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Trade Credit Experience

Credit Losses

The risk attending trade credit is intensified by its secondary position relative to the main objective of nonfinancial firms, the distribution of their goods and services. In addition to the risk stemming from this conflict between the objectives of the sales and credit departments, trade credit typically carries no down payment, no collateral, and no lien on the goods that the credit finances. It is not surprising, therefore, that, both in dollar volume and as a percentage of trade credit outstanding, losses in this form of credit are high. By 1960, the credit losses of business corporations exceeded $1.3 billion a year (Table 5)—nearly all in trade credit. This sum exceeded the dollar losses of all other forms of credit combined. The average loss rate for the years 1947 through 1960 was about 1.2 per cent (Table 6, column 3). By comparison, consumer credit losses of sales finance companies in a comparable period, 1947-60, averaged less than 1 per cent,[1] and losses on bank credit only 0.17 per cent.[2]

[1] The ratio of net losses to total retail paper liquidated, by a composite of samples of instalment sales finance companies, reported by the First National Bank of Chicago, averaged 0.95 per cent in 1947-60.

[2] Federal Deposit Insurance Corporation, *Annual Reports.*

TABLE 5

CORPORATE CREDIT LOSSES INCURRED, BY SECTOR, 1947-60
(million dollars)

	Total	Mining	Manufac-turing	Wholesale	Retail	Service	Construc-tion
1947	326.2	6.1	144.6	61.4	86.9	17.0	10.2
1948	382.0	6.6	160.0	75.8	110.5	16.9	12.2
1949	453.7	6.8	193.6	82.7	133.9	18.4	18.3
1950	426.5	5.3	172.8	88.1	129.7	19.2	11.4
1951	452.8	5.2	177.4	99.7	135.4	20.8	14.3
1952	473.1	9.7	181.2	92.1	148.7	22.6	18.8
1953	581.3	14.7	229.9	116.5	177.2	24.2	18.8
1954	590.9	15.3	227.8	124.5	179.4	24.6	19.3
1955	652.1	13.5	239.5	148.6	200.8	29.1	20.6
1956	738.5	10.6	272.6	170.2	221.7	36.8	26.6
1957	823.3	12.3	312.3	184.3	239.2	43.2	32.0
1958	897.3	13.1	359.5	200.2	242.1	43.3	39.1
1959	1,021.4	14.4	414.0	220.4	272.2	58.5	41.9
1960[a]	1,336.3	23.4	596.0	262.4	328.1	74.0	52.4

SOURCE: *Statistics of Income*, corporations reporting with and without balance sheets. Consumer credit losses are present in the losses of the retail and service sectors.

[a] Preliminary.

Credit losses of corporations in the six major business sectors ranged in 1947-60 between 0.96 and 1.63 per cent of receivables outstanding (Table 6). The cross section of corporations by sector, size, and profitability status in Table 7 shows, however, that average loss rates for the decade 1947-57 were as high as 4.3 per cent for small, unprofitable retail firms. All of the criteria—smallness, unprofitability, and being a retail firm—were characteristics accompanying abnormally high loss rates. Small manufacturing firms had an average loss rate about five

TABLE 6

CORPORATE BAD-DEBT LOSS RATIOS, MAJOR BUSINESS SECTORS, 1947-60

(per cent)

	RATIO OF BAD-DEBT LOSSES TO			
	Sales		*Receivables Outstanding*	
	6 Sectors (1)	4 Sectors[a] (2)	6 Sectors (3)	4 Sectors[a] (4)
	CORPORATIONS			
1947	.1046	.0881	1.14	0.91
1948	.1088	.0895	1.21	0.95
1949	.1360	.1137	1.45	1.17
1950	.1086	.0880	1.03	0.80
1951	.1016	.0816	1.00	0.78
1952	.1045	.0824	0.96	0.73
1953	.1218	.0982	1.19	0.93
1954	.1270	.1037	1.14	0.89
1955	.1204	.0982	1.06	0.82
1956	.1297	.1056	1.09	0.85
1957	.1362	.1123	1.19	0.94
1958	.1500	.1287	1.19	0.98
1959	.1543	.1321	1.29	1.05
1960[b]	.1949	.1737	1.63	1.39
	PARTNERSHIPS[c]			
1959	.1911	.1655	2.22	1.70

SOURCE: Based on corporate income tax returns for the mining, manufacturing, wholesale, retail, service, and construction sectors in *Statistics of Income.*

[a] Excludes retail and service sectors.

[b] Preliminary.

