
	Aug	76	78	71	85	77	80	87	81	84	76	87	107	82
	Sept	97	104	88	97	91	89	111	105	103	98	109	109	104
	Oct	120	134	119	121	127	124	121	126	109	103	127	118	120
	Nov	119	129	124	113	132	123	120	122	101	107	121	116	124
	Dec	182	196	180	177	197	181	182	172	152	164	178	193	184

Table 2 (Continued)

Year	Month	Federal Reserve District												US
		1	2	3	4	5	6	7	8	9	10	11	12	
1927	Jan	103	96	80	85	84	85	85	79	81	80	87	96	91
	Feb	78	85	78	83	78	88	89	83	76	76	86	85	89
	Mar	97	99	94	98	99	99	104	98	92	89	97	109	95
	Apr	111	112	103	116	110	109	115	108	104	98	109	115	100
	May	101	102	94	105	103	108	106	96	91	88	112	107	105
	June	110	109	97	99	100	99	107	93	91	86	95	95	101
	July	74	74	65	78	72	76	79	68	75	68	69	89	76
	Aug	84	84	73	93	80	86	95	90	92	83	80	114	85
	Sept	99	106	83	95	91	97	107	97	93	96	105	111	103
	Oct	115	128	109	113	121	128	122	127	109	106	125	119	117
	Nov	120	134	120	112	125	119	125	120	100	110	120	121	126
	Dec	182	201	174	176	195	191	188	177	155	165	189	195	182
1928	Jan	98	94	75	85	81	85	90	82	72	80	89	96	91
	Feb	78	89	76	85	82	91	92	85	72	77	88	92	88
	Mar	96	102	96	101	105	110	109	105	91	93	109	110	97
	Apr	99	103	91	101	99	102	109	99	82	93	102	114	105
	May	101	109	95	106	106	114	118	104	90	94	116	116	107
	June	111	112	96	100	102	98	113	94	84	84	98	101	102
	July	76	77	65	78	75	77	86	73	68	71	71	94	80
	Aug	78	78	65	85	78	86	96	83	80	85	80	116	81
	Sept	97	111	89	101	96	98	124	107	99	102	112	113	113
	Oct	119	135	115	112	125	123	130	119	90	110	125	129	118
	Nov	119	134	114	110	127	120	132	119	91	108	126	118	125
	Dec	181	207	174	174	197	180	200	175	140	168	184	200	192
1929	Jan	96	97	78	86	82	89	97	81	70	83	90	106	90
	Feb	76	90	75	83	78	87	95	85	68	76	85	91	91
	Mar	101	111	99	105	114	113	120	110	92	102	115	115	107
	Apr	97	108	90	105	102	104	113	99	93	99	105	111	103
	May	108	113	93	108	109	107	121	105	88	96	115	120	109
	June	108	116	95	103	107	93	117	96	82	87	97	103	108
	July	76	80	62	80	76	75	87	76	65	72	74	100	79
	Aug	83	82	69	92	81	85	100	87	78	85	85	120	84
	Sept	99	116	89	100	100	98	129	108	94	108	111	112	115
	Oct	127	145	121	113	131	118	129	115	80	113	127	130	122
	Nov	119	133	112	110	133	114	132	118	90	115	129	124	126
	Dec	178	211	169	172	201	170	186	164	129	163	176	200	189
1930	Jan	103	101	74	79	83	75	90	74	61	76	79	104	88
	Feb	78	89	73	79	80	84	88	82	69	77	88	89	89
	Mar	103	110	96	100	117	108	112	106	93	103	118	113	105
	Apr	105	119	101	111	112	116	111	104	102	100	107	110	108
	May	109	119	92	105	112	102	113	96	89	94	104	115	108
	June	99	113	83	90	102	85	97	83	71	83	90	97	98
	July	71	78	57	72	72	66	71	66	55	67	67	91	72
	Aug	76	77	62	80	76	62	79	72	71	78	77	109	75
	Sept	90	114	82	90	91	94	111	96	91	100	103	107	107
	Oct	116	137	113	100	133	111	108	103	79	112	112	122	112
	Nov	110	124	107	92	118	100	107	94	79	102	105	106	111
	Dec	166	200	152	151	193	153	167	141	117	148	160	182	172

Table 2 (Continued)

Year	Month	Federal Reserve District 1	2	3	4	5	6	7	8	9	10	11	12	US
1931	Jan	93	95	66	74	80	69	86	69	60	76	73	95	82
	Feb	71	85	66	71	76	70	81	67	66	71	77	80	81
	Mar	108	110	96	96	126	101	103	94	98	95	101	105	102
	Apr	97	109	87	98	103	103	102	90	96	91	94	99	98
	May	93	100	79	88	102	94	95	84	77	85	91	100	93
	June	93	113	81	85	104	83	93	79	67	80	78	90	95
	July	64	72	53	66	69	59	66	58	49	57	56	84	66
	Aug	66	68	54	67	70	55	72	66	64	65	65	98	66
	Sept	92	100	69	67	86	73	90	76	74	80	75	94	92
	Oct	106	124	88	80	117	88	91	87	70	90	86	106	95
	Nov	95	111	84	76	103	81	89	85	69	79	84	90	94
	Dec	146	182	128	127	176	127	141	123	102	119	126	151	149
1932	Jan	70	77	52	54	65	54	64	60	47	57	54	74	64
	Feb	60	71	55	60	67	56	66	60	55	60	59	69	68
	Mar	88	88	76	75	103	79	81	78	79	78	80	84	81
	Apr	76	85	70	71	81	73	75	66	75	66	65	71	75
	May	75	77	63	65	84	66	72	62	58	61	62	71	71
	June	72	83	59	60	80	58	69	57	52	56	54	66	71
	July	47	51	38	43	50	40	45	40	36	41	38	59	46
	Aug	51	58	42	44	54	42	51	47	49	49	47	76	50
	Sept	78	84	54	48	76	65	69	63	66	70	70	73	76
	Oct	83	98	74	59	93	67	69	68	58	72	73	83	75
	Nov	78	90	70	58	86	63	70	68	56	63	67	67	75
	Dec	118	140	101	93	137	96	101	92	77	89	98	121	115
1933	Jan	51	58	41	42	53	41	48	46	37	46	44	54	49
	Feb	46	56	40	45	51	43	45	43	43	47	47	52	51
	Mar	59	69	56	51	73	54	58	59	61	60	62	59	59
	Apr	67	77	77	63	76	63	66	58	71	62	64	67	68
	May	72	75	60	63	80	69	71	60	60	61	65	74	69
	June	68	79	57	60	74	56	66	58	50	56	55	66	68
	July	48	50	39	49	50	42	45	43	36	44	44	67	48
	Aug	59	63	49	63	66	53	62	58	55	60	60	77	58
	Sept	78	82	61	56	77	63	73	56	64	67	64	73	77
	Oct	82	96	72	64	94	75	72	71	54	75	79	75	75
	Nov	77	89	69	62	87	73	73	74	57	65	76	69	77
	Dec	118	146	105	104	148	117	113	101	85	109	121	128	123
1934	Jan	63	65	46	56	61	53	58	58	42	57	60	62	57
	Feb	50	60	43	58	57	59	60	53	51	57	65	59	59
	Mar	84	92	80	85	111	93	89	87	78	85	98	82	86
	Apr	67	77	73	69	79	81	77	64	68	70	75	68	71
	May	74	80	67	78	96	84	83	75	67	73	79	75	77
	June	73	82	64	71	90	75	71	63	53	63	68	66	74
	July	47	50	41	51	58	51	49	45	36	47	50	61	50
	Aug	56	63	50	63	72	56	65	58	55	63	62	81	59
	Sept	72	80	60	56	84	75	81	68	73	80	86	76	80
	Oct	87	103	79	69	112	88	80	75	58	80	86	90	83
	Nov	76	95	73	72	102	90	84	82	68	75	92	82	85
	Dec	128	155	117	117	173	135	132	111	97	122	142	142	137

Table 2 (Continued)

Year	Month	Federal Reserve District 1	2	3	4	5	6	7	8	9	10	11	12	US
1935	Jan	60	65	46	64	64	56	64	59	42	60	66	69	60
	Feb	51	60	45	57	63	63	65	54	54	63	69	64	62
	Mar	71	80	69	76	105	89	90	84	75	82	94	77	79
	Apr	72	81	85	78	95	91	86	64	76	73	86	82	80
	May	73	77	65	71	96	85	83	69	69	67	80	83	77
	June	72	83	64	73	94	74	74	65	58	70	71	74	77
	July	51	55	45	58	67	60	57	52	42	54	58	72	57
	Aug	54	62	50	64	77	62	70	59	61	69	66	88	62
	Sept	79	89	67	62	96	77	86	63	75	80	91	83	87
	Oct	88	102	82	76	117	98	90	82	65	89	94	101	88
	Nov	82	101	81	80	113	102	96	86	76	82	99	90	94
	Dec	131	161	125	128	185	147	143	113	102	125	153	152	145
1936	Jan	65	71	49	61	72	62	65	62	44	64	75	75	64
	Feb	58	67	51	70	70	75	72	60	56	68	81	73	70
	Mar	78	86	78	77	113	97	98	88	81	87	103	87	86
	Apr	78	87	89	87	101	99	95	74	84	79	95	88	86
	May	79	84	72	86	109	96	94	76	78	76	95	89	86
	June	81	92	72	85	105	92	91	72	65	77	91	86	88
	July	57	64	50	67	77	67	66	56	46	57	71	81	64
	Aug	56	64	54	73	79	70	76	59	66	69	78	95	66
	Sept	89	96	73	74	102	93	102	75	84	87	108	96	99
	Oct	100	116	91	94	136	113	109	102	76	100	126	112	102
	Nov	89	110	86	91	119	113	109	93	78	86	112	92	101
	Dec	146	180	143	159	205	175	172	133	115	140	184	178	166
1937	Jan	73	76	54	69	78	72	79	68	47	69	84	82	71
	Feb	62	72	54	83	75	81	81	65	62	73	90	79	77
	Mar	88	97	91	107	134	120	123	107	94	100	122	108	103
	Apr	80	90	89	95	98	106	105	82	83	83	107	90	90
	May	82	91	77	95	113	110	103	84	79	81	107	98	93
	June	84	98	75	95	110	101	102	79	69	79	91	87	94
	July	56	65	49	74	75	70	73	61	50	61	76	84	67
	Aug	56	67	53	78	81	77	79	63	66	74	86	101	68
	Sept	89	102	78	84	113	103	112	82	90	94	122	96	105
	Oct	98	113	89	95	133	118	110	100	75	96	122	110	101
	Nov	89	110	91	88	119	120	108	91	79	89	127	95	102
	Dec	140	178	136	152	208	182	169	126	110	135	193	171	163
1938	Jan	70	73	50	68	78	73	72	70	47	67	92	78	68
	Feb	58	68	51	72	75	84	71	63	58	68	92	71	71
	Mar	79	86	70	86	116	110	106	94	88	91	118	89	89
	Apr	82	89	80	88	108	110	91	79	89	83	107	92	87
	May	72	77	57	72	98	102	81	73	71	70	102	89	77
	June	80	89	60	74	102	94	83	70	65	71	88	80	83
	July	50	56	41	60	70	68	61	57	47	56	71	76	59
	Aug	57	63	46	67	81	78	73	61	67	70	85	95	64
	Sept	79	96	68	72	108	100	102	76	87	84	114	82	95
	Oct	96	101	78	81	125	118	94	93	69	89	109	100	91
	Nov	92	104	83	85	117	125	102	94	80	88	121	96	99
	Dec	146	175	134	152	210	193	169	131	113	135	189	171	163

Table 2 (Continued)

Year	Month	Federal Reserve District												US
		1	2	3	4	5	6	7	8	9	10	11	12	
1939	Jan	69	66	48	66	76	77	71	73	48	68	91	79	67
	Feb	59	64	48	72	73	87	68	62	56	64	88	74	70
	Mar	80	89	78	93	126	123	112	99	91	90	120	93	94
	Apr	79	84	81	89	101	115	95	80	88	82	106	88	86
	May	80	83	70	85	114	119	92	85	79	75	109	93	87
	June	82	92	61	81	105	106	90	75	67	73	88	82	87
	July	53	57	42	64	71	74	64	60	47	57	71	78	61
	Aug	57	66	48	75	86	90	78	69	74	75	86	98	69
	Sept	91	100	75	79	116	107	108	79	94	86	112	93	103
	Oct	96	105	81	91	130	128	105	98	73	89	113	104	97
	Nov	93	113	96	97	130	140	106	101	80	87	119	92	105
	Dec	148	177	138	166	218	209	179	137	123	139	195	173	170

Notes: (a) Not available for January 1919 through December 1920.
(b) Not available for January 1919 through December 1923.
Source*: Federal Reserve Bulletin* issues from Feb 1928 to August 1930, and Federal Reserve Board archival data from December 1924 to December 1939.

Table 3: Retail Trade Initial Index, 1923 to 1930, Average 1923 to 1925 Equals 100

Year	Month	Federal Reserve District												US
		1	2	3	4	5	6	7	8	9	10	11	12	
1919	Jan	61	59	69	(a)	64	79	64	(b)	87	(c)	84	51	60
	Feb	53	52	56		59	69	61		73		75	46	55
	Mar	67	63	81		82	89	78		96		105	59	68
	Apr	79	77	79		94	97	77		102		96	64	78
	May	81	75	84		86	95	79		98		99	65	78
	Jun	77	72	74		84	88	74		99		95	62	74
	Jul	59	56	63		65	82	57		79		74	61	60
	Aug	61	53	63		60	71	60		85		75	69	60
	Sept	74	72	69		81	92	70		93		96	71	77
	Oct	95	99	87		98	96	78		101		112	84	99
	Nov	94	97	90		103	115	79		99		113	76	97
	Dec	141	139	110		154	174	110		135		145	127	144
1920	Jan	83	91	84		76	97	78		100		101	77	85
	Feb	63	67	65		64	86	92		79		91	60	68
	Mar	93	103	112		101	113	135		107		126	81	95
	Apr	94	89	89		96	120	103		119		115	73	93
	May	97	77	126		96	124	118		102		119	86	99
	Jun	99	93	100		102	109	117		111		114	80	95
	Jul	71	69	78		76	91	80		88		93	74	71
	Aug	68	61	77		73	91	80		93		94	84	70
	Sept	86	75	79		87	103	90		93		108	81	84
	Oct	96	105	100		111	121	85		98		130	91	104
	Nov	105	108	98		117	128	93		102		127	84	108
	Dec	143	137	116		162	179	121		136		141	121	146
1921	Jan	84	86	87		81	88	70		87		92	66	104
	Feb	67	68	68		70	87	87		73		86	59	89
	Mar	94	99	114		104	107	130		95		106	82	117
	Apr	92	88	88		95	97	100		112		95	66	89
	May	93	70	117		93	103	103		87		98	82	90
	Jun	96	86	93		97	91	97		92		94	73	85
	Jul	62	61	69		67	72	68		69		72	64	60
	Aug	65	58	74		66	72	65		83		72	79	62
	Sept	77	69	67		73	80	76		77		83	69	72
	Oct	100	108	97		104	102	76		86		108	85	97
	Nov	97	99	89		102	101	77		83		94	78	94
	Dec	151	139	118		154	149	112		111		118	118	138
1922	Jan	82	79	76		67	71	66		74		74	58	91
	Feb	65	65	63		61	73	78		64		70	54	79
	Mar	85	91	98		84	81	110		79		85	77	100
	Apr	96	90	93		94	95	99		105		84	65	88
	May	96	72	117		91	96	106		85		92	95	91
	June	95	87	91		90	83	101		87		84	76	84
	July	65	61	67		63	67	70		68		66	66	60
	Aug	68	61	75		66	70	70		83		69	84	64
	Sept	91	80	77		81	83	88		80		92	72	80
	Oct	104	113	102		105	96	83		93		99	94	102
	Nov	105	107	99		108	104	89		83		94	89	102
	Dec	158	146	128		162	156	131		124		117	132	150

Table 3 (Continued)

Year	Month	Federal Reserve District 1	2	3	4	5	6	7	8	9	10	11	12	US
1923	Jan	83	85	82	(a)	72	81	73	(b)	73	(c)	77	79	79
	Feb	73	69	75		68	75	68		74		73	71	71
	Mar	100	98	115		99	102	90		101		97	94	98
	Apr	101	92	98		86	98	88		109		87	87	92
	May	105	98	116		96	105	90		109		103	102	100
	Jun	107	97	101		98	98	97		105		90	89	97
	Jul	71	64	86		71	73	68		81		65	81	72
	Aug	78	66	88		71	79	87		93		68	95	80
	Sept	91	85	89		83	89	94		103		99	88	90
	Oct	113	121	119	116	112	128	114		114		122	104	117
	Nov	115	116	130	107	107	116	108		105		109	102	113
	Dec	165	162	156	156	162	162	157		147		154	164	161
1924	Jan	94	90	85	85	76	82	81		83		84	92	86
	Feb	79	77	85	86	74	80	83		71		77	84	81
	Mar	89	89	92	92	90	92	90		89		92	93	91
	Apr	108	103	105	108	107	103	105		104		98	97	105
	May	104	99	95	99	96	100	98		102		103	102	100
	Jun	103	96	95	99	100	92	91		91		92	88	95
	Jul	70	69	64	70	70	70	72		75		69	81	72
	Aug	68	63	65	75	67	69	80		85		68	95	74
	Sept	90	97	84	87	91	91	98		98		110	90	94
	Oct	108	117	111	100	118	116	101		111		123	109	112
	Nov	110	116	118	103	118	109	114		106		112	100	112
	Dec	169	172	160	154	184	164	162		155		166	166	166
1925	Jan	89	91	81	79	80	80	84		88		90	89	86
	Feb	74	81	78	79	76	81	75		77		87	79	79
	Mar	86	94	93	93	102	95	95		93		104	100	96
	Apr	107	106	100	105	113	105	109		105		107	102	107
	May	98	100	93	98	101	100	105		102		105	103	101
	Jun	105	100	98	95	106	95	103		98		92	93	100
	Jul	72	71	65	73	80	75	79		77		70	86	76
	Aug	69	68	68	77	75	75	84		88		76	97	78
	Sept	93	99	85	85	90	86	106		99		107	97	97
	Oct	123	141	129	119	138	134	128		129		137	117	131
	Nov	112	120	129	99	125	118	113		100		112	110	115
	Dec	177	185	166	162	198	183	180		160		175	176	178
1926	Jan	103	98	88	80	89	86	88		81		92	90	91
	Feb	73	82	79	79	79	89	88		73		91	81	82
	Mar	94	100	106	94	112	104	107		90		108	110	103
	Apr	105	105	99	98	108	110	108		102		105	104	105
	May	105	106	105	102	111	110	117		98		113	106	109
	June	105	104	99	96	106	100	108		88		101	99	103
	July	74	75	67	74	83	77	85		77		77	86	78
	Aug	76	75	69	80	80	79	90		80		85	105	83
	Sept	96	103	89	91	95	89	120		101		111	110	103
	Oct	121	135	123	113	132	121	126		104		130	118	125
	Nov	124	129	128	109	133	124	126		97		123	117	124
	Dec	185	193	176	166	202	182	171		150		180	193	185

Table 3 (Continued)

Year	Month	Federal Reserve District 1	2	3	4	5	6	7	8	9	10	11	12	US
1927	Jan	110	97	82	79	88	83	86	(b)	78	(c)	81	96	90
	Feb	77	84	77	78	77	88	94		75		87	86	84
	Mar	95	100	95	92	102	96	111		89		107	110	101
	Apr	113	113	102	109	115	110	119		98		111	116	113
	May	102	102	95	98	106	104	112		88		110	106	104
	Jun	109	109	97	92	103	98	109		88		97	95	103
	Jul	71	73	62	73	76	76	85		73		70	88	77
	Aug	83	81	71	86	83	84	102		85		81	111	90
	Sept	97	105	85	88	94	97	118		93		106	112	103
	Oct	114	128	112	105	121	124	122		104		128	119	120
	Nov	123	134	123	103	128	120	130		97		121	122	124
	Dec	181	198	170	163	196	194	193		149		192	194	188
1928	Jan	98	94	75	85	82	85	85	82	80	79	89	98	88
	Feb	78	88	71	85	82	91	89	85	75	77	88	92	85
	Mar	96	12	95	101	105	110	109	105	94	92	109	110	103
	Apr	99	103	90	101	99	102	113	99	83	92	102	114	102
	May	101	109	94	106	106	114	122	104	95	93	116	116	107
	Jun	112	112	94	100	102	98	113	94	84	84	98	101	103
	Jul	75	76	64	78	75	77	92	73	68	71	71	92	78
	Aug	78	78	65	85	78	86	100	83	80	85	80	115	85
	Sept	99	106	83	95	91	97	114	97	93	96	105	111	106
	Oct	119	135	114	112	125	123	133	119	88	110	125	129	123
	Nov	119	134	113	110	127	120	136	119	89	111	126	118	122
	Dec	181	206	172	174	197	180	203	175	137	166	186	195	187
1929	Jan	97	97	100	86	82	89	95	81	77	83	88	106	94
	Feb	76	88	75	83	78	87	93	85	76	76	84	91	85
	Mar	101	110	99	105	114	113	119	110	101	102	115	115	110
	Apr	97	108	90	105	102	104	110	99	93	99	105	111	104
	May	108	113	93	108	109	107	122	105	97	99	115	120	110
	Jun	108	116	95	103	107	93	117	96	90	87	97	100	106
	Jul	76	80	62	80	76	75	87	76	72	72	74	100	80
	Aug	83	82	69	92	81	85	100	87	86	85	85	120	89
	Sept	98	118	84	101	103	97	128	120	97	105	110	113	109
	Oct	127	146	122	118	131	121	129	117	87	112	129	129	128
	Nov	119	133	114	108	133	112	135	119	91	112	129	125	123
	Dec	176	206	173	171	204	171	187	164	132	165	179	203	185
1930	Jan	104	99	80	78	85	76	88	72	70	74	80	104	89
	Feb	77	89	73	77	81	83	88	83	73	75	85	90	83
	Mar	88	103	83	88	98	93	96	93	87	89	99	112	95
	Apr	107	120	95	112	113	104	119	109	99	97	106	114	112
	May	108	119	91	104	112	101	113	96	90	94	106	114	108
	June	89	109	84	89	100	83	98	84	80	82	89	97	95
	July	71	77	58	70	73	67	72	66	61	68	69	91	72
	Aug	74	77	63	78	77	77	84	73	73	79	78	108	79

Notes: (a) Not available for January 1919 through September 1923.
(b) Not available for January 1919 through December 1927.
(c) Not available for January 1919 through December 1927.

