

A Few Comments on
“Systemic Portfolio Diversification”
by Agostino Capponi & Marko Weber

Fourth Annual Conference on Money & Finance

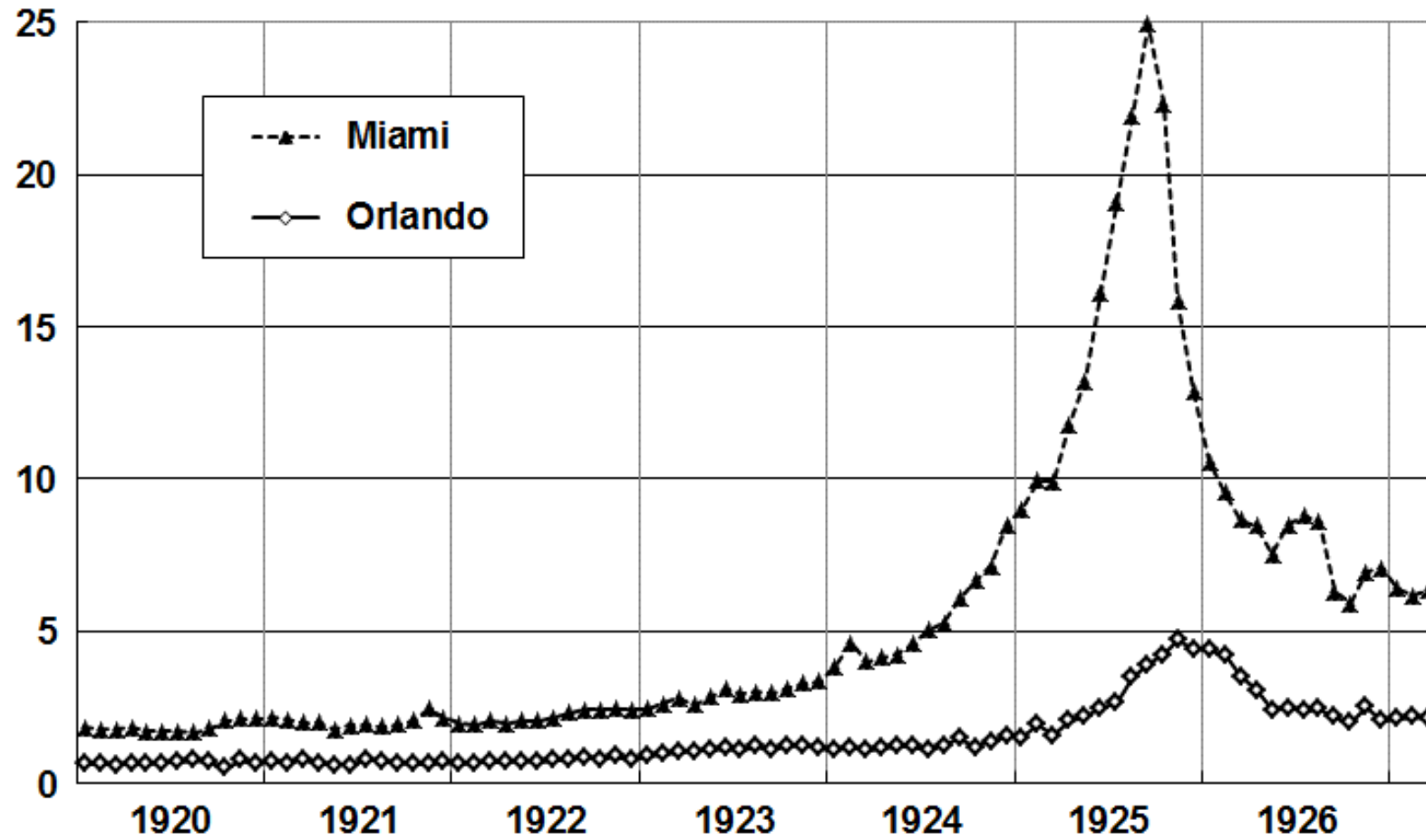
Steven Gjerstad, Chapman University, Economic Science Institute

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Asset Correlation: A Few Examples

- Florida land boom (1924-25)
- NYSE margin loans (1926-30)
- Chicago mortgage bonds (1920-35)

Florida Land Boom



Seasonally adjusted Real Estate Conveyances (in thousands)

Florida Land Boom

Dolbeare and Barnd (1931) compared the condition of ten banks that failed in the summer of 1929 with a group of eight banks that survived into 1931. The successful banks were chosen first from among the strongest Florida state banks. Eight of the failed banks were chosen because they were similar in size and located in the same cities as successful banks in the study, and two failed banks were chosen because they were similar in size to other successful banks in the study. Characteristics of the failed and successful banks are compared at call dates in June and December of each year from June 1922 to December 1928. Two comparisons stand out. The real estate

Dolbeare, Harwood, and Merle O. Barnd. 1931. *Forewarnings of Bank Failure: A Comparative Study of the Statements of Certain Failed and Successful Florida State Banks, 1922-1928*. University of Florida, Business Administration Series, Vol. 1, No. 1.