[c] *U.S. Business Tax Returns—1959/60,* Supplement to *Statistics of Income,* Table 14.

times as great as giant manufacturing firms, and unprofitable firms had an average loss rate two to three times as high as profitable firms. Intersector comparisons are limited by the presence of consumer credit losses in the retail and service sectors; nevertheless, Tables 7 through 9 provide a useful estimate of the distribution of trade credit losses by sector and size of firm over time.[3]

The differential loss rates also show a substantial disparity among firms by industry (Table 10). The highest loss rates are experienced by the printing and publishing, lumber, furniture, food, and apparel industries, in that order. Capital goods industries as a group have the lowest loss rates, although these industries have been found to be the principal trade creditors. This suggests that the customers of capital goods industries—mainly other manufacturers—may be better credit risks than the wholesalers and retailers to whom soft goods manufacturers sell.

For the economy as a whole, the trend in bad-debt losses of nonfinancial firms has been generally upward since 1950. Chart 4 and Tables 8 and 9 show that, with few exceptions, this was true for most sectors and size groups. The loss rates were fairly stable in the early 1950's for manufacturing firms on an industry basis, but rose sharply in the late 1950's (Table 10). The loss rates of most groups of firms, as shown in Chart 4, were high in the recession year 1949, in 1953, just before the recession of 1953-54, and again before the recessions of 1958 and 1961.

[3] The discussion assumes that, with the exception of the consumer credit losses in the retail and service sectors, all credit losses reported by nonfinancial corporations represent losses on trade credit. Although trade credit is only 65 per cent of the credit extended by nonfinancial firms, this assumption seems to be sound. The only other financial holdings of business that are of substantial proportion are marketable securities, nearly all of which are government securities, and over 80 per cent of the marketable securities held by nonfinancial firms have a maturity of less than one year, obviating any serious capital losses. It may be assumed, therefore, that trade credit is responsible for nearly all bad-debt losses reported by nonfinancial firms outside of the retail and service sectors. (Donald P. Jacobs, "Marketable Security Portfolios of Nonfinancial Corporations, Investment Practices and Trends," *Journal of Finance,* September 1960, Table 2.)

TABLE 7

RATIO OF BAD-DEBT LOSSES TO RECEIVABLES OUTSTANDING, BY SIZE, SECTOR, AND PROFITABILITY OF CORPORATION, AVERAGE FOR 1947-57

(per cent)

	All Sizes	Small	Medium	Large	Giant
			MINING		
All corporations	0.65	1.30	0.72	0.68	0.28
Profitable	0.38	0.64	0.39	0.40	0.25
Unprofitable	1.54	2.08	1.37	1.81	0.51
			MANUFACTURING		
All corporations	0.81	1.87	1.19	0.80	0.37
Profitable	0.71	1.65	1.04	0.73	0.40
Unprofitable	2.02	2.86	2.39	1.81	0.53
			WHOLESALE		
All corporations	1.32	2.35	1.82	1.28	0.53
Profitable	1.17	2.04	1.70	1.20	0.49
Unprofitable	2.60	3.51	2.68	2.16	1.30
			RETAIL[a]		
All corporations	2.53	3.65	3.08	2.26	1.76
Profitable	2.37	3.35	2.95	2.17	1.73
Unprofitable	3.66	4.31	3.80	2.96	2.57
			SERVICES[a]		
All corporations	1.74	2.74	2.32	1.53	0.86
Profitable	1.51	2.39	2.05	1.41	0.78
Unprofitable	2.80	3.52	3.44	2.20	1.46
			CONSTRUCTION		
All corporations	0.53	1.72	0.87	0.32	0.18
Profitable	0.45	1.47	0.85	0.29	0.12
Unprofitable	0.90	2.24	0.96	0.46	0.66

SOURCE: Treasury *Source Book*.
[a] Includes consumer credit losses.

TABLE 8

RATIO OF BAD-DEBT LOSSES TO RECEIVABLES OUTSTANDING, BY SIZE OF FIRM, ALL MAJOR BUSINESS SECTORS, 1947-59

(per cent)

	Small	Medium	Large	Giant
1947	2.15	1.57	0.88	0.60
1948	2.35	1.80	0.90	0.62
1949	2.44	1.98	1.05	0.96
1950	1.90	1.53	0.80	0.58
1951	1.93	1.67	0.82	0.48
1952	n.a.	n.a.	n.a.	n.a.
1953	2.15	1.89	1.08	0.65
1954	2.18	1.83	1.06	0.55
1955	2.08	1.72	1.01	0.46
1956	2.13	1.87	1.02	0.52
1957	2.25	2.03	1.11	0.58
1958	2.20	1.78	1.10	0.67
1959[a]	2.26	1.86	1.18	0.76

SOURCE: Treasury *Source Book*. Corporations only. Includes mining, manufacturing, wholesale, retail, service, and construction sectors.

[a] Excluding firms with zero assets.