Source*: Federal Reserve Bulletin.* Various issues.

Table 4: Retail Trade Final Index, Seasonally Adjusted

Year	Month	Federal Reserve District												US
		1	2	3	4	5	6	7	8	9	10	11	12	
1919	Jan	65	64	76	69	83	85	75	(a)	97	(b)	91	56	68
	Feb	73	67	77	69	82	89	74		94		88	58	71
	Mar	67	62	64	66	76	89	73		93		91	59	67
	Apr	75	74	84	72	86	87	73		91		92	65	78
	May	76	72	70	71	83	89	73		94		90	64	70
	Jun	71	72	72	73	80	88	72		92		92	65	76
	Jul	81	78	79	79	84	101	74		93		97	70	79
	Aug	83	78	78	82	81	93	74		94		99	68	80
	Sept	82	82	84	82	90	103	74		92		104	73	82
	Oct	86	82	84	81	84	88	75		95		100	76	82
	Nov	84	82	88	84	85	100	74		91		107	73	86
	Dec	86	85	85	86	86	106	73		93		111	79	86
1920	Jan	92	95	91	96	90	117	93		111		121	85	93
	Feb	85	87	88	90	88	101	93		103		115	79	90
	Mar	93	92	93	100	93	114	93		105		121	82	93
	Apr	91	87	87	88	90	114	91		95		120	83	92
	May	91	98	107	97	92	117	91		104		119	83	97
	Jun	92	94	99	100	96	117	91		108		120	85	96
	Jul	99	97	97	105	100	120	92		108		122	86	97
	Aug	92	91	92	101	97	116	90		104		120	84	97
	Sept	93	89	93	103	96	116	89		107		114	86	94
	Oct	88	87	92	97	92	111	89		103		114	82	93
	Nov	93	92	94	102	95	114	89		105		122	83	95
	Dec	87	87	87	95	92	107	87		103		109	81	91
1921	Jan	92	91	92	101	94	107	83	94	102		107	84	95
	Feb	90	90	93	98	93	104	84	90	103		108	84	91
	Mar	96	90	93	98	95	113	85	100	103		105	81	91
	Apr	87	87	88	87	88	92	81	90	101		100	79	88
	May	88	84	89	87	88	96	82	99	97		98	78	87
	Jun	90	88	88	86	91	96	82	88	98		101	79	86
	Jul	87	85	90	82	89	94	88	88	97		97	77	86
	Aug	87	86	92	79	89	93	82	87	96		95	80	84
	Sept	85	79	82	77	81	90	80	76	94		91	79	80
	Oct	90	88	88	82	88	94	80	88	94		94	78	87
	Nov	87	85	85	80	85	90	79	89	92		92	77	82
	Dec	91	88	90	82	87	91	78	90	89		92	78	84
1922	Jan	86	84	88	78	79	88	78	85	89		87	75	84
	Feb	87	85	87	79	84	88	75	86	87		90	75	83
	Mar	89	85	85	79	78	83	73	84	86		86	77	80
	Apr	92	89	89	85	88	90	82	87	90		89	79	91
	May	92	88	90	86	87	89	85	90	91		91	87	86
	June	91	88	88	85	84	88	84	89	90		90	83	86
	July	90	86	86	86	81	89	86	88	92		89	81	87
	Aug	95	90	93	88	88	93	86	91	94		91	85	88
	Sept	98	92	94	91	91	93	91	91	96		101	84	90
	Oct	94	91	92	91	88	90	87	92	95		85	86	93
	Nov	96	92	95	92	90	94	90	95	95		92	90	92
	Dec	93	91	95	93	90	94	90	91	99		92	88	93

Table 4 (Continued)

Year	Month	Federal Reserve District												US
		1	2	3	4	5	6	7	8	9	10	11	12	
1923	Jan	90	92	95	93	93	96	95	93	97	(b)	93	89	91
	Feb	95	87	98	93	91	93	92	97	96		89	91	93
	Mar	99	97	107	107	104	104	99	106	100		95	95	97
	Apr	94	91	86	92	88	93	92	95	96		92	88	97
	May	98	97	102	101	99	99	97	99	100		100	99	97
	June	101	98	105	105	101	106	104	106	101		96	96	100
	July	97	95	99	99	95	101	96	100	95		95	98	100
	Aug	107	99	104	107	96	104	106	101	103		94	96	101
	Sept	98	94	99	101	95	104	97	100	99		101	95	99
	Oct	99	100	104	103	101	105	106	100	101		101	100	101
	Nov	101	99	105	101	99	103	101	98	99		100	98	100
	Dec	98	96	99	98	96	98	97	95	97		96	99	99
1924	Jan	103	100	101	100	101	102	101	99	98	99	99	103	100
	Feb	105	99	107	108	101	102	102	103	98	97	96	108	101
	Mar	95	93	96	96	88	93	93	95	93	87	90	95	93
	Apr	104	101	101	103	103	99	100	99	101	94	101	98	103
	May	101	99	100	98	98	99	96	96	100	98	100	100	96
	June	97	98	97	96	98	95	94	97	97	94	98	96	99
	July	102	103	101	97	99	96	96	99	99	94	100	98	97
	Aug	96	93	97	96	91	94	96	93	97	91	94	99	97
	Sept	99	104	99	101	104	104	98	99	99	97	111	97	101
	Oct	98	100	96	91	97	98	93	94	95	96	102	99	95
	Nov	98	100	96	100	99	95	102	97	103	94	100	97	100
	Dec	101	100	101	99	101	99	100	100	101	94	102	100	93
1925	Jan	97	101	99	100	98	98	101	102	102	98	106	102	98
	Feb	102	103	101	101	104	99	98	99	102	101	107	103	101
	Mar	97	99	98	100	99	97	97	100	99	100	103	101	100
	Apr	102	105	99	102	108	100	101	107	102	103	107	105	106
	May	99	101	96	97	99	98	98	96	100	100	100	104	102
	June	102	102	100	101	103	99	102	99	103	101	101	106	101
	July	104	105	101	102	106	102	103	102	98	99	103	106	103
	Aug	99	102	98	98	102	97	101	102	101	101	100	103	102
	Sept	101	105	99	98	102	96	102	99	99	97	102	104	101
	Oct	111	115	108	111	113	113	120	118	117	111	112	108	111
	Nov	99	104	100	97	104	104	102	100	98	94	99	107	104
	Dec	104	107	100	102	107	106	108	106	102	96	105	106	104
1926	Jan	107	107	104	100	109	106	104	106	101	94	107	104	105
	Feb	99	105	98	101	104	105	104	105	100	92	110	106	104
	Mar	102	106	105	102	106	104	109	106	99	94	106	111	103
	Apr	101	105	92	95	104	102	100	105	98	93	106	108	103
	May	104	108	107	103	109	109	113	107	99	96	106	107	108
	June	102	106	99	99	104	108	108	93	97	98	112	112	104
	July	106	110	103	104	109	107	120	103	103	98	112	112	106
	Aug	105	112	102	104	108	104	109	104	96	93	118	110	109
	Sept	105	111	102	106	105	101	112	104	99	95	108	115	106
	Oct	107	110	102	109	108	105	111	107	99	93	108	109	109
	Nov	107	111	102	106	110	111	108	108	98	96	109	113	106
	Dec	106	110	102	106	107	106	110	103	96	96	107	114	108

Table 4 (Continued)

Year	Month	Federal Reserve District 1	2	3	4	5	6	7	8	9	10	11	12	US
1927	Jan	108	110	98	104	106	106	105	99	99	96	104	110	107
	Feb	105	108	99	103	105	106	112	103	98	96	105	110	107
	Mar	104	108	95	101	98	99	108	98	96	90	95	113	101
	Apr	109	115	97	108	112	105	110	104	96	97	112	119	101
	May	102	104	96	102	103	103	104	98	90	92	107	108	104
	June	108	111	99	102	103	108	110	102	97	95	104	109	106
	July	103	108	97	103	102	106	108	97	97	93	102	109	105
	Aug	114	121	106	112	111	111	119	115	104	101	107	116	113
	Sept	107	111	94	104	104	108	106	96	87	93	104	116	103
	Oct	101	106	92	102	103	109	112	109	101	95	107	110	107
	Nov	107	115	100	106	105	108	113	105	97	99	108	118	109
	Dec	106	112	98	105	106	112	113	106	98	98	113	115	106
1928	Jan	103	109	94	105	104	108	112	104	91	96	108	110	108
	Feb	106	114	97	106	112	110	115	105	92	98	107	120	106
	Mar	102	110	96	103	102	107	112	104	91	93	105	114	102
	Apr	99	106	86	94	102	97	105	95	75	92	104	119	107
	May	102	112	98	103	106	110	116	106	89	98	111	117	107
	June	109	114	98	103	105	107	116	103	90	94	109	116	106
	July	106	113	98	103	107	108	119	104	90	98	106	115	112
	Aug	105	113	94	102	108	110	120	104	89	102	105	117	108
	Sept	103	114	100	111	109	108	121	106	91	98	110	117	112
	Oct	104	111	96	103	105	106	120	103	86	98	108	118	108
	Nov	106	116	95	105	107	109	120	105	89	97	113	115	109
	Dec	106	115	98	104	107	106	121	106	90	100	110	118	112
1929	Jan	102	114	99	107	107	115	121	103	91	100	112	122	109
	Feb	104	116	97	104	107	106	118	105	86	96	104	119	110
	Mar	106	118	97	105	108	107	121	106	88	100	108	119	111
	Apr	98	111	85	97	106	98	109	95	83	98	107	117	104
	May	108	117	96	104	108	103	119	107	86	100	111	122	110
	June	108	117	97	106	110	102	120	106	89	99	108	119	112
	July	108	119	95	105	110	106	122	108	89	101	112	122	111
	Aug	112	118	100	109	112	110	125	109	87	102	111	120	113
	Sept	103	118	98	111	113	107	125	107	85	103	108	115	112
	Oct	110	119	100	105	109	102	119	100	79	99	110	118	111
	Nov	106	116	95	106	114	104	121	104	88	105	116	122	111
	Dec	105	117	96	103	109	101	113	100	85	99	105	118	109
1930	Jan	111	120	96	99	110	98	112	94	82	93	100	120	109
	Feb	107	116	95	99	111	104	110	102	85	97	107	117	109
	Mar	107	116	92	98	108	101	111	100	84	99	109	116	107
	Apr	106	122	96	102	116	108	108	101	87	99	108	117	109
	May	109	124	95	101	111	98	111	97	87	97	101	117	109
	June	100	113	85	91	104	93	99	90	79	94	102	112	101
	July	103	117	88	94	107	95	101	94	78	95	102	111	102
	Aug	102	111	89	95	105	81	99	90	80	94	100	109	101
	Sept	91	114	89	101	101	101	107	95	81	95	100	109	102
	Oct	99	113	92	94	111	96	101	90	79	96	97	109	102
	Nov	99	109	91	90	104	92	99	83	78	94	94	107	99
	Dec	97	110	87	91	105	91	102	87	79	91	95	107	99

Table 4 (Continued)

Year	Month	Federal Reserve District												US
		1	2	3	4	5	6	7	8	9	10	11	12	
1931	Jan	103	115	88	94	108	92	107	87	82	94	94	110	103
	Feb	98	111	88	88	106	88	101	84	80	88	94	105	99
	Mar	112	115	90	92	113	92	100	86	86	89	91	108	102
	Apr	99	111	81	89	107	94	99	89	80	90	94	106	99
	May	92	105	81	84	101	90	93	85	75	87	90	101	94
	June	95	112	83	86	106	90	95	86	75	91	89	103	98
	July	94	111	83	87	104	86	95	84	74	82	85	102	95
	Aug	89	97	77	79	96	73	89	82	72	78	84	97	89
	Sept	91	99	74	76	94	77	86	76	65	76	72	96	87
	Oct	89	101	72	76	97	76	86	77	69	77	75	94	87
	Nov	86	98	72	74	91	74	82	75	68	74	76	92	85
	Dec	86	100	73	76	96	75	86	77	69	74	75	89	86
1932	Jan	79	94	70	69	89	72	80	74	66	71	70	87	82
	Feb	84	95	74	74	95	71	82	76	67	74	72	90	84
	Mar	90	92	71	71	92	71	77	70	68	72	71	86	81
	Apr	77	86	65	64	83	66	73	66	61	66	64	77	75
	May	74	81	64	62	82	63	70	63	56	63	62	72	71
	June	73	83	61	61	81	62	71	62	58	63	62	75	72
	July	69	79	60	56	76	59	66	58	56	59	58	73	67
	Aug	69	82	59	52	73	57	63	58	55	59	60	74	67
	Sept	75	83	58	56	82	69	66	64	58	67	67	75	71
	Oct	70	80	61	57	77	59	66	61	58	62	65	73	69
	Nov	71	80	60	58	78	58	65	60	55	60	61	69	68
	Dec	69	77	58	56	75	57	62	58	53	56	59	71	66
1933	Jan	58	72	56	54	74	56	61	56	53	57	57	64	63
	Feb	64	75	55	54	73	55	57	54	52	57	56	67	63
	Mar	60	72	52	48	65	49	55	51	52	55	55	61	59
	Apr	68	78	70	58	79	58	63	59	58	61	64	72	68
	May	71	80	60	60	77	66	69	61	57	63	65	75	70
	June	69	79	59	60	76	60	68	62	56	63	64	75	69
	July	71	78	60	64	76	63	66	62	57	64	67	82	70
	Aug	80	89	68	73	88	72	76	71	61	70	78	76	78
	Sept	74	80	65	66	82	67	70	57	56	63	60	75	72
	Oct	69	78	60	63	78	66	68	63	55	65	71	66	69
	Nov	71	78	60	62	79	66	68	64	55	63	69	71	70
	Dec	69	79	60	63	80	69	69	64	58	68	72	75	71
1934	Jan	73	82	64	71	85	73	74	70	61	70	77	75	75
	Feb	70	80	61	69	82	75	75	68	61	68	78	76	73
	Mar	86	95	74	79	99	84	82	75	67	78	88	86	84
	Apr	69	78	65	63	81	74	75	67	57	70	74	72	71
	May	74	85	68	74	94	79	81	75	62	75	80	76	78
	June	74	82	67	70	91	80	74	68	60	70	80	76	75
	July	70	79	63	66	88	76	73	64	58	69	76	74	72
	Aug	77	89	70	73	96	77	80	72	61	73	80	80	79
	Sept	68	78	63	67	88	79	77	69	63	75	81	78	75
	Oct	74	85	66	68	94	78	76	67	61	70	78	80	77
	Nov	70	83	63	71	93	80	78	72	65	73	83	84	77
	Dec	74	84	66	71	94	79	80	70	65	75	83	82	78

Table 4 (Continued)

Year	Month	Federal Reserve District												US
		1	2	3	4	5	6	7	8	9	10	11	12	
1935	Jan	70	82	66	81	91	78	82	70	63	73	82	84	78
	Feb	71	81	64	67	92	79	81	69	65	76	82	83	77
	Mar	72	83	65	71	94	81	82	71	64	74	84	81	78
	Apr	74	83	75	72	99	84	83	67	64	74	85	88	80
	May	73	82	65	69	93	81	81	69	64	71	81	85	78
	June	72	83	67	73	96	79	78	71	66	77	83	85	79
	July	75	87	70	75	102	90	85	74	67	78	87	88	82
	Aug	74	88	70	75	102	85	86	73	67	80	86	86	82
	Sept	74	86	70	73	100	81	82	65	65	75	86	86	80
	Oct	74	85	69	75	97	87	85	72	68	79	86	90	82
	Nov	76	88	70	79	103	90	89	75	72	79	90	91	85
	Dec	76	86	69	76	100	86	86	72	68	77	89	87	82
1936	Jan	76	90	70	77	101	87	85	74	68	79	93	91	84
	Feb	81	91	73	82	104	94	91	77	68	81	96	94	87
	Mar	79	89	73	71	102	89	88	74	68	79	92	92	85
	Apr	80	89	77	80	105	92	93	77	71	80	95	93	86
	May	79	90	74	85	106	92	94	77	73	80	97	92	88
	June	81	92	76	86	107	98	96	79	73	86	109	98	91
	July	85	101	79	87	117	101	98	79	72	82	105	98	93
	Aug	78	91	77	85	104	97	94	74	74	80	101	94	88
	Sept	84	93	75	87	105	98	97	79	73	82	102	100	91
	Oct	84	97	78	93	114	100	103	90	79	90	117	100	96
	Nov	82	95	75	90	109	99	101	81	74	83	101	93	91
	Dec	84	96	79	93	110	101	102	85	76	86	106	101	94
1937	Jan	85	96	77	87	110	101	104	80	74	85	103	99	94
	Feb	85	97	78	97	111	100	104	83	76	86	107	102	96
	Mar	88	100	85	99	122	110	108	90	79	90	110	114	101
	Apr	82	92	77	88	103	99	104	85	69	84	108	95	90
	May	83	98	79	94	110	106	105	86	75	87	110	101	96
	June	84	98	80	98	113	107	109	87	77	88	109	100	97
	July	84	102	78	97	113	106	108	85	78	88	113	102	96
	Aug	78	96	76	93	108	105	99	80	74	86	110	100	92
	Sept	83	97	78	97	114	109	105	86	77	89	115	100	96
	Oct	83	96	77	94	112	106	104	87	78	87	114	99	95
	Nov	81	94	78	87	109	104	100	79	75	85	114	96	92
	Dec	80	95	74	88	110	105	98	80	73	82	111	96	91
1938	Jan	82	93	73	86	111	104	95	83	74	82	112	95	90
	Feb	80	93	74	83	110	105	91	81	72	81	110	92	88
	Mar	80	88	66	79	104	101	93	79	73	82	107	93	87
	Apr	85	92	69	82	114	104	91	81	75	84	108	98	88
	May	74	84	58	72	96	99	83	75	68	75	105	92	80
	June	80	89	65	77	106	100	88	77	73	79	107	92	86
	July	75	87	66	79	107	102	91	79	74	80	105	92	85
	Aug	80	89	67	80	108	106	91	78	75	81	109	94	87
	Sept	73	90	68	83	108	106	95	80	74	80	108	85	87
	Oct	81	87	68	80	106	106	88	81	73	81	102	91	86
	Nov	83	89	70	84	106	108	95	83	76	83	108	98	89
	Dec	83	93	72	87	111	110	97	83	74	82	108	96	91

Table 4 (Continued)

Year	Month	Federal Reserve District 1	2	3	4	5	6	7	8	9	10	11	12	US
1939	Jan	80	85	70	85	108	110	95	85	76	83	111	96	89
	Feb	81	87	69	83	108	109	88	80	71	76	105	96	87
	Mar	81	91	74	86	114	113	98	83	75	81	108	97	92
	Apr	82	88	70	83	108	109	95	82	74	83	108	94	88
	May	82	91	72	86	112	116	95	87	75	81	112	97	90
	June	82	92	66	84	109	113	96	83	76	81	107	94	90
	July	80	89	68	85	108	112	94	84	75	82	105	94	87
	Aug	81	94	70	90	115	122	98	88	82	87	110	97	93
	Sept	84	94	75	90	115	113	100	84	79	81	106	96	94
	Oct	81	90	70	90	110	115	99	84	78	80	106	95	91
	Nov	85	97	81	96	118	121	99	89	77	82	107	94	94
	Dec	84	94	73	94	115	119	102	87	81	84	111	96	94

Notes: (a) Not available for January 1919 through December 1920.
(b) Not available for January 1919 through December 1923.
Source: See Table 2. Seasonally adjusted as described in text.