Florida Land Boom

| | Failed Banks | Successful Banks |
|--------------------------|--------------|------------------|
| Real Estate Loans | +288.1% | +40.0% |
| Real Estate Loans/Assets | 12.3% | 15.2% |
| Deposits | +220.7% | +90.6% |
| Loans | +166.0% | +56.6% |
| Loans/Assets | 57.4% | 56.0% |
| Cash/Assets | 29.4% | 32.4% |
| Deposits/Liabilities | 89.0% | 90.1% |

Characteristics of failed and successful banks. Percentages are averages over the period from June 1924 to December 1925. Percentage changes are from June 1924 to December 1925.

Summary is drawn from Chapter 3, p. 105 in *Housing and Mortgage Markets in Historical Perspective*, Eugene N. White, Kenneth Snowden, and Price Fishback, Editors, U. of Chicago for NBER, 2014.

NYSE Margin Loans

New York Stock Exchange

YEAR BOOK
1929 - 1930

October, 1930

COMMITTEE ON PUBLICITY

New York Stock Exchange Year Book—1929-1930

PERCENT OF NEW YORK STOCK EXCHANGE LOANS TO TOTAL MARKET VALUES OF LISTED SHARES

The appended table shows the ratio of total Stock Exchange member borrowings on security collateral to total listed share values, by months since February 1, 1926.

| | Brokers' Loans | Market Value All Listed Stocks | Ratio % |
|--------------|-------------------|-----------------------------------|------------|
| 1926 | | | |
| Feb. 1..... | \$3,513,174,154 | \$35,179,021,114 | 9.98 |
| Mar. 1..... | 3,535,590,321 | 34,533,916,094 | 10.23 |
| Apr. 1..... | 3,000,096,167 | 32,270,747,369 | 9.29 |
| May 1..... | 2,835,718,509 | 33,456,926,872 | 8.47 |
| June 1..... | 2,767,400,514 | 34,128,619,737 | 8.11 |
| July 1..... | 2,926,298,345 | 35,605,119,753 | 8.21 |
| Aug. 1..... | 2,997,759,527 | 36,786,266,896 | 8.14 |
| Sept. 1..... | 3,142,148,068 | 37,115,471,937 | 8.46 |
| Oct. 1..... | 3,218,937,010 | 37,300,697,103 | 8.62 |
| Nov. 1..... | 3,111,176,925 | 36,296,302,537 | 8.57 |
| Dec. 1..... | 3,129,161,675 | 37,034,394,712 | 8.44 |
| 1927 | | | |
| Jan. 1..... | \$3,292,860,255 | \$38,376,162,138 | 8.58 |
| Feb. 1..... | 3,138,786,338 | 38,602,044,866 | 8.13 |
| Mar. 1..... | 3,256,459,379 | 39,966,306,016 | 8.14 |
| Apr. 1..... | 3,289,781,174 | 40,126,835,948 | 8.19 |
| May 1..... | 3,341,209,847 | 40,507,450,825 | 8.24 |
| June 1..... | 3,457,869,029 | 42,529,863,613 | 8.13 |
| July 1..... | 3,568,966,843 | 41,963,647,182 | 8.50 |
| Aug. 1..... | 3,641,695,290 | 44,909,464,478 | 8.10 |
| Sept. 1..... | 3,673,891,333 | 45,531,368,411 | 8.06 |
| Oct. 1..... | 3,914,627,570 | 47,609,636,595 | 8.22 |
| Nov. 1..... | 3,946,137,374 | 46,028,970,485 | 8.57 |
| Dec. 1..... | 4,091,836,303 | 48,526,525,537 | 8.43 |
| 1928 | | | |
| Jan. 1..... | \$4,432,907,321 | \$49,736,350,946 | 8.91 |
| Feb. 1..... | 4,420,352,541 | 49,145,011,528 | 8.99 |
| Mar. 1..... | 4,322,578,914 | 48,484,707,019 | 8.91 |
| Apr. 1..... | 4,640,174,172 | 52,371,329,870 | 8.86 |
| May 1..... | 4,907,782,599 | 54,818,925,860 | 8.95 |
| June 1..... | 5,274,046,281 | 55,735,456,606 | 9.46 |

