

Online Appendix for “Credit Relationships and Business Bankruptcy During the Great Depression”

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This online appendix contains additional detail on the data and regression results not reported in the paper.

1 Additional Details on Datasources

1.1 The Operation of Dun & Bradstreet

Dun & Bradstreet (D&B) was formed in the 1933 merger between R.G. Dun & Co. and J.M. Bradstreet & Son, both agencies that were founded a century before. In their early years, the agencies collected information on businesses from local correspondents working on contract. Correspondents were often local lawyers or postmasters that anonymously collected information and reported it to agency headquarters.

Over time, the agencies transitioned to a system of employee-reporters who worked exclusively for an agency and who solicited information directly from businesses, as well as gathering it from public sources and local “investigative reporting.” The agencies sold subscriptions to creditors. At first, subscribers requested information about

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specific borrowers from agency headquarters. All of the qualitative and quantitative information gathered by correspondents was simply disseminated in narrative form. Potential lenders were to come to their own conclusions about the creditworthiness of a borrower. Over time, the “soft” information was “hardened” into an overall rating for credit and selling. Eventually the lists were printed quarterly as Reference Books organized by state and city. Relatively few complete collections of the books are extant because subscribers were to return old issues before receiving revised ones. We digitized books for Mississippi that were published in January 1926, 1929, 1930, 1931, and 1935 that are in the collection of the Library of Congress.

1.2 Exit, Commercial Failure, and Bankruptcy

Every economist knows that exit refers to the decision of the business owner to seek higher profits through the pursuit of other activities. Exit, of course, requires only that the business owner feels he could do better elsewhere; exit does not imply accounting losses. Exit is measured by business discontinuance. When discontinuances were first estimated in the early-twentieth century by D&B—using a method similar to the one we employ in this paper—they numbered in the hundreds of thousands. Beginning in 1940, the Department of Commerce created a similar series from Social Security records that allowed transfers of a business to be excluded from the statistics. When transfers were counted as discontinuances, about 35 percent of firms discontinued in a given year. When transfers were excluded, about 25 percent of active concerns discontinued annually.

Discontinuances include exiting business that meet their debt obligations and those that do not. The latter are referred to as business failures. Business failure refers

to businesses involved in voluntary negotiation that results in losses to creditors or in court proceedings of any kind?in state or in federal court. Failures averaged about 13,700 per year from 1899-1962, or about 12 failures per 10,000 businesses per year. Properly used, the term bankruptcy refers only the use of the federal bankruptcy law. Bankruptcies track failures closely, but over 1899-1962 average about 12,600 per year, or 11 per 10,000 businesses. Although the series track closely, they are not taken over the same population. In particular, for this period both the number of business concerns and business failures exclude very small businesses and professionals while the business bankruptcy numbers include large numbers of such firms.

1.3 Bankruptcy Law and Procedures

The Constitution reserves the power to enact laws on bankruptcy to Congress. Congress used this power four times during the nineteenth century—one each in 1800, 1841, 1867 and 1898. The first two were passed in the wake of financial crises and repealed within a few years because of complaints by creditors about high expenses and low dividends. The third law was enacted in 1867. It was amended several times and lasted longer than its predecessors, but again, complaints of excessive fees and expenses led to its repeal in 1878. The federal bankruptcy law in effect in the 1930s was essentially the law passed in 1898. As noted in the paper, the 1898 Bankruptcy Act, which was still in effect at the start of the Depression, t allowed a creditor to petition the court to begin bankruptcy proceedings against a business debtor; creditor-initiated petitions were called involuntary petitions. Creditors were barred from initiating involuntary bankruptcy against a wage earner or farmer.

When a debtor petitioned for bankruptcy, collection actions under traditional

creditors? remedies ? which are governed by state law – were stopped; a meeting of creditors was called; the debtor?s non-exempt assets were liquidated; and the proceeds were distributed on a pro rata basis among like creditors. After liquidation and distribution, the debtor was to petition the court for a discharge of any remaining debt.

Though bankrupt business owners can subsequently open new businesses, procedures for court-supervised “reorganization” of most business debts were not added until 1933. Defaults among toll bridge companies, railroads, and other businesses holding assets that were more valuable together than piecemeal led to the development of reorganization procedures, which were extended in 1933 to many other businesses The 1898 Act was designed to encourage business debtors and their creditors to take the time to negotiate before coming to court.

1.4 New Data from Bankruptcy Case Files

Although the bankruptcy statutes require only that certain bankruptcy case files be held permanently (railroad and municipal cases, for example), relatively few case files resulting from petitions under the temporary laws of the nineteenth century, the first permanent law passed in 1898, and the reforms of 1978 have been lost. The court?s file for each case contains detailed information on the assets, debts, incomes, and pre-filing experiences of filers, as well as information on how the case progressed through court. The case files are a rich source of long-run, micro-level data on business and households in financial distress, as well as a rich source of information on credit transactions and asset ownership.

The sample of Mississippi cases used here constitutes a pilot project for a national

sample of the bankruptcy case files from 1898 onwards. Most case files from before World War II are part of the permanent collection of the National Archives and Records Administration (NARA). They are stored across the regional Archives, but two locations hold most of the records: 44% of court-years are in Kansas City and 31% of court-years are in Atlanta. We accessed the Mississippi records in Atlanta.

There are more than one million cubic feet of bankruptcy case files in the Archives' permanent collection. Additionally, approximately two million cubic feet of more recent case files are stored in the regional Federal Records Centers. Ownership of these records is currently being transferred from the Administrative Office of the U.S. Courts to NARA. A three percent random sample of boxes will be added to the Archives' collection.