Table 5: Retail Trade Indices by Federal Reserve District, Seasonal Component

		Federal Reserve District												
Year	Month	1	2	3	4	5	6	7	8	9	10	11	12	US
1919	Jan	-5.36	-6.99	-7.79	-7.69	-15.57	-17.50	-11.16	(a)	-12.62	(b)	-13.42	-6.37	-8.04
	Feb	-19.03	-14.65	-13.67	-14.52	-21.46	-17.68	-14.45		-25.19		-18.99	-13.96	-12.32
	Mar	-1.10	-0.12	-0.03	-0.36	2.99	-1.68	2.10		0.44		5.21	-2.00	-1.91
	Apr	4.40	0.98	4.33	4.03	1.23	2.90	2.59		6.55		-3.10	-3.09	-1.46
	May	3.92	1.15	-0.29	2.62	-0.39	3.44	4.28		1.90		1.24	0.44	3.36
	Jun	4.70	-0.48	0.62	0.68	1.79	-5.37	-0.94		2.51		-2.86	-3.82	-0.27
	Jul	-23.00	-22.05	-22.47	-16.84	-21.23	-24.98	-17.85		-16.56		-25.70	-11.32	-19.51
	Aug	-21.25	-24.13	-21.08	-14.66	-22.44	-21.04	-13.58		-12.82		-26.12	-1.76	-19.92
	Sept	-7.91	-9.29	-12.78	-8.82	-12.39	-12.29	-4.39		-2.54		-1.37	-3.46	-5.67
	Oct	10.05	14.89	8.29	7.50	11.31	19.60	5.44		8.52		17.64	7.21	7.25
	Nov	8.90	13.76	22.10	7.47	14.82	14.51	6.78		7.09		13.26	1.74	15.33
	Dec	51.66	56.79	49.74	47.62	63.54	67.74	40.85		42.22		66.38	47.37	51.13
1920	Jan	-7.80	-10.48	-9.63	-11.29	-17.17	-23.67	-13.60		-14.94		-17.76	-9.69	-11.25
	Feb	-22.19	-19.10	-15.62	-19.20	-22.83	-20.40	-18.57		-27.62		-24.75	-19.08	-15.51
	Mar	-1.45	-0.46	-0.29	-0.73	3.41	-2.33	2.36		-0.13		6.49	-2.63	-2.63
	Apr	5.25	1.07	4.69	5.04	1.28	3.94	3.23		7.64		-4.19	-3.84	-1.50
	May	4.74	1.60	-0.16	3.88	-0.02	4.59	5.25		2.20		2.45	0.83	4.45
	Jun	6.14	-0.55	0.94	1.12	2.31	-6.68	-0.84		2.28		-3.93	-5.14	-0.39
	Jul	-28.46	-27.79	-28.00	-23.10	-25.67	-30.09	-22.49		-19.77		-32.85	-13.98	-24.45
	Aug	-23.50	-27.92	-24.63	-17.96	-26.84	-26.35	-16.48		-13.79		-31.96	-2.18	-24.31
	Sept	-8.87	-10.03	-14.40	-10.99	-13.29	-13.68	-5.10		-2.33		-1.05	-4.51	-6.45
	Oct	10.19	16.23	9.56	9.37	12.93	24.66	6.90		9.56		20.61	7.92	8.55
	Nov	9.96	15.58	23.79	9.05	16.71	16.40	8.38		8.12		15.18	1.96	16.93
	Dec	52.19	58.09	51.57	52.80	67.34	67.94	48.79		47.42		65.10	48.94	54.82

Table 5 (Continued)

Year	Month	Federal Reserve District 1	2	3	4	5	6	7	8	9	10	11	12	US
1921	Jan	-7.73	-9.90	-10.46	-12.78	-18.08	-21.32	-12.02	-18.28	-14.38	(b)	-15.74	-9.52	-11.70
	Feb	-23.44	-19.62	-16.69	-20.89	-24.02	-21.05	-17.27	-20.10	-28.32		-23.12	-20.28	-15.74
	Mar	-1.46	-1.05	-0.72	-0.95	3.19	-2.66	1.25	0.07	-1.21		4.86	-2.43	-2.69
	Apr	5.00	0.97	5.08	5.28	1.25	3.41	3.16	-0.50	8.91		-3.50	-3.51	-1.13
	May	4.40	1.23	0.28	3.90	0.27	3.96	4.44	2.39	2.67		3.14	1.16	3.60
	Jun	5.90	-0.55	0.91	1.10	2.32	-5.13	-0.52	-2.73	1.12		-3.65	-5.10	-0.43
	Jul	-25.14	-24.93	-26.74	-18.89	-23.61	-24.04	-22.07	-26.45	-18.63		-26.72	-12.84	-21.97
	Aug	-22.87	-26.32	-24.66	-14.24	-24.89	-21.35	-15.06	-21.44	-11.94		-25.62	-1.89	-21.17
	Sept	-7.94	-8.83	-12.84	-8.01	-11.31	-10.63	-4.12	0.87	-1.76		-0.55	-4.88	-5.15
	Oct	10.23	17.16	9.66	8.63	12.94	20.83	6.57	14.33	9.44		17.77	7.48	8.20
	Nov	9.46	14.58	21.11	7.07	15.09	12.86	8.10	13.04	6.84		11.26	1.79	14.61
	Dec	55.94	59.63	54.96	46.10	64.67	57.44	44.05	58.61	42.23		54.91	47.31	51.25
1922	Jan	-7.27	-9.00	-10.84	-10.68	-15.40	-17.01	-11.33	-16.24	-12.96		-12.61	-8.50	-10.77
	Feb	-22.04	-18.49	-15.55	-16.61	-21.44	-17.62	-15.79	-18.88	-24.36		-18.75	-17.71	-14.30
	Mar	-1.88	-2.03	-1.07	-1.12	2.13	-2.18	-0.09	-0.09	-2.53		3.13	-2.18	-2.67
	Apr	5.21	0.84	5.39	5.48	1.33	3.62	3.61	-0.09	8.79		-2.98	-3.34	-0.65
	May	4.09	0.75	0.26	3.97	0.29	3.79	4.00	1.65	3.76		3.80	1.62	2.85
	June	5.73	-0.71	0.74	1.14	2.06	-4.40	-0.24	-3.05	-0.30		-3.78	-5.97	-0.68
	July	-25.96	-25.72	-26.50	-20.80	-22.40	-23.35	-22.03	-26.32	-18.58		-25.46	-13.91	-22.56
	Aug	-25.84	-27.45	-25.31	-16.01	-25.20	-21.69	-15.88	-22.43	-11.33		-25.22	-2.03	-22.47
	Sept	-9.24	-9.99	-14.98	-9.43	-13.08	-11.29	-4.19	0.93	-1.55		-0.12	-6.04	-5.37
	Oct	10.85	18.90	11.00	10.57	13.97	20.02	7.70	15.07	9.93		16.81	8.55	9.09
	Nov	10.22	15.45	22.89	7.75	16.10	12.93	9.82	13.42	6.66		10.80	2.02	16.19
	Dec	59.75	62.93	60.93	54.13	68.02	60.53	52.14	59.71	49.27		55.12	54.47	58.67

Table 5 (Continued)

Year	Month	Federal Reserve District 1	2	3	4	5	6	7	8	9	10	11	12	US
1923	Jan	-7.15	-9.82	-12.67	-13.95	-18.26	-18.12	-14.04	-17.46	-14.42	(b)	-13.39	-10.05	-12.16
	Feb	-23.59	-18.54	-17.96	-19.47	-22.63	-18.34	-19.87	-20.53	-26.55		-17.75	-21.46	-15.59
	Mar	-3.28	-3.95	-1.82	-2.42	1.82	-3.13	-2.15	-0.68	-4.42		2.23	-2.63	-3.99
	Apr	5.24	0.69	5.61	6.59	1.53	3.82	4.80	0.53	9.58		-2.70	-3.38	-0.34
	May	3.51	0.23	0.14	4.69	0.29	4.70	4.03	0.91	4.86		4.86	1.87	2.56
	June	5.32	-1.42	0.21	0.64	1.45	-5.28	-0.50	-4.27	-1.45		-4.84	-7.72	-1.49
	July	-27.59	-28.90	-31.03	-24.81	-26.71	-26.86	-24.97	-29.77	-20.20		-27.80	-17.38	-26.51
	Aug	-30.05	-29.91	-28.84	-19.81	-27.88	-24.91	-20.21	-24.55	-12.28		-26.17	-2.50	-25.69
	Sept	-8.88	-9.44	-15.55	-9.91	-13.66	-12.78	-3.47	0.91	-1.79		0.26	-7.32	-5.23
	Oct	11.62	21.48	13.54	12.76	16.84	22.79	9.60	16.78	11.00		20.13	9.76	10.15
	Nov	10.73	16.48	24.38	7.98	18.18	13.56	11.42	13.47	6.18		11.12	2.35	17.47
	Dec	65.71	68.17	67.05	59.68	74.28	64.13	58.64	62.30	50.97		58.30	63.65	64.58
1924	Jan	-7.50	-10.78	-14.71	-15.99	-19.77	-18.91	-15.64	-18.47	-14.50	-15.43	-13.96	-11.91	-13.90
	Feb	-25.88	-21.04	-19.99	-22.05	-25.04	-19.43	-22.23	-21.00	-26.32	-20.16	-18.48	-25.04	-16.53
	Mar	-4.57	-5.43	-1.88	-3.00	0.77	-2.68	-3.40	-0.92	-5.47	-2.39	1.40	-2.54	-4.66
	Apr	5.48	0.26	6.66	7.71	1.54	3.81	5.63	1.45	10.32	1.76	-2.57	-3.42	-0.28
	May	2.38	-0.43	-0.60	4.09	0.13	4.78	3.25	-0.42	4.69	-3.65	5.10	1.36	1.87
	June	4.27	-1.92	-0.42	-0.34	0.19	-4.81	-0.63	-4.70	-2.80	-6.13	-5.94	-8.89	-2.26
	July	-28.69	-31.55	-31.98	-24.57	-28.41	-26.03	-25.42	-29.63	-21.27	-24.64	-30.38	-17.50	-26.34
	Aug	-27.43	-28.14	-27.69	-17.67	-26.80	-22.73	-18.62	-22.45	-12.35	-18.24	-25.89	-2.86	-24.56
	Sept	-8.75	-9.23	-15.38	-9.52	-15.16	-12.96	-2.92	0.68	-0.80	2.69	0.66	-7.21	-4.68
	Oct	11.71	22.13	13.65	11.56	16.91	20.45	8.84	16.60	10.12	10.53	20.03	9.36	9.75
	Nov	10.34	16.50	22.02	7.24	18.80	11.64	11.49	13.03	5.67	9.79	10.74	2.60	17.44
	Dec	70.11	73.67	71.50	62.40	80.85	66.42	62.75	66.60	55.81	65.76	63.85	66.51	62.57

Table 5 (Continued)

Year	Month	Federal Reserve District 1	2	3	4	5	6	7	8	9	10	11	12	US
1925	Jan	-5.97	-11.41	-15.69	-16.76	-19.30	-18.37	-16.93	-19.25	-15.34	-15.35	-15.13	-12.31	-13.93
	Feb	-25.37	-21.81	-19.57	-20.21	-25.85	-17.91	-20.66	-19.50	-25.62	-20.80	-19.65	-23.60	-16.44
	Mar	-6.00	-7.15	-1.92	-3.74	0.33	-2.45	-4.50	-1.35	-6.39	-2.68	1.13	-2.85	-5.82
	Apr	4.55	-0.52	6.41	7.83	0.68	3.52	5.91	2.64	9.85	1.76	-2.53	-3.38	-0.70
	May	0.97	-0.96	-1.22	3.54	-0.13	4.90	2.80	-1.41	3.16	-3.77	5.24	0.55	1.47
	June	3.49	-2.45	-1.03	-1.66	-1.41	-5.70	-1.47	-6.00	-4.02	-7.13	-7.14	-11.16	-3.18
	July	-28.80	-32.49	-32.15	-25.55	-30.46	-28.01	-27.46	-30.81	-21.32	-26.21	-32.07	-19.42	-28.18
	Aug	-28.06	-30.84	-29.30	-18.01	-29.97	-23.42	-20.19	-23.94	-12.95	-19.58	-26.86	-2.91	-25.68
	Sept	-8.43	-7.76	-14.42	-8.63	-14.29	-11.73	-2.00	0.78	0.93	2.71	0.71	-6.59	-3.53
	Oct	13.31	25.08	16.31	13.41	19.73	22.15	11.25	21.13	12.75	12.18	20.95	9.67	11.09
	Nov	11.03	17.39	22.33	6.77	20.30	11.95	11.54	13.36	4.06	9.94	10.72	3.01	18.04
	Dec	74.52	80.89	74.13	66.66	87.43	73.14	70.01	70.96	58.72	67.51	67.72	72.02	71.73
1926	Jan	-5.86	-12.81	-17.92	-17.38	-21.86	-20.31	-18.83	-20.67	-16.42	-14.84	-15.89	-12.83	-15.42
	Feb	-24.83	-22.34	-19.70	-19.82	-26.28	-18.48	-21.50	-20.22	-23.70	-19.05	-19.78	-24.23	-16.83
	Mar	-7.17	-8.35	-1.64	-3.69	0.66	-1.48	-5.11	-0.99	-5.91	-2.10	1.43	-3.36	-6.35
	Apr	3.15	-1.58	5.61	7.02	-0.90	3.51	5.43	3.25	8.75	1.34	-2.63	-3.56	-1.14
	May	-0.25	-1.77	-2.31	3.04	-0.56	4.97	2.41	-2.43	1.81	-3.79	5.54	-0.40	0.93
	June	3.08	-2.39	-1.31	-2.47	-2.45	-7.29	-2.19	-6.82	-5.19	-7.89	-8.91	-13.06	-3.94
	July	-29.40	-34.15	-33.13	-25.62	-31.42	-29.57	-32.15	-31.33	-22.41	-26.17	-35.55	-20.61	-29.19
	Aug	-29.04	-34.14	-31.18	-18.57	-31.27	-24.26	-21.83	-23.49	-12.10	-17.25	-30.59	-2.60	-27.47
	Sept	-8.38	-6.51	-13.58	-9.03	-14.02	-11.73	-0.90	0.89	3.90	2.77	0.75	-5.95	-2.38
	Oct	13.47	23.73	16.90	12.26	19.00	19.16	10.39	19.03	9.72	10.27	19.22	9.29	10.75
	Nov	12.28	18.43	21.88	6.96	21.85	12.10	11.92	14.49	3.18	10.54	12.10	3.43	17.89
	Dec	76.39	85.58	77.98	70.83	89.71	74.59	72.39	69.10	55.97	67.57	70.76	78.90	75.95

Table 5 (Continued)

Year	Month	Federal Reserve District 1	2	3	4	5	6	7	8	9	10	11	12	US
1927	Jan	-5.46	-14.34	-18.18	-18.71	-22.30	-21.46	-20.33	-20.43	-17.87	-15.52	-16.70	-13.98	-16.27
	Feb	-27.12	-23.24	-20.84	-20.39	-27.05	-18.27	-22.65	-19.62	-22.47	-20.12	-18.67	-25.21	-17.59
	Mar	-7.38	-8.50	-0.84	-3.20	1.42	0.19	-4.30	-0.11	-3.55	-1.13	2.13	-3.66	-5.99
	Apr	1.62	-2.63	5.67	8.01	-2.49	4.01	5.26	3.62	7.77	0.91	-2.95	-4.37	-1.47
	May	-0.60	-2.19	-2.38	3.05	-0.19	4.51	2.22	-2.11	0.77	-3.55	5.28	-0.94	0.59
	June	2.35	-2.35	-1.75	-3.28	-3.42	-8.54	-3.02	-8.74	-5.66	-8.97	-9.15	-13.59	-4.58
	July	-28.55	-33.80	-31.93	-25.20	-29.65	-29.77	-29.46	-29.47	-21.87	-25.14	-33.20	-20.38	-29.35
	Aug	-30.47	-37.00	-32.65	-19.46	-31.35	-24.88	-23.99	-24.62	-11.80	-17.75	-26.61	-2.03	-28.42
	Sept	-7.62	-4.57	-11.22	-8.57	-13.04	-11.47	0.99	1.04	5.64	3.20	1.08	-4.61	-0.48
	Oct	13.69	22.39	16.78	10.50	18.37	18.59	10.05	18.47	7.82	11.03	17.99	9.25	10.41
	Nov	12.75	18.66	20.35	6.27	20.40	11.29	11.89	14.57	2.64	10.92	12.42	3.37	17.16
	Dec	76.13	88.59	75.95	70.80	89.09	78.68	74.87	70.65	56.79	67.50	75.85	80.12	75.84
1928	Jan	-5.34	-15.23	-18.70	-19.50	-22.97	-23.14	-22.14	-22.38	-19.31	-16.01	-19.11	-14.08	-17.44
	Feb	-28.18	-25.15	-21.24	-21.46	-29.51	-19.45	-23.20	-20.36	-20.46	-20.79	-19.48	-27.78	-18.05
	Mar	-6.41	-7.90	0.34	-2.00	3.38	2.75	-2.72	1.44	0.05	0.22	4.07	-3.61	-5.01
	Apr	0.30	-3.00	4.71	7.25	-3.26	4.83	4.12	3.61	6.99	0.88	-2.41	-5.10	-1.56
	May	-0.60	-2.97	-2.73	3.17	0.22	4.28	2.13	-2.10	1.13	-3.74	5.06	-1.38	0.00
	June	1.67	-1.65	-1.66	-3.20	-3.40	-9.22	-3.25	-9.39	-6.22	-10.12	-10.52	-15.29	-4.40
	July	-30.37	-36.18	-33.30	-24.73	-32.05	-31.06	-33.11	-31.33	-21.76	-27.11	-35.09	-21.29	-31.56
	Aug	-27.12	-34.55	-28.98	-16.74	-30.01	-24.22	-23.99	-21.29	-9.49	-17.31	-25.23	-1.19	-27.39
	Sept	-6.08	-3.25	-10.82	-9.66	-13.16	-10.13	2.56	0.94	8.32	3.86	1.79	-3.77	1.25
	Oct	15.15	23.73	18.98	9.09	19.61	17.03	10.39	16.39	3.65	12.47	17.19	10.55	10.47
	Nov	12.69	17.86	18.65	5.19	19.52	10.85	11.74	14.34	2.15	10.53	13.20	2.72	15.80
	Dec	75.11	91.87	75.86	70.05	90.01	73.73	79.35	68.96	49.70	67.76	74.18	82.09	80.46

Table 5 (Continued)