110

New York Stock Exchange Year Book—1929-1930

PERCENT OF NEW YORK STOCK EXCHANGE LOANS TO TOTAL MARKET VALUES OF LISTED SHARES—Continued

| | Brokers' Loans | Market Value All Listed Stocks | Ratio % |
|--------------|-------------------|-----------------------------------|------------|
| 1928 | | | |
| July 1..... | \$4,898,351,487 | \$52,930,378,356 | 9.25 |
| Aug. 1..... | 4,837,347,579 | 53,728,776,349 | 9.00 |
| Sept. 1..... | 5,051,437,405 | 57,385,881,463 | 8.80 |
| Oct. 1..... | 5,513,639,685 | 59,332,123,511 | 9.22 |
| Nov. 1..... | 5,879,721,062 | 61,075,813,465 | 9.69 |
| Dec. 1..... | 6,391,644,264 | 66,113,255,317 | 9.66 |
| 1929 | | | |
| Jan. 1..... | \$6,439,740,511 | \$67,472,053,300 | 9.54 |
| Feb. 1..... | 6,735,164,242 | 71,060,397,412 | 9.48 |
| Mar. 1..... | 6,678,545,917 | 71,871,889,736 | 9.29 |
| Apr. 1..... | 6,804,457,408 | 69,770,122,189 | 9.75 |
| May 1..... | 6,774,930,394 | 73,718,875,840 | 9.19 |
| June 1..... | 6,665,137,925 | 70,921,426,187 | 9.39 |
| July 1..... | 7,071,221,275 | 77,264,128,909 | 9.15 |
| Aug. 1..... | 7,473,794,294 | 81,569,046,497 | 9.16 |
| Sept. 1..... | 7,881,619,426 | 89,668,276,854 | 8.79 |
| Oct. 1..... | 8,549,383,979 | 87,073,630,423 | 9.82 |
| Nov. 1..... | 6,108,824,868 | 71,752,650,908 | 8.51 |
| Dec. 1..... | 4,016,598,769 | 63,589,338,823 | 6.32 |
| 1930 | | | |
| Jan. 1..... | \$3,989,510,273 | \$64,707,878,131 | 6.16 |
| Feb. 1..... | 3,984,768,065 | 69,008,836,529 | 5.77 |
| Mar. 1..... | 4,167,588,352 | 70,806,703,327 | 5.89 |
| Apr. 1..... | 4,656,302,339 | 76,075,447,459 | 6.12 |
| May 1..... | 5,063,131,359 | 75,304,607,812 | 6.72 |
| June 1..... | 4,747,831,912 | 75,018,855,283 | 6.33 |
| July 1..... | 3,727,711,289 | 63,892,327,059 | 5.83 |
| Aug. 1..... | 3,689,482,297 | 67,221,337,495 | 5.49 |
| Sept. 1..... | 3,598,633,069 | 67,721,086,999 | 5.31 |
| Oct. 1..... | 3,481,452,761 | 60,143,183,105 | 5.79 |
| Nov. 1..... | 2,556,124,087 | 55,025,710,617 | 4.65 |

*Corrected total.

111

NYSE Margin Loans

Through this deleveraging, Mandeville, Brooks & Chaffee failed on Nov. 18, 1929. Its liabilities were estimated to be \$4 million to \$5 million. (See "Brokerage Concern Put in Receivership," New York Times, Nov. 19, 1929, p. 2.)

Six months later the next brokerage, Woody & Co., failed with liabilities estimated at \$3 million. (See "Brokerage Insolvent, Face Jury Inquiry," New York Times, June 20, 1930, p. 17.)

Three more brokerage firms went bankrupt later in 1930, for a total of 6 in the 14 months following the October 1929 crash. (See "Brokers Suspended But Market Rises," New York Times, Nov. 30, 1930, p. 28.)

There were 611 member firms on the NYSE in 1929. (*NYSE Yearbook, 1929-1930*, p.24.)

On Oct. 1, 1929, of the \$8.549 billion in loans provided by NYSE members to their customers, \$7.077 billion (82.8%) came from New York banks and Trust companies. (*NYSE Yearbook, 1929-1930*, p. 107.)