The volume of records makes it infeasible to open each box to retrieve, say, every 100th case. Instead, for the national sample we are collecting all cases in a one percent random sample of boxes. For the Mississippi pilot we oversampled boxes from cases filed from the start of 1929 through 1936 to ensure a large enough number of observations for analysis. We used the extant court docket books to identify boxes of cases filed each year in each of the six division courts of the two federal court districts in Mississippi. One box was selected at random for each year. If the box contained fewer than five cases, the next box was also selected. For this time period in Mississippi, the boxes mostly contained consecutive cases; that is, the cases were boxed in the order that they were filed. The sample for each division court is therefore clustered in time, but the sample overall contains observations of cases filed in most months.

For Mississippi we also collected data from all extant docket books from 1929-1936

so that some characteristics of the pilot sample could be compared to the universe of cases from which they were drawn. The extant dockets include data on 64 percent of cases filed in the two federal court districts of Mississippi. Slightly more docket books have survived for the Southern District. The sample of case files represents 20 percent of all cases reported in the Annual Report of the Attorney General. The sample for the courts in the Northern District is 15 percent of cases; the sample for the Southern District is 22 percent of all cases.

1.5 Data Transcribed from Case Files

We use data transcribed from the petition, the summary of assets and debts, and the detailed declarations (or “schedules”) of secured and unsecured debts. Data elements subsequently encoded from the petition include name of the petitioner, occupation, town and county of residence, whether the bankruptcy was initiated by the debtor (a voluntary petition) or by creditors (an involuntary petition). Debts are listed by type of creditor: priority debts (on the first four lines of the summary) are primarily wages and taxes. Secured (mortgages, for example) and unsecured debts are listed next. From the summary schedules we transcribed totals for the various categories of debts and assets.

Particularly important to the current paper is the detailed description of secured and unsecured debts provided on Schedules A-2 and A-3. Debts listed on this page include stock purchased on account, store fixtures purchased on credit, utility bills, and endorsed notes. The location of each creditor is noted so that the court can announce the bankruptcy filing in local papers to alert the creditor. The date when the debt was contracted is also to be reported on the schedule. Similar schedules for

individual, non-business petitioners show personal loans from financial institutions and from personal acquaintances, doctor's bills, local open accounts, legal judgments, and the like. The level of detail on the schedules provides much more information about historical credit networks than any other data available.

From the detailed schedules of both unsecured and secured debt we transcribed the name of each creditor, the city and state where the creditor is located, the date the debt was contracted, the description of the debt, the amount owed, and the value of the asset securing the debt, if applicable.

2 Additional Regression Results

2.1 Triple Interactions

The following tables report specifications that include a triple interaction between location in St. Louis with after Caldwell as well as having a good or high credit rating. While there is not much of an additional effect for high-quality businesses in the St. Louis region for exits between 1930 and 1931, there is a clear increase for high-credit quality businesses in the 1931 and 1935. We do not have enough power to identify any differential effect before or after the Caldwell event for high-credit quality businesses relative to low-quality ones.

2.2 Industry Effects

Table 3 reports results for regressions specified as in the even-numbered column of tables 7 and 8, but also including industry fixed effects as additional controls. Differences across subsamples reported in the main body of the text are not driven by

the inclusion of industry fixed effects but by differences in the composition of the subsamples themselves.

	Exit	
	(1)	(2)
Good+	-0.015 (0.017)	-0.006 (0.017)
St. Louis	-0.067 (0.010)	-0.066 (0.010)
Year=1930	-0.134 (0.020)	
Good+*St. Louis	-0.046 (0.022)	-0.046 (0.022)
Good+*1930	-0.061 (0.054)	
1930*St. Louis	0.210 (0.028)	
Good+*1930*St. Louis	-0.018 (0.071)	
Year=1931		0.247 (0.011)
Good+*1931		-0.201 (0.024)
1931*St. Louis		0.120 (0.015)
Good+*1931*St. Louis		0.067 (0.033)
Observations	12616	21420

Standard errors in parentheses

Table 1: Differences in the probability of exit from 1930 to 1931 and from 1931 to 1935 across Federal Reserve districts of Mississippi. The pre-treatment year is 1929-1930. Regressions include a time trend. Standard errors are robust. Column 1 is baseline linear. Column 2 includes industry-specific time trends. The variable *Good+* is an indicator for good or high credit rating.

	Bankrupt	
	Before (1)	After (2)
Good+	-0.007 (0.004)	-0.008 (0.003)
St. Louis	-0.005 (0.003)	-0.006 (0.002)
Good+*St. Louis	-0.002 (0.005)	0.003 (0.003)
Observations	10873	10732

Standard errors in parentheses

Table 2: Differences in the probability of filing for bankruptcy across Federal Reserve districts of Mississippi before and immediately after the the Caldwell crisis. Regressions take as the reference population the set of businesses listed by D&B in 1929. The specifications control for filing in the first quarter of the calendar year and include industry-specific time trends and controls for net worth and ratings. The variable *Good+* is an indicator for good or high credit rating.

	Assets (1)	Leverage (2)	All Debt (3)	Bank Debt (4)	Trade Credit (5)
St. Louis	-0.076 (0.521)	0.072 (0.185)	0.048 (0.303)	-1.245 (0.966)	0.064 (0.405)
After Caldwell	-0.174 (0.485)	-0.071 (0.159)	0.043 (0.300)	0.378 (0.822)	0.274 (0.296)
St. Louis * After Caldwell	-0.067 (0.711)	0.169 (0.289)	-0.293 (0.467)	-0.321 (1.200)	-0.669 (0.568)
Observations	210	195	210	219	219

Standard errors in parentheses

Table 3: Differences in the balance sheet characteristics of businesses across Federal Reserve districts, before and after the Caldwell crisis. Restricted to businesses in the sample that linked to the 1929 D&B books. All variables are in logs. Standard errors are robust. Industry effects included in all regressions.