Year	Month	Federal Reserve District 1	2	3	4	5	6	7	8	9	10	11	12	US
1929	Jan	-6.01	-17.05	-21.44	-20.91	-24.95	-26.40	-23.98	-22.36	-21.31	-17.41	-21.75	-15.69	-18.78
	Feb	-27.80	-26.27	-21.62	-20.99	-28.63	-19.44	-23.42	-20.46	-18.27	-20.35	-18.94	-27.65	-19.16
	Mar	-5.40	-7.26	2.11	-0.11	6.40	5.70	-0.92	3.70	4.38	2.27	6.69	-3.58	-3.65
	Apr	-0.56	-3.22	4.53	8.10	-3.90	6.36	3.56	3.52	10.20	0.78	-1.81	-6.05	-1.34
	May	-0.32	-4.15	-2.61	3.56	0.62	3.99	1.98	-1.70	1.75	-3.53	4.04	-1.55	-0.76
	June	0.47	-1.01	-1.88	-2.75	-3.35	-9.09	-3.29	-9.73	-7.09	-11.50	-11.49	-16.01	-4.02
	July	-31.76	-38.91	-32.93	-25.15	-34.24	-31.49	-34.91	-32.50	-23.97	-28.67	-37.64	-22.50	-32.27
	Aug	-28.65	-36.34	-30.69	-17.43	-31.00	-24.72	-25.03	-21.65	-8.90	-17.04	-25.80	-0.29	-29.18
	Sept	-3.90	-1.65	-9.59	-10.76	-12.61	-8.71	4.13	0.93	8.90	4.81	2.83	-2.93	3.53
	Oct	17.53	25.64	21.17	7.89	21.28	15.98	9.62	14.76	1.36	14.48	17.03	11.87	10.64
	Nov	12.61	16.93	17.74	4.18	18.67	9.87	11.00	14.13	1.67	10.49	13.49	1.18	14.63
	Dec	73.58	94.05	73.40	68.97	91.64	69.06	73.49	63.93	43.92	64.12	70.79	82.34	79.37
1930	Jan	-8.32	-19.42	-22.39	-20.26	-27.24	-23.74	-22.01	-19.85	-21.24	-16.70	-21.14	-15.90	-20.54
	Feb	-29.08	-26.93	-21.90	-19.77	-30.23	-20.05	-21.80	-20.26	-16.63	-20.10	-19.67	-27.42	-19.36
	Mar	-4.39	-6.04	3.95	1.98	9.37	7.95	1.07	5.95	8.42	4.21	9.01	-3.37	-1.68
	Apr	-0.96	-3.12	5.23	9.29	-4.08	8.84	3.19	3.20	14.86	1.13	-0.50	-7.16	-0.85
	May	0.16	-5.51	-2.47	3.65	0.81	3.80	1.49	-1.35	2.26	-3.12	2.61	-1.48	-1.39
	June	-0.48	-0.22	-1.88	-1.63	-2.64	-8.04	-2.27	-7.90	-7.77	-11.16	-11.84	-14.89	-2.82
	July	-31.15	-39.39	-31.06	-22.17	-34.33	-28.79	-29.94	-28.31	-23.81	-27.86	-34.86	-20.11	-30.43
	Aug	-26.41	-33.92	-27.03	-14.60	-29.06	-19.25	-19.56	-17.44	-8.59	-15.47	-22.76	0.56	-26.51
	Sept	-0.86	-0.15	-7.63	-11.05	-10.04	-7.07	4.47	0.34	10.04	4.84	3.47	-2.33	4.95
	Oct	17.01	24.70	20.30	5.54	22.26	14.63	7.38	12.19	0.51	15.68	14.72	12.43	9.58
	Nov	11.23	14.94	16.10	2.37	14.76	8.29	8.18	10.99	0.80	8.00	10.36	-0.59	11.84
	Dec	68.18	89.88	65.50	60.39	87.76	61.94	65.77	54.11	38.34	57.01	64.31	75.09	72.38

Table 5 (Continued)

Year	Month	Federal Reserve District 1	2	3	4	5	6	7	8	9	10	11	12	US
1931	Jan	-9.34	-19.84	-21.58	-19.74	-28.13	-23.12	-20.91	-17.39	-22.43	-17.39	-20.73	-15.60	-20.99
	Feb	-27.33	-26.69	-21.36	-17.10	-29.81	-17.66	-20.07	-17.06	-14.48	-17.70	-16.81	-24.57	-18.14
	Mar	-3.57	-5.27	5.65	3.72	12.44	9.15	2.90	7.66	11.83	5.60	9.35	-3.00	-0.11
	Apr	-1.43	-2.15	5.22	8.65	-3.68	8.60	2.77	1.67	16.36	1.09	0.40	-7.46	-0.25
	May	0.91	-5.19	-1.43	3.78	1.62	4.01	1.71	-0.74	1.99	-2.34	1.29	-1.23	-1.08
	June	-1.15	0.05	-2.30	-1.00	-2.43	-7.15	-2.12	-7.20	-8.07	-10.59	-10.99	-13.41	-2.31
	July	-29.30	-38.60	-29.63	-20.55	-34.91	-26.86	-29.14	-25.50	-24.51	-24.74	-29.54	-18.59	-29.22
	Aug	-23.18	-29.37	-22.89	-11.66	-26.04	-18.51	-17.43	-15.78	-7.78	-12.68	-18.80	1.22	-23.37
	Sept	1.54	0.91	-5.61	-9.54	-8.26	-4.69	4.16	-0.14	8.61	4.25	3.20	-1.68	5.35
	Oct	16.25	22.64	16.10	3.40	20.11	11.39	5.55	9.78	0.23	12.97	10.91	11.69	8.04
	Nov	9.11	13.09	12.22	1.20	11.46	6.75	6.17	10.24	0.39	5.11	7.92	-1.80	9.29
	Dec	60.13	82.27	54.70	50.46	79.74	51.40	55.00	46.35	32.68	44.85	50.88	62.75	63.11
1932	Jan	-8.40	-17.37	-18.33	-14.40	-24.07	-18.82	-15.79	-13.91	-19.04	-13.27	-15.76	-13.24	-17.58
	Feb	-24.22	-23.51	-19.35	-14.06	-27.80	-14.77	-16.33	-16.10	-11.16	-14.22	-12.67	-21.16	-15.84
	Mar	-2.46	-3.86	5.34	4.05	11.35	7.88	3.73	8.19	10.82	5.52	8.14	-2.63	0.70
	Apr	-1.23	-1.18	5.14	6.50	-2.53	6.55	2.28	0.15	13.51	0.84	0.87	-5.55	0.21
	May	1.01	-4.27	-0.71	2.99	1.77	3.16	1.52	-0.37	2.06	-1.63	0.40	-0.98	-0.72
	June	-1.01	0.24	-1.91	-0.32	-1.62	-4.43	-1.85	-4.76	-6.59	-6.91	-8.17	-9.52	-1.48
	July	-21.97	-28.28	-21.44	-13.20	-25.98	-19.04	-20.93	-17.82	-20.13	-18.31	-20.22	-13.18	-20.88
	Aug	-17.92	-24.35	-16.95	-7.28	-19.11	-15.14	-11.78	-10.94	-5.87	-9.18	-13.38	1.43	-17.45
	Sept	2.93	1.18	-3.79	-7.90	-6.19	-3.93	3.12	-0.75	8.64	3.67	3.29	-1.36	4.72
	Oct	13.08	17.92	13.16	1.61	15.79	8.51	3.71	7.27	-0.41	10.14	8.52	9.49	6.10
	Nov	6.95	10.72	9.69	0.63	8.78	5.58	4.69	8.49	0.59	3.23	6.14	-1.71	7.17
	Dec	48.98	63.75	43.20	36.68	62.29	39.23	39.54	34.18	24.67	33.46	39.91	50.42	48.68

Table 5 (Continued)

Year	Month	Federal Reserve District 1	2	3	4	5	6	7	8	9	10	11	12	US
1933	Jan	-7.24	-13.90	-15.29	-11.17	-20.70	-15.15	-12.32	-9.79	-15.98	-10.71	-12.66	-10.45	-14.05
	Feb	-18.51	-19.08	-15.22	-9.60	-22.15	-11.32	-11.08	-11.57	-8.59	-10.14	-9.53	-15.41	-12.03
	Mar	-1.45	-2.88	4.20	3.27	8.27	5.56	3.59	7.30	8.61	4.82	6.69	-2.18	0.78
	Apr	-1.35	-0.93	7.02	5.80	-2.43	5.68	2.16	-1.04	12.40	0.40	0.87	-5.11	0.37
	May	0.94	-4.43	-0.39	2.99	2.16	3.48	1.71	-0.23	3.21	-1.86	-0.07	-1.33	-0.67
	June	-0.78	0.26	-2.13	0.00	-1.40	-3.82	-2.33	-4.59	-6.34	-6.39	-8.92	-9.27	-1.41
	July	-22.93	-28.66	-21.64	-15.02	-26.50	-20.59	-21.33	-19.17	-21.21	-20.10	-23.34	-15.00	-21.86
	Aug	-20.92	-26.07	-19.39	-10.02	-22.10	-19.78	-13.79	-13.48	-5.85	-10.47	-17.43	1.62	-19.90
	Sept	3.86	1.48	-3.73	-10.24	-5.25	-3.77	3.11	-1.07	8.41	3.52	3.28	-1.52	5.05
	Oct	12.99	17.47	12.52	1.12	15.95	9.22	3.61	7.40	-1.57	9.96	8.32	8.88	5.93
	Nov	6.40	11.05	9.17	0.70	8.50	7.19	5.06	9.55	1.32	2.65	6.99	-1.81	7.27
	Dec	49.43	66.67	45.30	41.14	67.42	47.77	44.38	37.25	27.52	40.95	49.56	53.85	52.32
1934	Jan	-10.05	-16.61	-18.09	-14.81	-24.54	-20.17	-15.67	-11.61	-19.40	-13.26	-16.40	-12.89	-17.34
	Feb	-20.20	-20.58	-17.66	-11.49	-25.81	-15.38	-14.85	-14.75	-10.05	-11.43	-12.86	-17.23	-14.13
	Mar	-1.83	-3.57	5.87	6.01	12.05	9.22	6.91	12.33	11.33	7.38	10.51	-3.78	1.14
	Apr	-1.63	-1.21	8.01	6.06	-2.46	6.97	2.59	-2.25	11.36	-0.09	0.88	-4.70	0.49
	May	0.68	-4.91	-0.46	3.23	2.79	4.16	1.70	-0.33	4.75	-2.81	-0.55	-1.65	-0.91
	June	-0.52	0.21	-2.76	0.11	-1.63	-4.77	-3.19	-4.92	-6.76	-6.65	-11.76	-9.29	-1.58
	July	-22.22	-29.00	-22.62	-15.39	-30.42	-25.14	-23.61	-19.44	-22.12	-21.31	-25.74	-13.36	-22.20
	Aug	-20.26	-25.91	-19.80	-10.08	-23.43	-21.14	-14.30	-13.75	-5.64	-10.29	-17.97	1.50	-20.06
	Sept	4.03	1.77	-2.84	-10.56	-4.36	-4.32	3.39	-1.82	9.60	4.16	4.59	-2.00	5.42
	Oct	13.88	18.39	12.98	0.82	18.83	10.49	3.98	7.99	-2.68	9.77	8.07	10.56	6.31
	Nov	5.84	12.08	9.33	0.67	9.66	9.86	6.16	10.73	2.73	2.50	8.54	-1.85	8.09
	Dec	53.52	71.04	50.85	46.74	79.11	55.78	51.79	40.15	32.13	46.22	58.43	60.21	58.33

Table 5 (Continued)

Year	Month	Federal Reserve District 1	2	3	4	5	6	7	8	9	10	11	12	US
1935	Jan	-10.00	-16.98	-19.12	-16.82	-26.48	-22.19	-18.13	-11.26	-21.21	-13.83	-16.58	-14.69	-18.47
	Feb	-20.30	-20.95	-19.24	-10.37	-29.39	-15.78	-16.41	-15.04	-11.01	-12.24	-13.12	-18.39	-14.76
	Mar	-1.16	-2.99	4.68	5.52	10.46	8.33	8.40	12.88	11.29	7.72	9.97	-3.99	0.91
	Apr	-2.07	-1.55	10.68	6.56	-3.32	7.20	2.55	-2.68	12.13	-0.58	0.45	-5.27	0.52
	May	0.25	-4.93	-0.61	2.51	3.05	3.95	1.27	-0.60	4.87	-3.32	-1.25	-2.26	-1.14
	June	-0.24	-0.01	-3.19	-0.25	-1.84	-4.58	-4.14	-5.39	-7.18	-7.26	-12.93	-10.49	-1.84
	July	-24.08	-31.66	-25.12	-17.73	-34.86	-29.82	-27.44	-22.07	-24.97	-24.06	-28.75	-15.60	-25.07
	Aug	-19.79	-25.90	-20.16	-10.67	-24.68	-23.38	-15.55	-14.52	-6.36	-10.91	-19.44	1.29	-20.87
	Sept	4.34	2.50	-2.51	-11.35	-3.94	-4.30	3.91	-2.11	9.57	4.36	5.14	-2.60	6.03
	Oct	14.04	17.64	12.90	0.77	19.51	11.35	4.55	9.20	-3.05	9.90	7.76	11.33	6.47
	Nov	6.02	13.31	10.46	0.71	10.30	12.13	7.28	11.03	3.69	2.70	9.50	-1.41	8.99
	Dec	55.50	74.34	55.41	51.92	85.31	61.44	57.39	40.92	34.27	48.04	63.80	65.12	62.43
1936	Jan	-10.82	-18.88	-20.95	-16.06	-29.68	-25.20	-19.65	-11.38	-24.09	-14.83	-17.78	-15.98	-20.10
	Feb	-22.56	-23.71	-22.45	-12.04	-33.43	-18.61	-19.06	-17.07	-12.26	-12.93	-15.50	-20.85	-16.86
	Mar	-0.96	-2.85	4.95	5.74	10.73	8.56	10.63	14.23	12.67	8.70	10.51	-4.76	1.09
	Apr	-2.34	-2.19	11.71	6.85	-3.97	7.24	2.13	-3.05	13.41	-0.83	0.02	-5.21	0.24
	May	-0.56	-5.93	-1.18	1.74	3.02	4.06	0.13	-1.14	4.85	-4.73	-2.15	-2.88	-1.95
	June	-0.13	-0.10	-4.19	-1.11	-2.45	-5.78	-5.88	-6.50	-7.79	-8.14	-17.67	-12.41	-2.35
	July	-27.20	-36.45	-28.76	-20.46	-39.40	-33.51	-31.59	-22.97	-26.62	-24.95	-34.24	-17.12	-28.15
	Aug	-21.42	-26.84	-22.61	-12.83	-25.31	-26.03	-17.49	-15.13	-7.51	-10.65	-22.51	1.11	-22.55
	Sept	5.15	3.53	-1.64	-12.72	-2.88	-5.36	5.31	-3.23	11.18	4.64	6.13	-3.44	7.21
	Oct	15.65	18.59	13.26	0.81	21.90	12.59	5.72	12.34	-3.26	10.38	9.10	11.84	6.97
	Nov	6.84	14.98	11.78	0.96	10.55	14.49	8.29	11.66	4.14	3.19	11.07	-1.01	9.99
	Dec	61.99	83.75	64.87	65.83	95.59	73.95	70.47	48.31	38.96	54.21	77.45	76.97	72.59

Table 5 (Continued)

Year	Month	Federal Reserve District 1	2	3	4	5	6	7	8	9	10	11	12	US
1937	Jan	-12.16	-20.47	-23.50	-18.55	-32.41	-29.89	-24.95	-12.05	-27.06	-15.85	-18.75	-17.39	-22.66
	Feb	-23.04	-25.30	-23.96	-13.59	-35.50	-19.62	-22.30	-18.37	-14.49	-13.77	-17.15	-22.69	-18.50
	Mar	-0.83	-2.87	5.58	7.98	12.65	10.09	14.50	17.61	15.72	10.44	12.09	-5.60	1.57
	Apr	-2.50	-2.84	11.95	6.78	-4.74	6.90	1.35	-2.92	13.22	-0.87	-0.82	-5.48	-0.39
	May	-1.49	-7.17	-1.85	0.80	2.73	3.99	-1.40	-1.86	3.81	-6.04	-3.11	-3.74	-2.92
	June	-0.07	-0.01	-5.06	-2.31	-3.10	-6.34	-7.00	-7.73	-8.19	-8.54	-18.39	-12.91	-2.67
	July	-27.36	-36.73	-28.77	-23.07	-38.42	-35.34	-34.73	-24.39	-28.40	-26.37	-36.78	-17.78	-29.24
	Aug	-22.24	-28.33	-23.16	-14.76	-26.60	-27.88	-19.17	-17.05	-7.82	-11.63	-24.13	1.06	-23.89
	Sept	5.55	4.80	-0.86	-13.30	-1.81	-5.94	6.93	-4.04	12.96	5.01	6.97	-3.40	8.24
	Oct	15.23	17.07	12.24	0.88	20.98	12.82	6.04	12.85	-3.06	9.53	8.33	10.87	6.49
	Nov	7.45	15.62	13.10	1.26	10.49	16.05	8.18	11.34	3.89	3.90	12.78	-0.96	10.37
	Dec	59.99	83.30	62.71	64.63	97.40	77.84	70.51	46.26	37.33	52.37	82.24	74.82	71.99
1938	Jan	-11.79	-20.13	-22.67	-18.79	-32.52	-30.82	-23.67	-12.22	-26.97	-15.46	-19.91	-16.92	-22.23
	Feb	-21.42	-24.12	-23.03	-11.43	-35.11	-20.68	-20.24	-18.19	-14.34	-12.95	-18.01	-20.65	-17.28
	Mar	-0.71	-2.30	4.31	6.42	11.06	8.97	13.19	15.52	14.98	9.62	11.36	-4.32	1.63
	Apr	-2.79	-3.33	10.52	5.72	-6.01	6.29	0.29	-2.45	14.43	-0.76	-1.38	-5.92	-0.97
	May	-1.79	-6.48	-1.59	-0.12	2.10	3.44	-2.14	-1.84	3.08	-5.72	-3.05	-3.54	-2.89
	June	-0.07	0.09	-4.55	-2.57	-3.45	-5.96	-5.57	-7.23	-8.01	-7.97	-18.53	-12.19	-2.50
	July	-24.89	-31.58	-24.76	-18.87	-36.52	-34.14	-29.34	-22.53	-26.99	-23.98	-34.25	-16.02	-25.78
	Aug	-23.52	-26.37	-20.91	-13.04	-27.07	-27.97	-18.24	-16.93	-7.70	-11.00	-23.31	1.12	-22.74
	Sept	5.53	5.41	0.15	-10.37	-0.30	-5.55	7.28	-4.00	13.53	4.49	6.55	-2.76	8.14
	Oct	14.62	14.21	10.05	0.73	19.05	12.39	5.28	12.51	-3.53	8.61	7.29	9.36	5.42
	Nov	8.30	15.29	12.54	1.30	10.31	17.00	7.44	11.67	3.71	4.19	12.19	-1.35	10.19
	Dec	62.56	81.81	62.01	65.38	98.85	83.08	71.44	48.19	38.31	52.60	81.11	75.55	72.48

Table 5 (Continued)

Year	Month	Federal Reserve District 1	2	3	4	5	6	7	8	9	10	11	12	US
1939	Jan	-11.42	-18.51	-21.75	-18.66	-31.69	-32.67	-23.87	-12.46	-27.78	-15.62	-19.51	-17.26	-21.98
	Feb	-21.85	-22.75	-21.59	-11.28	-34.39	-21.63	-19.94	-18.18	-14.22	-12.40	-17.46	-21.60	-17.09
	Mar	-0.66	-2.31	4.78	6.87	12.13	9.94	14.33	16.37	15.81	9.68	11.30	-4.25	1.85
	Apr	-2.98	-3.34	10.42	5.50	-6.26	5.90	-0.33	-2.23	14.20	-0.73	-1.85	-6.02	-1.26
	May	-2.20	-7.11	-2.02	-0.43	2.48	3.88	-2.95	-2.23	3.14	-6.25	-3.20	-3.74	-3.45
	June	0.03	0.12	-4.77	-3.29	-3.74	-6.60	-6.00	-8.06	-8.40	-8.44	-18.81	-12.62	-2.71
	July	-26.87	-32.31	-25.68	-20.47	-37.26	-37.82	-30.72	-24.02	-27.51	-24.48	-34.51	-16.62	-26.74
	Aug	-23.95	-28.05	-22.14	-14.89	-28.91	-31.99	-19.72	-19.15	-8.15	-11.87	-23.26	1.40	-24.44
	Sept	6.53	6.07	0.58	-10.73	0.39	-5.53	8.41	-4.23	15.22	4.80	6.58	-3.00	9.14
	Oct	14.59	14.43	10.23	0.78	19.59	13.09	5.88	13.41	-4.16	8.34	7.50	9.37	5.55
	Nov	8.77	16.83	14.91	1.45	11.29	19.05	7.45	12.39	3.50	4.32	12.17	-1.43	10.83
	Dec	63.98	82.81	64.19	71.79	103.2	90.11	76.25	50.21	42.01	54.33	83.77	76.73	75.71

Notes: (a) Not available for January 1919 through December 1920.
(b) Not available for January 1919 through December 1923.
Source*:* Seasonal component extracted from Table 2 by procedure described in text.