Chicago Mortgage Bonds

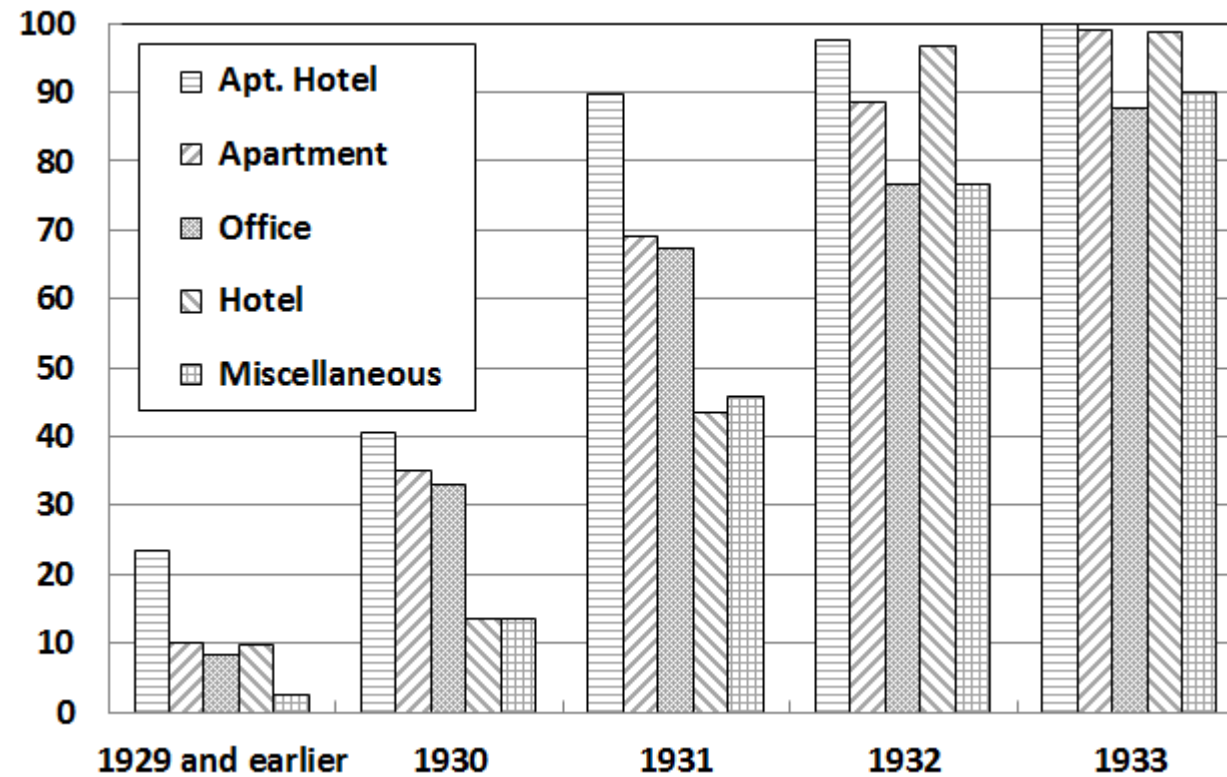
1920s Consumption and Investment Booms and Their 1930 Collapse 99

Table 3.4 Defaults on Chicago real estate bonds, 1925–1934

| Year | Number of defaults | Amount (thousands) (\$) | Cumulative defaults (\$) | Percent defaulted (%) |
|-----------|--------------------|-------------------------|--------------------------|-----------------------|
| 1925–1928 | 7 | 8,275 | 8,275 | 1.66 |
| 1929 | 22 | 29,320 | 37,595 | 7.55 |
| 1930 | 50 | 64,095 | 101,690 | 20.42 |
| 1931 | 104 | 162,116 | 263,806 | 52.97 |
| 1932 | 67 | 146,725 | 410,531 | 82.54 |
| 1933 | 20 | 38,003 | 448,534 | 90.17 |
| 1934 | 5 | 22,706 | 471,241 | 94.74 |

Cumulative defaults on Chicago real estate bonds

Chicago Mortgage Bonds



Cumulative defaults on Chicago real estate bonds, by use type

Chicago Mortgage Bonds

experienced in that year. It was in 1932 that the largest percentage of failures occurred in the office group when over 34% of the total issues defaulted. The volume was small in 1933, but increased in 1934 because of the failure of the largest issue in the study, the \$15,000,000 issue on the 208 South La Salle Street Building. At the close of 1935 five issues, with a volume of \$17,000,000, were still in good standing. These accounted for 11.1% of the office building offerings.



208 South LaSalle, Chicago

Changes to Housing, Investment, Consumption, and GNP
(relative to their 1929 levels)