Table 6: Growth Rate of Retail Trade by Federal Reserve District, Annual 1919 to 1939

	Federal Reserve District												
Year	1	2	3	4	5	6	7	8	9	10	11	12	US
1920	18.81	23.39	20.34	29.16	11.92	22.57	23.04	(a)	12.26	(b)	22.58	25.14	23.05
1921	-2.22	-4.92	-4.35	-11.17	-4.55	-14.84	-9.59		-7.03		-16.78	-4.52	-7.75
1922	3.30	2.21	1.34	0.61	-3.33	-6.19	2.78	-0.37	-4.99		-7.63	4.24	1.41
1923	6.68	7.73	11.03	16.56	12.65	11.80	17.54	11.26	7.36		6.32	15.77	11.71
1924	1.85	4.17	-0.59	-1.18	2.37	-2.38	-0.81	-1.19	-0.27		3.76	4.02	-0.01
1925	1.82	4.91	0.45	2.16	5.59	3.04	5.41	5.17	3.72	5.78	4.52	5.64	4.94
1926	2.78	4.19	1.58	2.21	3.19	5.14	6.09	1.83	-2.90	-5.05	5.17	5.09	3.33
1927	1.96	2.02	-3.92	1.58	-2.13	1.03	1.13	-1.38	-2.18	0.46	-3.11	2.42	-0.32
1928	-1.68	1.44	-1.79	-0.97	1.30	0.51	5.84	1.34	-8.29	1.84	2.44	3.39	2.06
1929	1.39	3.95	0.33	1.77	3.06	-2.07	2.73	0.53	-2.60	3.17	1.15	2.61	2.06
1930	-2.92	-1.17	-5.08	-8.42	-1.50	-8.08	-12.08	-10.17	-5.25	-4.67	-7.17	-5.75	-5.58
1931	-8.08	-7.92	-12.08	-13.08	-5.67	-13.00	-11.17	-11.83	-8.58	-12.67	-16.42	-10.92	-10.17
1932	-20.50	-20.83	-20.92	-26.67	-19.50	-23.92	-24.75	-22.08	-20.58	-22.67	-24.00	-23.50	-22.33
1933	-7.42	-6.58	-3.67	0.25	-4.50	-1.17	-4.83	-4.17	-4.83	-1.58	2.17	-5.75	-5.00
1934	7.08	6.75	9.58	18.42	17.58	26.75	18.17	16.25	10.83	16.33	24.33	10.25	12.17
1935	0.92	1.75	4.00	5.58	8.00	7.25	8.08	1.75	6.92	5.75	7.04	10.21	5.33
1936	10.25	9.75	10.25	14.83	9.75	14.67	14.17	11.33	9.67	8.17	18.75	10.83	11.50
1937	2.67	4.42	3.58	10.75	4.17	9.83	9.42	7.25	4.17	5.08	9.42	5.33	6.00
1938	-4.08	-7.58	-12.92	-12.92	-3.50	-0.67	-11.92	-4.83	-2.67	-6.25	-2.67	-7.17	-8.17
1939	3.08	1.83	5.42	8.33	4.25	9.67	5.58	5.92	4.33	1.25	0.58	2.75	4.42

Notes: (a) Not available for 1920 and 1921.
(b) Not available for 1920 through 1924.
Source: See Section 3.3.

Table 7: Population (1,000s) by Federal Reserve District, July 1st, 1919 to 1939

	Federal Reserve District												
Year	1	2	3	4	5	6	7	8	9	10	11	12	US
1919	6,990	13,003	6,704	9,794	9,722	9,806	15,163	9,095	5,002	6,987	5,642	6,602	104,510
1920	7,131	13,090	6,772	9,959	9,823	10,005	15,644	9,190	5,118	7,070	5,764	6,898	106,463
1921	7,244	13,308	6,897	10,151	9,989	10,181	16,041	9,262	5,172	7,188	5,910	7,198	108,540
1922	7,333	13,551	6,966	10,327	10,087	10,317	16,269	9,282	5,194	7,265	6,022	7,440	110,054
1923	7,414	13,792	7,097	10,537	10,206	10,445	16,603	9,346	5,239	7,342	6,156	7,774	111,950
1924	7,503	14,079	7,279	10,788	10,353	10,572	16,958	9,455	5,273	7,435	6,303	8,119	114,117
1925	7,590	14,391	7,363	10,940	10,461	10,722	17,240	9,481	5,299	7,523	6,438	8,381	115,829
1926	7,655	14,542	7,463	11,072	10,584	10,891	17,519	9,534	5,322	7,602	6,573	8,647	117,404
1927	7,705	14,570	7,595	11,213	10,748	11,075	17,857	9,588	5,349	7,695	6,711	8,930	119,038
1928	7,718	15,062	7,653	11,282	10,844	11,166	18,050	9,612	5,368	7,759	6,818	9,167	120,500
1929	7,748	15,656	7,606	11,303	10,919	11,187	18,272	9,625	5,339	7,824	6,911	9,380	121,769
1930	7,787	16,199	7,575	11,333	10,995	11,245	18,426	9,638	5,357	7,930	6,999	9,591	123,075
1931	7,801	16,445	7,627	11,401	11,083	11,322	18,562	9,704	5,398	7,967	7,073	9,737	124,119
1932	7,825	16,600	7,667	11,457	11,165	11,434	18,637	9,763	5,427	7,978	7,140	9,825	124,919
1933	7,857	16,716	7,679	11,500	11,256	11,547	18,704	9,846	5,452	7,979	7,206	9,917	125,659
1934	7,896	16,832	7,683	11,531	11,399	11,675	18,762	9,913	5,470	7,975	7,260	10,054	126,450
1935	7,957	16,955	7,669	11,577	11,542	11,767	18,858	9,964	5,490	7,979	7,348	10,223	127,328
1936	7,984	17,062	7,664	11,602	11,660	11,870	18,949	9,991	5,500	7,956	7,433	10,460	128,130
1937	8,000	17,097	7,680	11,628	11,760	12,028	19,052	10,019	5,497	7,911	7,503	10,722	128,897
1938	8,016	17,109	7,792	11,722	11,944	12,232	19,155	10,073	5,492	7,881	7,572	10,910	129,899
1939	8,024	17,145	7,769	11,772	12,172	12,450	19,327	10,150	5,514	7,873	7,659	11,102	130,957

Source: See Section 3.4.

Table 8: Growth Rate of Population by Federal Reserve District, Annual 1919 to 1939

	Federal Reserve District												
Year	1	2	3	4	5	6	7	8	9	10	11	12	US
1920	2.02	0.67	1.02	1.69	1.03	2.03	3.17	1.04	2.33	1.18	2.16	4.48	1.87
1921	1.59	1.66	1.84	1.92	1.69	1.76	2.54	0.78	1.05	1.67	2.54	4.36	1.95
1922	1.23	1.82	1.01	1.74	0.98	1.34	1.43	0.22	0.43	1.08	1.89	3.37	1.39
1923	1.11	1.78	1.88	2.03	1.18	1.24	2.05	0.69	0.86	1.06	2.23	4.48	1.72
1924	1.20	2.08	2.56	2.39	1.44	1.22	2.14	1.17	0.66	1.26	2.39	4.44	1.94
1925	1.16	2.21	1.17	1.41	1.05	1.42	1.67	0.28	0.48	1.18	2.15	3.23	1.50
1926	0.85	1.05	1.35	1.21	1.17	1.57	1.62	0.56	0.44	1.05	2.09	3.18	1.36
1927	0.66	0.19	1.78	1.27	1.55	1.69	1.92	0.57	0.51	1.23	2.11	3.28	1.39
1928	0.17	3.37	0.75	0.62	0.90	0.82	1.09	0.25	0.35	0.84	1.59	2.65	1.23
1929	0.38	3.94	-0.61	0.19	0.69	0.18	1.23	0.13	-0.54	0.83	1.37	2.33	1.05
1930	0.50	3.47	-0.40	0.27	0.70	0.52	0.85	0.13	0.34	1.35	1.26	2.25	1.07
1931	0.18	1.51	0.69	0.60	0.80	0.68	0.74	0.69	0.76	0.47	1.06	1.52	0.85
1932	0.31	0.95	0.52	0.49	0.74	0.99	0.41	0.61	0.53	0.14	0.95	0.91	0.64
1933	0.41	0.70	0.16	0.37	0.81	0.99	0.36	0.84	0.47	0.01	0.92	0.93	0.59
1934	0.50	0.69	0.05	0.27	1.26	1.11	0.31	0.69	0.32	-0.04	0.76	1.38	0.63
1935	0.77	0.73	-0.18	0.40	1.26	0.78	0.51	0.51	0.37	0.05	1.21	1.68	0.69
1936	0.35	0.63	-0.07	0.22	1.02	0.88	0.48	0.27	0.19	-0.29	1.15	2.32	0.63
1937	0.20	0.20	0.21	0.23	0.86	1.34	0.54	0.28	-0.06	-0.56	0.95	2.50	0.60
1938	0.20	0.07	1.46	0.81	1.56	1.70	0.54	0.54	-0.09	-0.38	0.92	1.75	0.78
1939	0.09	0.21	-0.29	0.43	1.91	1.78	0.90	0.76	0.40	-0.11	1.15	1.76	0.81

Source: See Section 3.4.

Table 9: Growth Rate of Per Capita Retail Trade by Federal Reserve District, Annual 1919 to 1939

Year	Federal Reserve District												US
	1	2	3	4	5	6	7	8	9	10	11	12	
1920	18.81	23.39	20.34	29.16	11.92	22.57	23.04	(a)	12.26	(b)	22.58	25.14	23.05
1921	-2.22	-4.92	-4.35	-11.17	-4.55	-14.84	-9.59		-7.03		-16.78	-4.52	-7.75
1922	3.30	2.21	1.34	0.61	-3.33	-6.19	2.78	-0.37	-4.99		-7.63	4.24	1.41
1923	6.68	7.73	11.03	16.56	12.65	11.80	17.54	11.26	7.36		6.32	15.77	11.71
1924	1.85	4.17	-0.59	-1.18	2.37	-2.38	-0.81	-1.19	-0.27		3.76	4.02	-0.01
1925	1.82	4.91	0.45	2.16	5.59	3.04	5.41	5.17	3.72	5.78	4.52	5.64	4.94
1926	2.78	4.19	1.58	2.21	3.19	5.14	6.09	1.83	-2.90	-5.05	5.17	5.09	3.33
1927	1.96	2.02	-3.92	1.58	-2.13	1.03	1.13	-1.38	-2.18	0.46	-3.11	2.42	-0.32
1928	-1.68	1.44	-1.79	-0.97	1.30	0.51	5.84	1.34	-8.29	1.84	2.44	3.39	2.06
1929	1.39	3.95	0.33	1.77	3.06	-2.07	2.73	0.53	-2.60	3.17	1.15	2.61	2.06
1930	-2.92	-1.17	-5.08	-8.42	-1.50	-8.08	-12.08	-10.17	-5.25	-4.67	-7.17	-5.75	-5.58
1931	-8.08	-7.92	-12.08	-13.08	-5.67	-13.00	-11.17	-11.83	-8.58	-12.67	-16.42	-10.92	-10.17
1932	-20.50	-20.83	-20.92	-26.67	-19.50	-23.92	-24.75	-22.08	-20.58	-22.67	-24.00	-23.50	-22.33
1933	-7.42	-6.58	-3.67	0.25	-4.50	-1.17	-4.83	-4.17	-4.83	-1.58	2.17	-5.75	-5.00
1934	7.08	6.75	9.58	18.42	17.58	26.75	18.17	16.25	10.83	16.33	24.33	10.25	12.17
1935	0.92	1.75	4.00	5.58	8.00	7.25	8.08	1.75	6.92	5.75	7.04	10.21	5.33
1936	10.25	9.75	10.25	14.83	9.75	14.67	14.17	11.33	9.67	8.17	18.75	10.83	11.50
1937	2.67	4.42	3.58	10.75	4.17	9.83	9.42	7.25	4.17	5.08	9.42	5.33	6.00
1938	-4.08	-7.58	-12.92	-12.92	-3.50	-0.67	-11.92	-4.83	-2.67	-6.25	-2.67	-7.17	-8.17
1939	3.08	1.83	5.42	8.33	4.25	9.67	5.58	5.92	4.33	1.25	0.58	2.75	4.42

Notes: (a) Not available for 1920 through 1921.
(b) Not available for 1920 through 1924.
Source: See Section 3.5.

Table 10: Summary Statistics for Retail Trade Indices

	Federal Reserve District												
	Boston (1)	New York (2)	Philadelphia (3)	Cleveland (4)	Richmond (5)	Atlanta (6)	Chicago (7)	St. Louis (8)	Minneapolis (9)	Kansas City (10)	Dallas (11)	San Francisco (12)	United States
Final Data, Unadjusted													
Maximum	182	211	180	177	218	209	200	177	161	168	195	200	192
Year	26 27	29	26	26	39	39	28	25	25	28	39	29 28	28
Minimum	46	50	38	42	50	40	45	40	36	41	38	52	46
Month.Year	3.33	7.33	7.32	1.33	7.32 7.33	7.32	7.33	7.32	7.32 7.33	7.32	7.32	2.33	7.32
St. Dev.	27	32	28	26	33	30	28	26	23	24	30	27	28
Final Data, Seasonally Adjusted													
Maximum	114	124	108	112	122	122	125	118	117	111	118	122	113
Month.Year	8.27	5.30	10.25	8.27	3.37	8.39	9.29	10.25	10.25	10.25	8.26	7.29	8.27 8.29
Minimum	58	72	52	48	65	49	55	51	52	55	55	61	59
Month.Year	1.33	1.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33
St. Dev.	14	13	15	15	11	16	16	15	15	12	16	15	13

Source: Authors' calculations.

Table 11: Correlations Across Districts, Per Capita Retail Trade Index, 1919 to 1939

	Federal Reserve District												
	Boston (1)	New York (2)	Philadelphia (3)	Cleveland (4)	Richmond (5)	Atlanta (6)	Chicago (7)	St. Louis (8)	Minneapolis (9)	Kansas City (10)	Dallas (11)	San Francisco (12)	United States
Final Data, Unadjusted													
1	1.00	0.96	0.96	0.93	0.89	0.87	0.92	0.94	0.82	0.95	0.87	0.88	0.97
2	0.96	1.00	0.91	0.90	0.94	0.87	0.94	0.90	0.72	0.94	0.87	0.91	0.97
3	0.96	0.91	1.00	0.94	0.86	0.89	0.89	0.96	0.88	0.95	0.87	0.81	0.94
4	0.93	0.90	0.94	1.00	0.88	0.93	0.95	0.96	0.87	0.96	0.91	0.90	0.95
5	0.89	0.94	0.86	0.88	1.00	0.92	0.92	0.86	0.69	0.91	0.91	0.88	0.94
6	0.87	0.87	0.89	0.93	0.92	1.00	0.91	0.91	0.83	0.91	0.97	0.82	0.92
7	0.92	0.94	0.89	0.95	0.92	0.91	1.00	0.93	0.77	0.97	0.91	0.93	0.97
8	0.94	0.90	0.96	0.96	0.86	0.91	0.93	1.00	0.91	0.97	0.91	0.87	0.95
9	0.82	0.72	0.88	0.87	0.69	0.83	0.77	0.91	1.00	0.91	0.82	0.67	0.81
10	0.95	0.94	0.95	0.96	0.91	0.91	0.97	0.97	0.91	1.00	0.94	0.94	0.97
11	0.87	0.87	0.87	0.91	0.91	0.97	0.91	0.91	0.82	0.94	1.00	0.82	0.92
12	0.88	0.91	0.81	0.90	0.88	0.82	0.93	0.87	0.67	0.94	0.82	1.00	0.91
U.S.	0.97	0.97	0.94	0.95	0.94	0.92	0.97	0.95	0.81	0.97	0.92	0.91	1.00
Final Data, Seasonally Adjusted													
1	1.00	0.88	0.91	0.89	0.54	0.61	0.82	0.93	0.73	0.91	0.59	0.81	0.93
2	0.88	1.00	0.70	0.80	0.73	0.53	0.89	0.80	0.41	0.89	0.54	0.94	0.92
3	0.91	0.70	1.00	0.89	0.39	0.64	0.71	0.93	0.88	0.92	0.61	0.62	0.84
4	0.89	0.80	0.89	1.00	0.69	0.83	0.89	0.96	0.78	0.96	0.81	0.80	0.95
5	0.54	0.73	0.39	0.69	1.00	0.72	0.84	0.58	0.23	0.75	0.72	0.82	0.76
6	0.61	0.53	0.64	0.83	0.72	1.00	0.75	0.79	0.69	0.80	0.95	0.59	0.76
7	0.82	0.89	0.71	0.89	0.84	0.75	1.00	0.86	0.51	0.93	0.74	0.93	0.95
8	0.93	0.80	0.93	0.96	0.58	0.79	0.86	1.00	0.90	0.96	0.77	0.80	0.93
9	0.73	0.41	0.88	0.78	0.23	0.69	0.51	0.90	1.00	0.91	0.67	0.35	0.65
10	0.91	0.89	0.92	0.96	0.75	0.80	0.93	0.96	0.91	1.00	0.83	0.93	0.96
11	0.59	0.54	0.61	0.81	0.72	0.95	0.74	0.77	0.67	0.83	1.00	0.59	0.75
12	0.81	0.94	0.62	0.80	0.82	0.59	0.93	0.80	0.35	0.93	0.59	1.00	0.91
U.S.	0.93	0.92	0.84	0.95	0.76	0.76	0.95	0.93	0.65	0.96	0.75	0.91	1.00

Notes: Entries enclosed in a shaded box indicate correlation coefficients less than 0.70.
Sources: Author's calculations.

Table 12: Growth in Retail Trade by District

		Federal Reserve District												
		Boston (1)	New York (2)	Philadelphia (3)	Cleveland (4)	Richmond (5)	Atlanta (6)	Chicago (7)	St. Louis (8)	Minneapolis (9)	Kansas City (10)	Dallas (11)	San Francisco (12)	United States
	Average													
1	All	0.78	1.47	0.13	1.89	1.96	2.00	2.24	0.37	-0.55	-0.34	1.52	2.50	1.43
2	1921 to 1939	-0.05	0.61	-0.74	1.10	1.77	1.79	1.74	0.37	-0.90	-0.34	1.37	1.64	0.74
3	1920s	1.29	2.45	-0.10	0.32	1.66	-1.20	1.90	0.78	-2.24	0.26	-1.13	3.29	1.19
4	1930s	-1.79	-2.05	-1.86	0.61	1.18	3.27	0.31	-0.05	-0.08	-0.73	2.13	-0.88	-0.69
5	1930 to1933	-12.0	-11.8	-12.2	-13.2	-9.9	-12.7	-13.6	-12.7	-11.3	-12.3	-12.8	-13.4	-12.5
6	1933 to 1939	3.32	2.82	3.32	7.50	6.71	11.25	7.25	6.28	5.54	5.06	9.58	5.37	5.21
	Standard Deviation													
7	All	7.83	8.70	9.24	12.75	8.18	12.26	11.95	9.12	8.03	9.27	12.38	10.37	9.80
8	1920s	2.89	3.51	4.59	7.36	5.04	7.42	8.35	5.70	4.81	4.33	7.43	5.87	5.38
9	1930s	9.36	9.53	11.11	15.09	10.82	15.08	14.22	12.00	10.14	11.75	15.41	11.79	11.48
10	Maximum	10.3	9.8	11.0	18.4	17.6	26.8	18.2	16.3	10.8	16.3	24.3	15.8	12.2
11	Year	1936	1936	1923	1934	1934	1934	1934	1934	1934	1934	1934	1923	1934
12	Minimum	-20.5	-20.8	-20.9	-26.7	-19.5	-23.9	-24.8	-22.1	-20.6	-22.7	-24.0	-23.5	-22.3
13	Year	1932	1932	1932	1932	1932	1932	1932	1932	1932	1932	1932	1932	1932

Source: Authors' calculations.

Table 13: Growth in Per Capita Retail Trade

		Federal Reserve District												
		Boston (1)	New York (2)	Philadelphia (3)	Cleveland (4)	Richmond (5)	Atlanta (6)	Chicago (7)	St. Louis (8)	Minneapolis (9)	Kansas City (10)	Dallas (11)	San Francisco (12)	United States
	Average													
1	All	-0.16	-0.10	-0.79	0.51	0.66	0.47	0.83	-0.43	-1.13	-0.91	-0.33	-0.47	0.11
2	1921 to 1939	-0.79	-0.85	-1.47	-0.09	0.52	0.44	0.53	-0.43	-1.33	-0.91	-0.29	-0.98	-0.39
3	1920s	0.31	0.26	-1.28	-1.26	0.42	-2.51	0.10	0.04	-2.81	-0.94	-3.15	-0.17	-0.34
4	1930s	-2.29	-2.68	-2.20	-0.27	-0.14	1.80	-0.39	-0.91	-0.46	-0.89	0.82	-2.73	-1.48
5	1930 to1933	-12.4	-12.7	-12.9	-14.2	-10.8	-13.7	-14.3	-13.6	-12.0	-12.8	-13.7	-14.5	-13.2
6	1933 to 1939	2.8	2.3	3.1	6.7	5.2	9.6	6.5	5.4	5.3	5.0	8.1	3.1	4.4
	Standard Deviation													
7	All	7.24	8.26	9.03	12.25	8.02	11.71	11.48	9.03	7.88	9.30	11.89	9.19	9.34
8	1920s	2.72	3.65	4.39	7.02	4.98	7.22	8.03	5.53	4.67	4.32	7.21	5.42	5.33
9	1930s	9.19	9.57	11.42	14.85	10.62	14.65	14.02	11.92	10.23	11.82	15.04	11.16	11.32
10	Maximum	10.0	9.2	10.5	16.7	16.4	24.0	17.1	14.7	10.7	15.9	22.2	10.4	11.1
11	Year	1936	1936	1936	1934	1934	1934	1934	1934	1934	1934	1934	1923	1934
12	Minimum	-20.6	-21.8	-21.1	-26.9	-20.2	-24.8	-25.0	-22.7	-20.9	-22.8	-24.5	-24.1	-22.7
13	Year	1932	1932	1932	1932	1932	1932	1932	1932	1932	1932	1932	1932	1932

Source: Authors' calculations.

Table 14: Regional Variation in Retail Trade

	Growth of Retail Trade					Growth of Per Capita Retail Trade				
	North East (1, 2, 3)	Great Lakes (4, 7)	Great Plains (8, 9, 10)	South (5, 6, 11)	Pacific (12)	North East (1, 2, 3)	Great Lakes (4, 7)	Great Plains (8, 9, 10)	South (5, 6, 11)	Pacific (12)
Average										
All	0.80	2.07	0.12	1.83	2.50	-0.35	0.67	-0.63	0.27	-0.47
1921 to 1939	-0.06	1.42	-0.16	1.64	1.64	-1.04	0.22	-0.77	0.22	-0.98
1920s	1.22	1.11	-0.73	-0.22	3.29	-0.24	-0.58	-1.55	-1.74	-0.17
1930s	-1.90	0.46	-0.29	2.19	-0.88	-2.39	-0.33	-0.75	0.83	-2.73
Standard Deviation										
All	8.45	12.26	8.50	10.70	10.37	8.01	11.78	8.36	10.32	9.19
1920s	3.46	7.74	4.89	6.32	5.87	3.35	7.41	4.82	6.19	5.42
1930s	9.87	14.61	11.18	13.58	11.79	9.89	14.40	11.22	13.27	11.16
Maximum	10.1	18.3	14.5	22.9	15.8	9.9	16.9	13.8	20.9	10.4
Year	1936	1934	1934	1934	1923	1936	1934	1934	1934	1923
Minimum	-20.8	-25.7	-21.8	-22.5	-23.5	-21.1	-26.0	-22.1	-23.2	-24.1
Year	1932	1932	1932	1932	1932	1932	1932	1932	1932	1932

Source: Authors' calculations.

Table 15: Business Cycle Reference Dates

Business Cycle Reference Dates		Duration in Months			
Peak	Trough	Contraction	Expansion	Cycle	
Quarter in Parenthesis		Peak to Trough	Previous trough to this peak	Trough from previous trough	Peak from previous peak
(1)	(2)	(3)	(4)	(5)	(6)
Jan 1920 (I)	Jul 1921 (III)	18	10	28	17
May 1923 (II)	Jul 1924 (III)	14	22	36	40
Oct 1926 (III)	Nov 1927 (IV)	13	27	40	41
Aug 1929 (III)	Mar 1933 (I)	43	21	64	34
May 1937 (II)	Jun 1938 (II)	13	50	63	93

Source: National Bureau of Economic Research.

Table 16: Summary Statistics for Moving Averages of Month to Month Growth Rates during the Recessions, 1920 to1939

	Federal Reserve District												
	Boston (1)	New York (2)	Philadelphia (3)	Cleveland (4)	Richmond (5)	Atlanta (6)	Chicago (7)	St. Louis (8)	Minneapolis (9)	Kansas City (20)	Dallas (11)	San Francisco (12)	United States
1921-1922													
Average	5.3	5.0	5.8	7.6	4.0	2.0	4.9	(a)	2.9	(b)	-0.1	6.7	5.4
Maximum	17.4	21.2	18.9	27.3	11.4	20.2	20.4		20.7		20.0	23.1	21.4
Month.Year	7.20	7.20	7.20	7.20	7.20	7.20	7.20		7.20		7.20	7.20	7.20
Minimum	-3.9	-5.8	-6.1	-16.1	-8.8	-17.9	-9.7	-20.0	-11.2		-18.3	-6.6	-9.8
Month.Year	9.21	9.21	9.21	9.21	9.21	9.21	9.21	9.21	9.21		9.21	9.21	9.21
1923-1924													
Average	5.1	6.4	6.1	8.2	7.5	5.6	8.8	4.8	3.2		5.3	20.7	6.7
Maximum	8.3	8.3	11.4	17.8	12.4	11.4	18.0	11.6	8.2		6.4	16.0	12.4
Month.Year	2.23	8.23	5.23	3.23	7.23	7.23	5.23	3.23	5.23		8.23	4.23	3.23
Minimum	-1.2	2.9	-3.1	-3.2	1.4	-3.5	-2.0	-1.8	-3.0		2.1	1.2	-0.8
Month.Year	11.24	11.24	11.24	11.24	9.26	9.24	9.24	9.24	9.26		20.25	9.24	9-10.24
1926-1927													
Average	2.0	2.6	-2.4	2.4	-0.6	1.4	2.2	-0.7	-3.4	-0.7	-0.5	3.4	0.7
Maximum	3.8	5.8	2.8	4.2	6.7	6.7	9.0	5.9	4.0	6.7	5.7	6.9	5.8
Month.Year	3.26	2.26	2.26	2.27	9.25	4.26	3.26	9.25	5.25	4.25	20.24	9.25	9.25
Minimum	-1.9	0.9	-4.0	-1.4	-2.0	-3.7	0.5	-1.7	-7.5	-2.7	-2.7	1.4	-0.4
Month.Year	3.28	3.28	11.27	3.28	7.27	8.29	4.27	4.27	6.28	7.26	6.27	7.29	9.27
1929-33													
Average	-9.4	-8.5	-11.1	-13.7	-7.6	-13.4	-14.0	-13.0	-20.5	-11.3	-13.2	-11.5	-11.0
Maximum	2.9	4.2	0.8	1.9	3.8	2.7	6.8	1.8	-2.2	3.3	2.9	4.0	2.9
Month.Year	11.29	4.29	3.29	3.29	20.29	2.28	11.28	12.27	10.29	1.29	6.28	7.28	9.28
Minimum	-22.3	-21.7	-22.2	-27.7	-21.1	-24.8	-26.0	-24.7	-21.1	-23.0	-25.5	-25.2	-23.6
Month.Year	9.32	9.32	9.32	9.32	9.32	9.32	9.32	9.32	9.32	9.32	7.32	9.32	9.32
1937-38													
Average	-1.5	-1.3	-4.3	-1.3	0.3	4.5	-1.6	0.7	0.4	-0.6	4.6	-1.2	-1.2
Maximum	20.4	9.6	20.6	21.7	16.9	26.3	17.6	15.8	20.7	16.7	24.1	12.1	12.2
Month.Year	7.36	7.36	9.36	12.33	6.34	6.34	6.34	6.34	6.34	6.34	6.34	4.35	9.36
Minimum	-4.7	-7.8	-12.3	-12.4	-3.5	-0.3	-11.1	-5.8	-3.0	-6.1	-3.6	-6.9	-7.7
Month.Year	4.38	8.38	6.38	5.38	8.38	6.38	6.38	4.38	4.38	6.38	9.38	6.38	6.38

Notes: (a) Not available for 1920 and 1921.
(b) Not available for 1920 through 1924.
Source: Authors' calculations.

Table 17: Summary Statistics for Retail Trade Indices during Recessions, 1920 to1939

	Federal Reserve District												
	Boston (1)	New York (2)	Philadelphia (3)	Cleveland (4)	Richmond (5)	Atlanta (6)	Chicago (7)	St. Louis (8)	Minneapolis (9)	Kansas City (20)	Dallas (11)	San Francisco (12)	United States
1921-1922													
Average	91	90	92	95	92	209	88	(a)	203	(b)	112	82	92
Maximum	99	98	207	205	200	120	93		111		122	86	97
Month.Year	7.20	5.20	5.20	7.20	7.20	7.20	1-3.20	1.20	7.20		7.20	5-8.20	
Minimum	85	79	82	77	78	83	73	76	86		85	75	80
Month.Year	9.21	9.21	9.21	9.21	3.22	8.21	3.22	9.21	3.22		10.22	1.22	9.21
1923-1924													
Average	200	98	201	201	98	200	99	99	99		98	99	99
Maximum	207	203	207	208	204	206	206	206	203		201	208	203
Month.Year	8.23	7.24	2.24	2.24	9.24	6.23	8.23	2.23	8.23		9-10.23	9.23	4.24
Minimum	95	93	92	91	88	93	93	93	93	87	90	95	93
Month.Year	3.24	3.24	10.22 4.26	20.24	3.24	3.24	3.24	8.24	3.24	3.24	3.24	3.24	3.24
1926-1927													
Average	206	111	99	205	206	207	120	203	97	95	206	112	206
Maximum	114	121	208	112	113	113	120	118	117	111	118	119	113
Month.Year	8.27	8.27	10.25	8.27	10.25	10.25	10.25 7.26	10.25	10.25	10.25	8.26	4.27	8.27
Minimum	98	204	85	94	98	97	204	95	75	90	95	208	201
Month.Year	4.29	5.27	4.29	4.28	3.27	4.28	5.27	4.28	4.28	3.27	3.27	5.27	3.27
1929-33													
Average	90	202	79	81	97	82	91	81	72	82	85	97	91
Maximum	112	124	200	111	116	115	125	209	201	205	116	122	113
Month.Year	3.31	5.30	20.29	9.29	4.30	1.29	8-9.29	8.29	10.29	11.29	11.29	11.29	8.29
Minimum	58	72	52	48	65	49	55	51	52	55	55	61	59
Month.Year	1.33	1.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33
1937-38													
Average	81	94	73	88	209	204	98	82	74	84	120	97	91
Maximum	88	202	85	99	122	120	209	90	79	90	117	114	201
Month.Year	3.37	7.37	3.37	3.37	3.37	3.37	6.37	3.37	3.37	3.37	10.36	3.37	3.37
Minimum	73	84	58	72	96	99	83	75	68	75	202	85	80
Month.Year	9.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	20.38	9.38	5.38

Notes: (a) Not available for 1920 and 1921.
(b) Not available for 1920 through 1924.
Source: Authors' calculations.

Table 18: Population Growth by District

		Federal Reserve District												
		Boston (1)	New York (2)	Philadelphia (3)	Cleveland (4)	Richmond (5)	Atlanta (6)	Chicago (7)	St. Louis (8)	Minneapolis (9)	Kansas City (20)	Dallas (11)	San Francisco (12)	United States
	Average													
1	All	0.66	1.32	0.72	0.91	1.18	1.22	1.22	0.55	0.49	0.55	1.52	2.61	1.12
2	1920s	0.89	2.16	1.13	1.30	1.13	1.18	1.65	0.48	0.46	1.15	1.96	3.35	1.46
3	1930s	0.33	0.63	0.28	0.42	1.14	1.14	0.53	0.58	0.32	-0.08	1.01	1.64	0.69
4	1930 to 1933	0.30	1.05	0.46	0.49	0.78	0.89	0.50	0.71	0.59	0.21	0.98	1.12	0.70
5	1933 to 1939	0.35	0.42	0.20	0.39	1.31	1.26	0.55	0.51	0.19	-0.22	1.02	1.90	0.69
	Standard Deviation													
6	All	0.54	1.17	0.87	0.70	0.40	0.47	0.80	0.29	0.54	0.70	0.58	1.15	0.47
7	1920s	0.45	1.15	1.01	0.75	0.34	0.52	0.52	0.34	0.42	0.25	0.43	0.84	0.32
8	1930s	0.21	0.44	0.54	0.19	0.40	0.39	0.18	0.20	0.27	0.30	0.14	0.54	0.10
9	Maximum	2.02	3.94	2.56	2.39	1.91	2.03	3.17	1.17	2.33	1.67	2.54	4.48	1.95
10	Year	1920	1929	1924	1924	1939	1920	1920	1924	1920	1921	1921	1923	1921
11	Minimum	0.09	0.07	-0.61	0.19	0.69	0.18	0.31	0.13	-0.54	-0.56	0.76	0.91	0.59
12	Year	1939	1938	1929	1929	1929	1929	1934	1930	1929	1937	1934	1932	1933

Source: Authors' calculations.

Table 19: Population Growth by Region

	Growth in Population					Growth in Population relative to the U.S.				
	North East (1, 2, 3)	Great Lakes (4, 7)	Great Plains (8, 9, 10)	South (5, 6, 11)	Pacific (12)	North East (1, 2, 3)	Great Lakes (4, 7)	Great Plains (8, 9, 10)	South (5, 6, 11)	Pacific (12)
Average										
All	1.01	1.10	0.54	1.27	2.61	-0.11	-0.02	-0.58	0.15	1.47
1920s	1.58	1.52	0.70	1.34	3.35	0.15	0.00	-0.69	-0.12	1.70
1930s	0.43	0.53	0.28	1.16	1.68	-0.32	-0.17	-0.44	0.50	1.00
Standard Deviation										
All	0.67	0.73	0.37	0.37	1.15	0.46	0.29	0.24	0.38	0.71
1920s	0.40	0.59	0.28	0.41	0.84	0.48	0.29	0.13	0.24	0.52
1930s	0.30	0.20	0.22	0.31	0.52	0.31	0.12	0.21	0.27	0.52
Maximum	1.97	2.30	1.14	1.91	4.48	0.83	0.71	-0.12	0.86	2.72
Year	1924	1921	1921	1921	1923	1929	1920	1933	1939	1923
Minimum	0.06	0.29	-0.08	0.65	0.91	-0.84	-0.44	-0.86	-0.40	0.26
Year	1940	1930	1925	1929	1932	1940	1930	1925	1929	1932

Source: Authors' calculations.

Table 20: Characteristics of the Seasonal Cycle

	Federal Reserve Districts												
	Boston (1)	New York (2)	Philadelphia (3)	Cleveland (4)	Richmond (5)	Atlanta (6)	Chicago (7)	St. Louis (8)	Minneapolis (9)	Kansas City (10)	Dallas (11)	San Francisco (12)	United States
Standard deviation (SD)	23	28	24	20	30	25	22	21	18	20	24	22	23
SD 1920s	24	28	25	22	29	25	22	24	19	23	25	22	24
SD 1930s	22	28	22	19	31	25	22	18	16	18	24	22	23
Maximum	76	94	78	72	103	90	79	71	59	68	84	82	80
Minimum	-32	-39	-33	-26	-39	-38	-35	-32	-28	-29	-38	-28	-32
Average Xmas	65	83	62	58	85	65	63	54	39	57	68	76	70
Minimum Xmas	50	66	41	33	60	36	38	33	20	34	40	55	49
Minimum Xmas Year	1932-3	1932	1932	1932	1932	1932	1932	1932	1932	1932	1932	1932	1932
Maximum Xmas	77	98	78	70	102	87	79	72	58	71	87	89	83
Maximum Xmas Year	1926 1927	1929	1926	1926 1927	1939	1939	1928	1927	1925	1926 1927 1928	1939	1929	1928

Source: Authors' calculations.

Table 21: Final Series Minus Initial Series

	Federal Reserve District												
	Boston (1)	New York (2)	Philadelphia (3)	Cleveland (4)	Richmond (5)	Atlanta (6)	Chicago (7)	St. Louis (8)	Minneapolis (9)	Kansas City (10)	Dallas (11)	San Francisco (12)	United States
Average	-0.26	0.45	0.00	3.20	-1.69	0.03	-2.56	0.50	1.67	0.30	1.16	0.55	-1.15
Avg. 1919-1922	-0.44	0.85	0.21		-3.05	-0.14	-5.59		4.01		3.47	1.11	-2.01
Avg. 1923-1927	-0.15	-0.01	-0.17	3.47	-0.87	0.00	0.05		0.88		-0.21	0.12	-0.57
Avg. 1928-1929	-0.16	0.54	-0.07	2.88	-0.88	0.35	-1.92	0.50	-0.65	0.30	-0.25	0.36	-0.73
Standard deviation	1.80	3.87	9.10	3.10	2.96	3.22	9.25	2.24	6.42	1.78	6.35	2.78	5.64
Sd 1919-1922	1.56	5.94	13.37		2.01	4.84	13.57		8.50		9.60	4.07	7.58
Sd 1923-1927	2.08	1.93	5.62	2.49	3.75	1.85	4.37		3.51		1.79	1.59	3.86
Sd 1928-1929	1.70	1.25	4.48	3.73	1.96	1.27	4.18	2.24	5.04	1.78	2.71	1.36	4.34

Source: See Section 2.
Notes: Missing values indicate data missing for that period.

Table 22: Measurement Error in Initial Reports by Month

	Average			Standard Deviation		
	(1) 1919 to 1930	(2) 1919 to 1922	(3) 1923 to 1930	(4) 1919 to 1930	(5) 1919 to 1922	(6) 1923 to 1930
January	-4.18	-10.41	-0.62	7.76	10.47	2.23
February	1.85	-3.28	4.78	6.90	10.01	1.26
March	-8.27	-15.00	-4.43	8.96	12.90	1.79
April	-1.52	-0.79	-1.94	4.61	1.64	5.78
May	-0.36	-1.09	0.05	1.97	2.99	1.19
June	0.37	1.41	-0.22	1.96	0.56	2.26
July	0.54	2.00	-0.30	2.10	2.52	1.38
August	-1.58	1.34	-3.25	2.74	1.28	1.65
September	2.53	2.72	2.41	2.47	2.37	2.76
October	-4.91	-3.63	-5.77	3.11	4.30	2.03
November	3.99	4.31	3.77	1.91	1.19	2.36
December	-1.87	-1.73	-1.97	4.82	3.99	5.18

Source: See Section 2.

Figure 1: Growth Rate of Retail Sales, Various Measures, Unadjusted for Seasonal Fluctuations

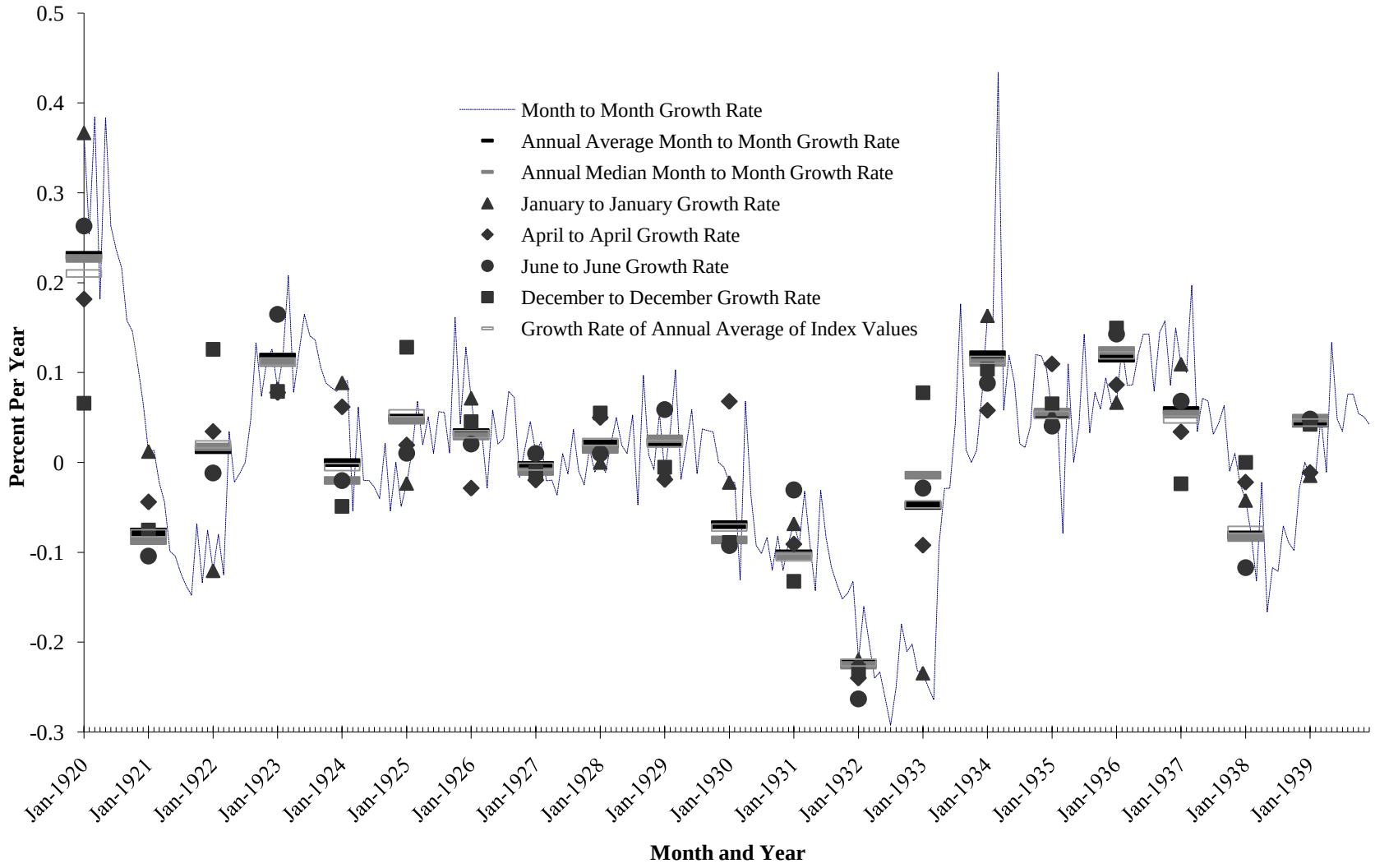


Figure 2: Retail Trade by Month, 1919 to 1939

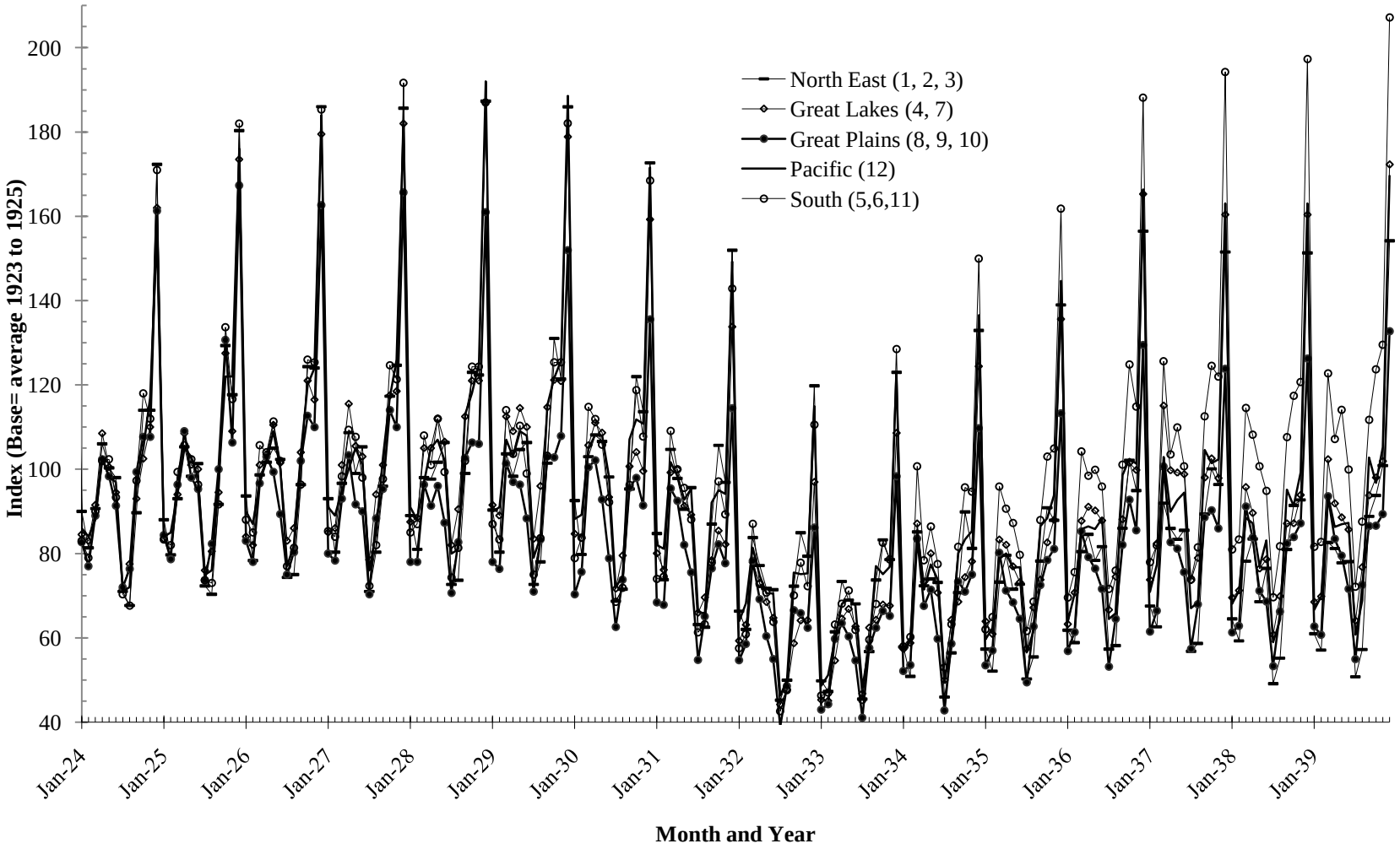
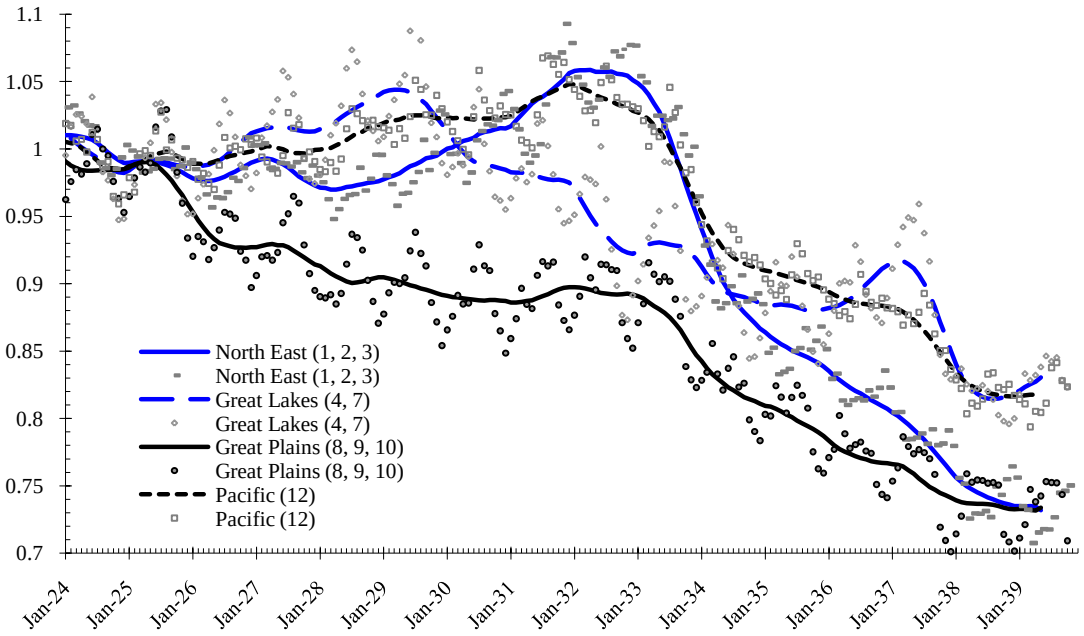


Figure 3: Regions Relative to the South, 1929 to 1939

(a) Unadjusted Data



(b) Seasonally Adjusted Data

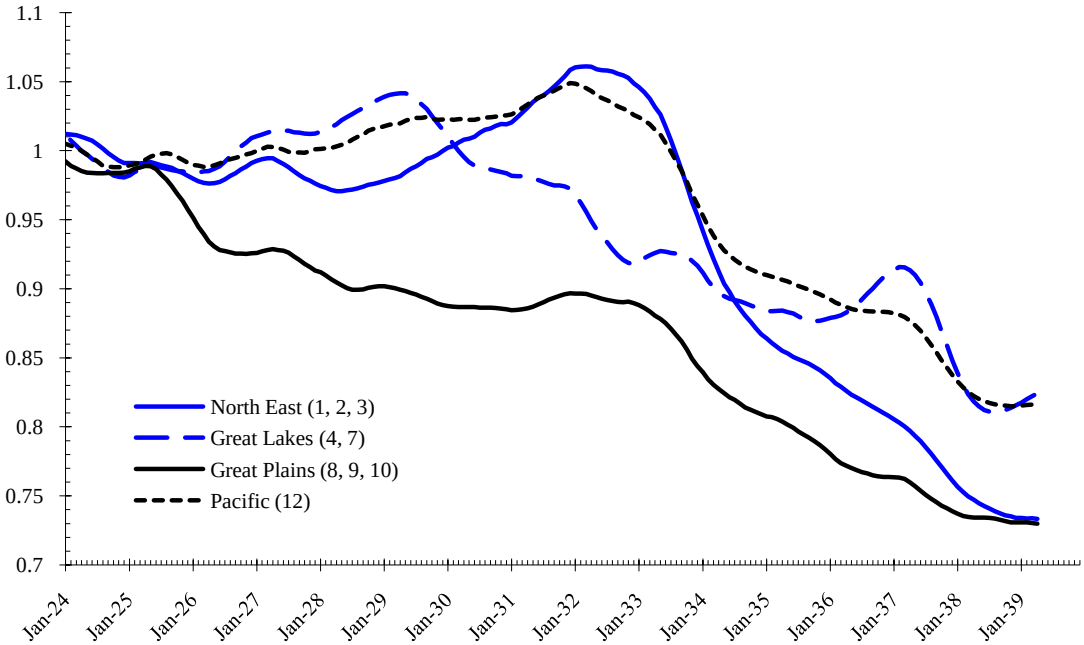


Figure 4: Growth Rates of Retail Trade by District, Percent Per Year

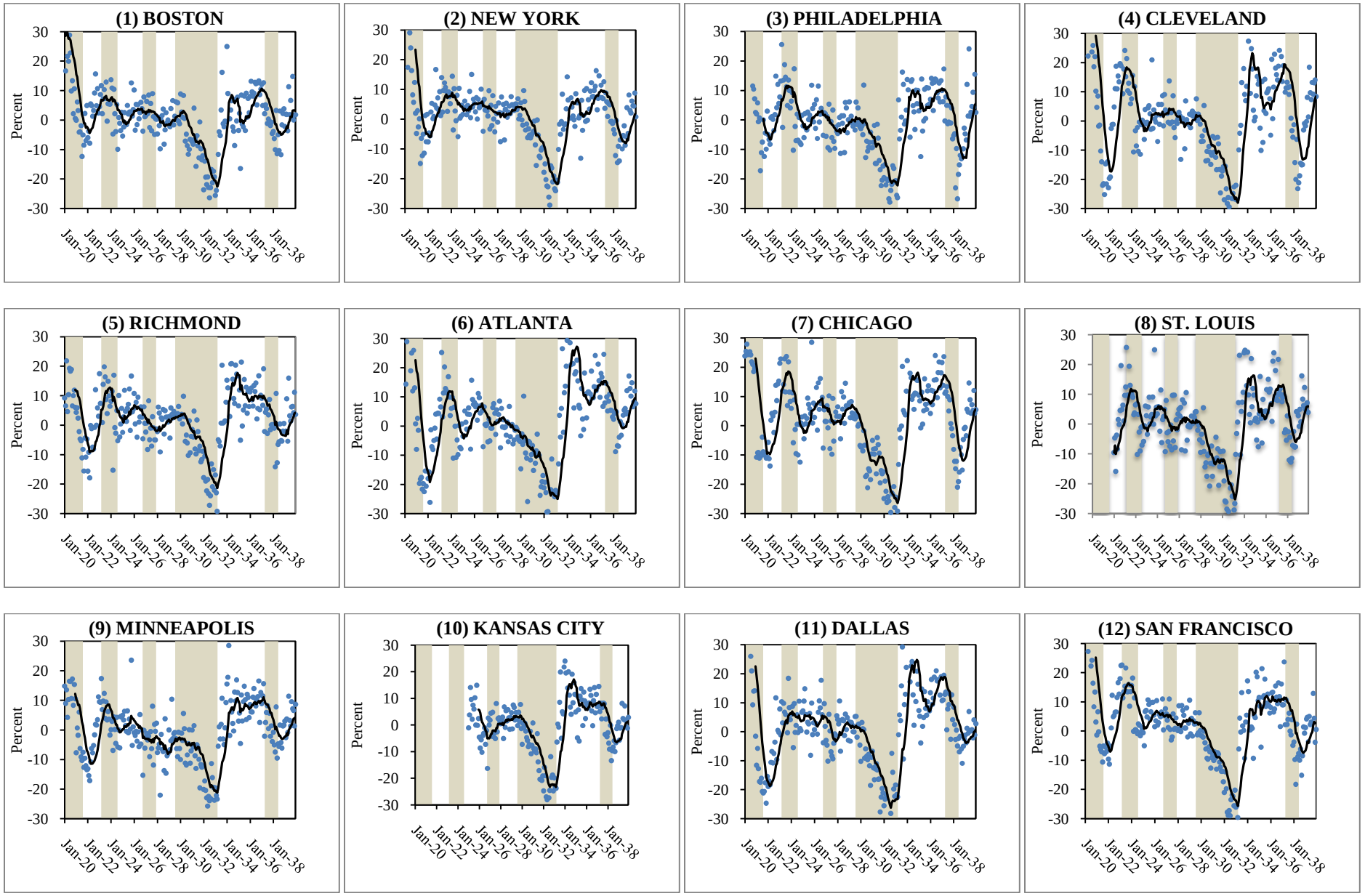


Figure 5: Changes in the Regional Shares of the Total Population

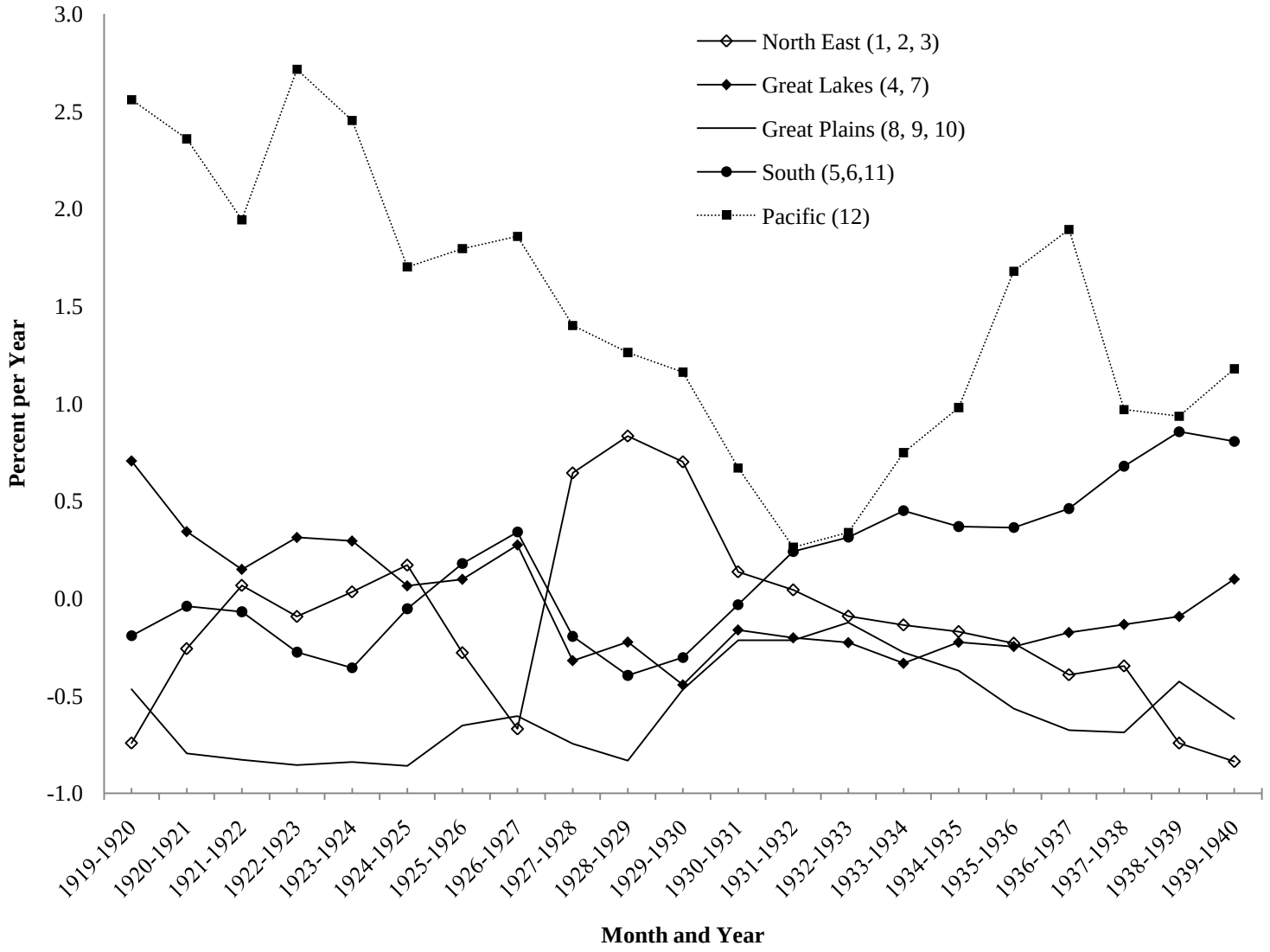


Figure 6: Seasonal Cycle

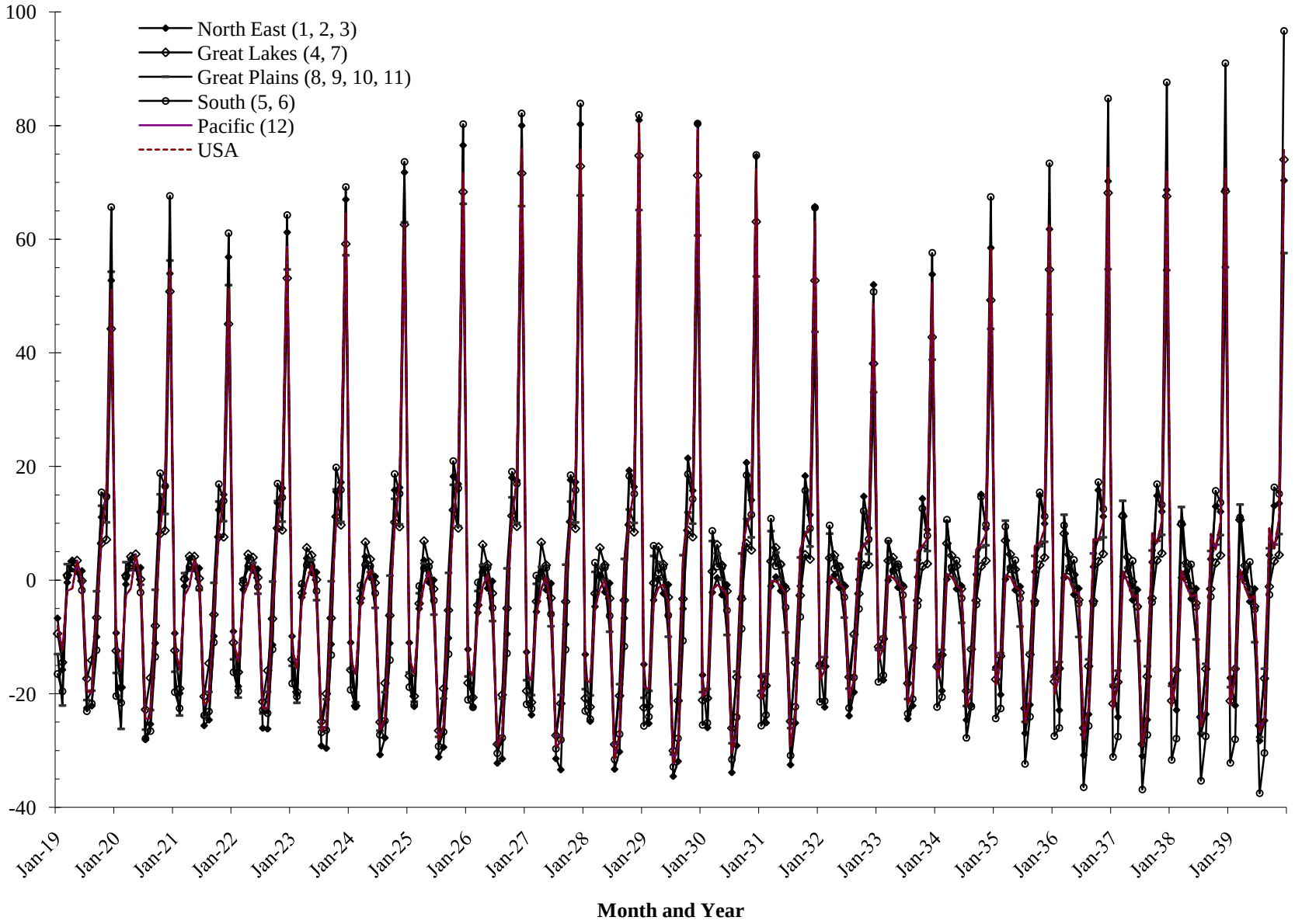


Figure 7: Monthly Averages for the Seasonal Component

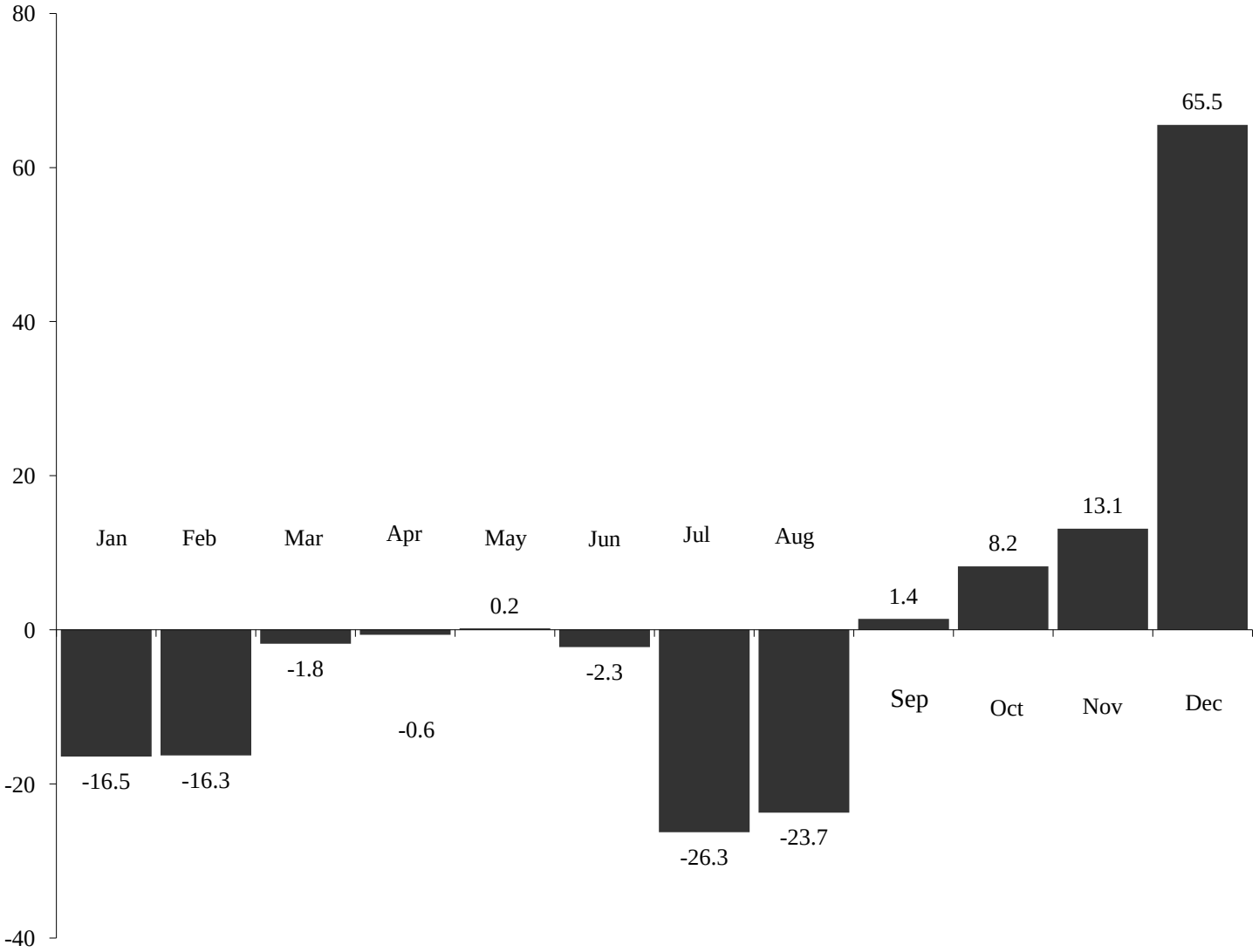


Figure 8: Monthly Averages for Seasonal Component by Region

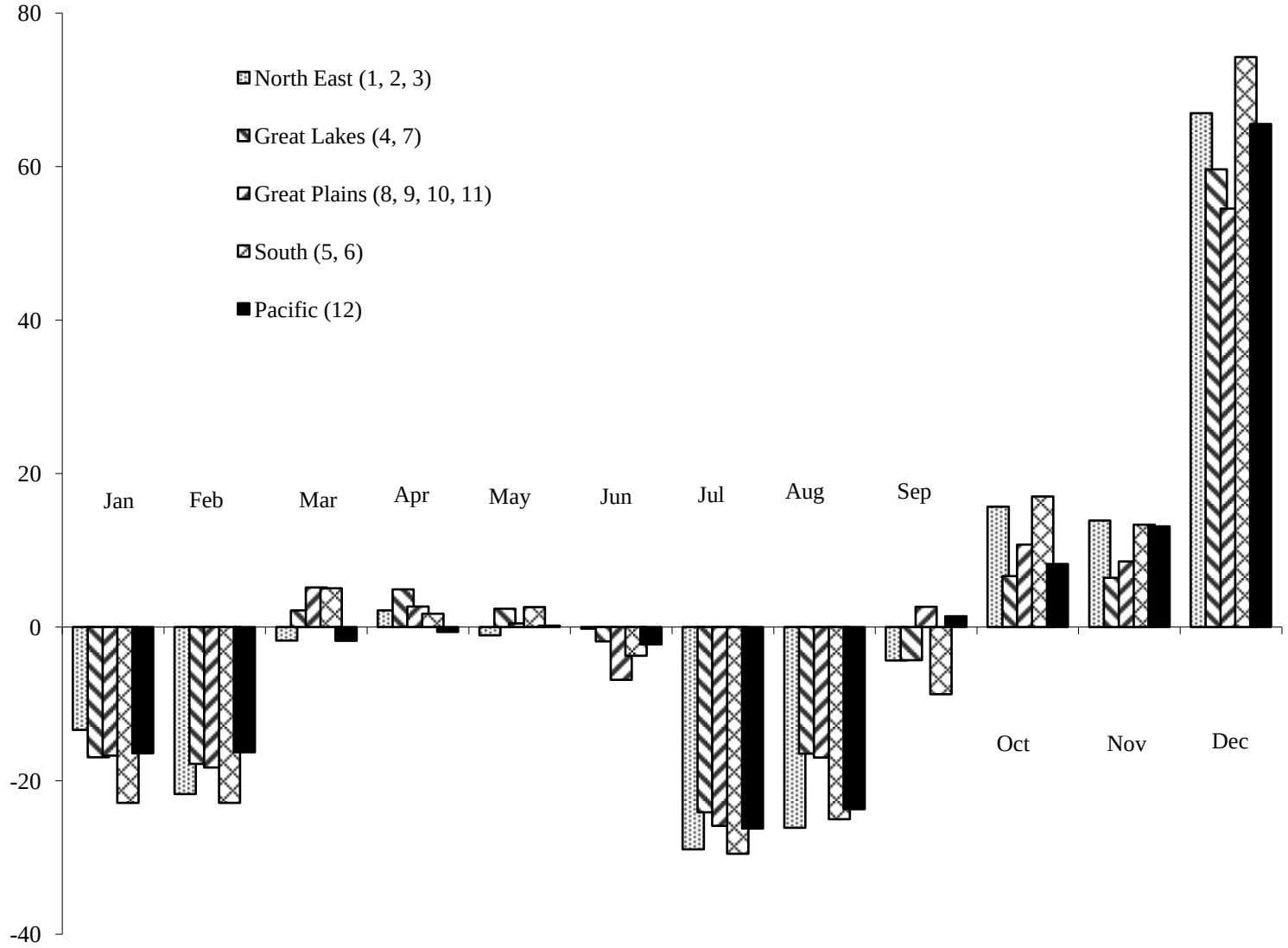


Figure 9: Difference between the Initial and Final Series by Distict

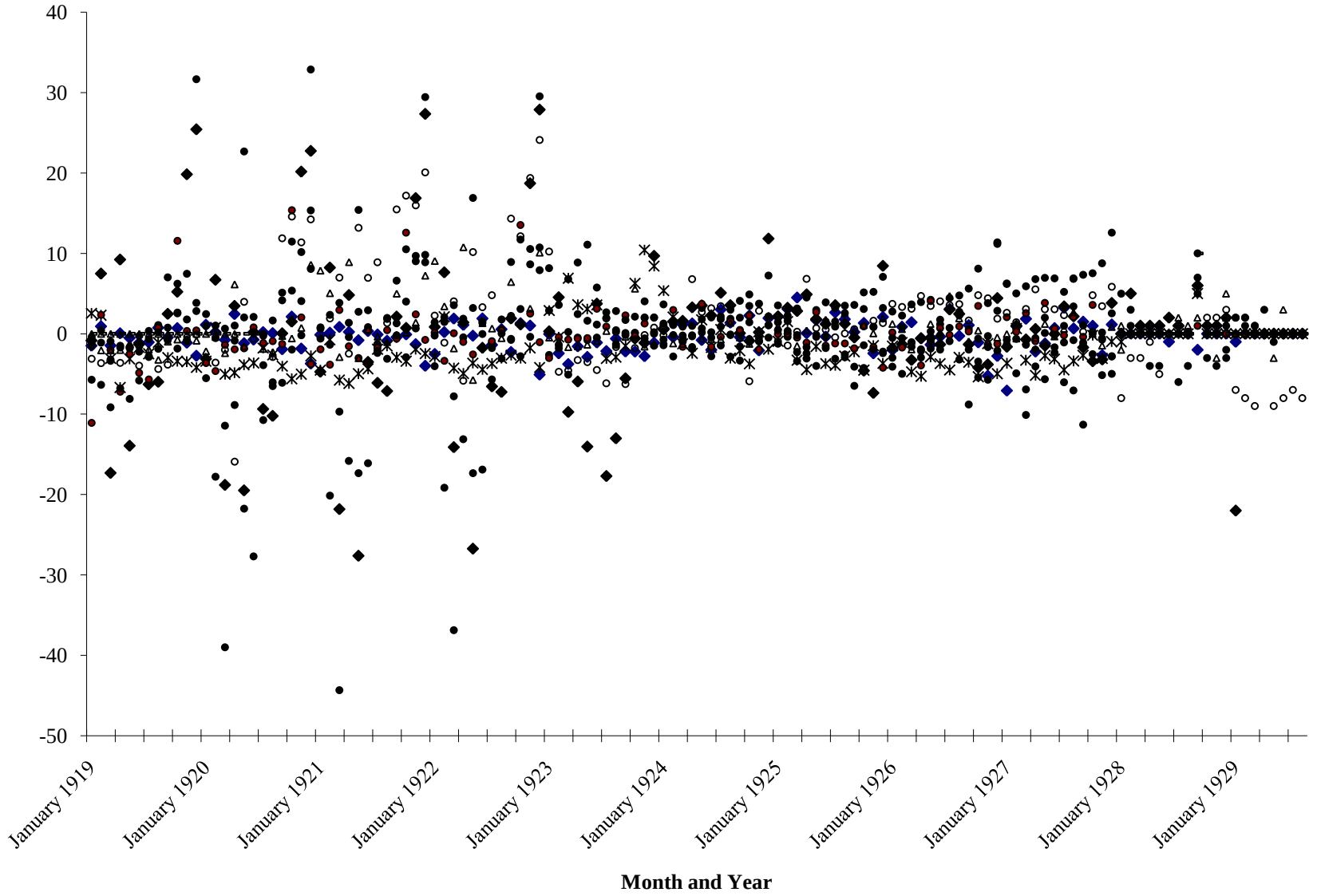


Figure 10: Final Index and Measurement Error by Month, 1919 to 1929

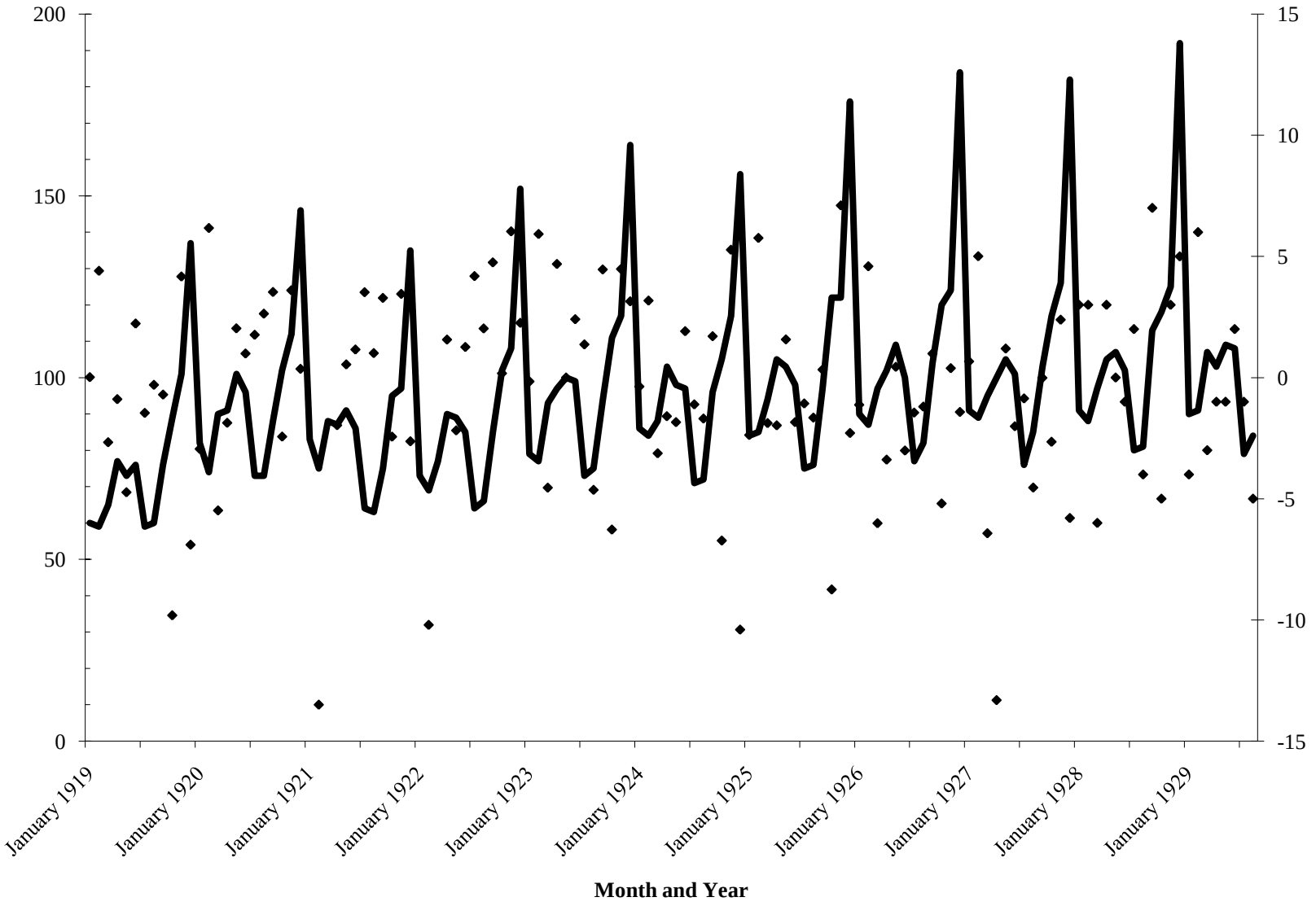
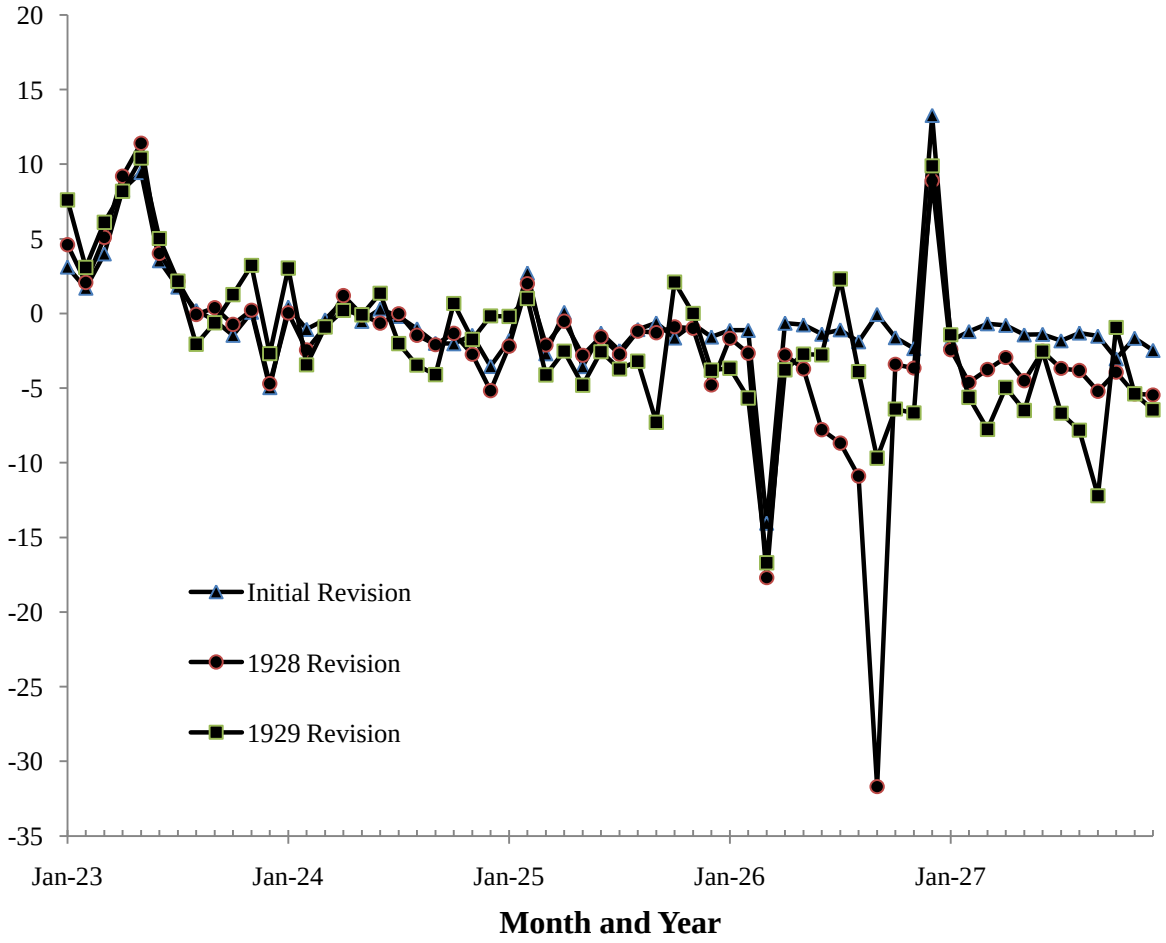


Figure 11: Three Revisions to the Chicago Series



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