Credit Losses as a Cause of Failure

Credit losses are not only an operating expense, but Dun & Bradstreet studies show that they also pose a threat to the creditor's survival. Fundamental causes are not easily established, with the result that most failures are attributed to such vague causes as "inadequate sales" and "competitive weakness," but where fundamental causes have been determined, receivables difficulties rank first, exceeding such other specific causes as the effects of heavy operating expenses, inventory difficulties, excessive fixed costs, and poor location.

The decision that receivables difficulties is the fundamental cause of failure is reached by Dun & Bradstreet analysts only if there is a clear and indisputable excess of receivables in the assets of the failed firm.

TABLE 9

RATIO OF BAD-DEBT LOSSES TO RECEIVABLES OUTSTANDING, BY SECTOR AND SIZE OF CORPORATION, 1947-60

(per cent)

	Small	Medium	Large	Giant	All Sizes
			MINING		
1947	1.11	.03	1.30	.07	.75
1948	1.50	.48	.33	.05	.51
1949	1.24	.69	.56	.25	.70
1950	.86	.49	.36	.17	.39
1951	.88	.36	.25	.13	.34
1952	n.a.	n.a.	n.a.	n.a.	.66
1953	.98	.56	1.60	.56	.87
1954	1.70	1.99	.61	.39	1.00
1955	2.14	.58	.82	.31	.77
1956	1.10	.81	.41	.26	.56
1957	1.34	.74	.80	.26	.65
1958	1.53	.39	.57	.29	.57
1959	1.70	.75	.62	.36	.72
1960	—	—	—	—	1.03
			MANUFACTURING		
1947	1.98	1.10	.64	.43	.86
1948	2.10	1.28	.70	.43	.90
1949	2.16	1.35	.89	.82	1.16
1950	1.63	.89	.64	.50	.77
1951	1.63	1.03	.67	.37	.72
1952	n.a.	n.a.	n.a.	n.a.	.65
1953	1.86	1.30	.83	.46	.84
1954	1.82	1.23	.92	.36	.79
1955	1.79	1.06	.83	.30	.72
1956	1.91	1.21	.82	.33	.73
1957	1.97	1.45	.97	.41	.84
1958	1.96	1.35	1.00	.46	.88
1959	1.95	1.33	.99	.59	.96
1960	—	—	—	—	1.34

(continued)

TABLE 9 (continued)

	Small	Medium	Large	Giant	All Sizes
			WHOLESALE		
1947	2.33	1.52	1.05	.40	1.18
1948	2.53	1.71	1.11	.49	1.30
1949	2.65	1.91	1.15	.42	1.38
1950	2.06	1.56	1.00	.38	1.06
1951	2.28	1.78	1.18	.34	1.15
1952	n.a.	n.a.	n.a.	n.a.	1.07
1953	2.34	1.95	1.46	.57	1.40
1954	2.38	1.76	1.33	.62	1.35
1955	2.26	1.82	1.35	.51	1.30
1956	2.34	1.89	1.36	.71	1.43
1957	2.38	2.02	1.52	.66	1.49
1958	2.31	1.91	1.37	.88	1.49
1959	2.52	1.86	1.44	.79	1.49
1960	—	—	—	—	1.72
			RETAIL		
1947	3.28	2.83	2.20	1.89	2.46
1948	3.59	3.16	2.47	2.06	2.72
1949	3.81	3.37	2.65	2.26	2.93
1950	3.49	2.86	2.08	1.49	2.32
1951	3.41	2.89	2.08	1.53	2.32
1952	n.a.	n.a.	n.a.	n.a.	2.29
1953	3.83	3.16	2.43	1.96	2.66
1954	3.98	3.01	2.26	1.76	2.51
1955	3.57	3.06	2.09	1.47	2.36
1956	3.61	3.15	2.11	1.76	2.53
1957	3.73	3.17	2.39	1.80	2.60
1958	3.78	2.73	2.32	1.83	2.42
1959	3.81	2.89	2.37	1.91	2.54
1960	—	—	—	—	3.03

(continued)

TABLE 9 (concluded)

	Small	Medium	Large	Giant	All Sizes
			SERVICES		
1947	2.82	2.26	2.46	1.41	2.24
1948	3.10	2.38	1.96	.87	2.05
1949	3.22	2.73	1.52	1.11	2.13
1950	2.68	2.26	1.49	1.12	1.83
1951	2.64	2.57	1.20	.92	1.72
1952	n.a.	n.a.	n.a.	n.a.	1.69
1953	2.67	2.38	1.44	.95	1.78
1954	2.70	2.07	1.45	.75	1.62
1955	2.69	1.80	1.41	.80	1.52
1956	2.35	2.30	1.76	.62	1.60
1957	2.85	2.59	1.26	.88	1.68
1958	2.57	2.02	1.28	.74	1.45
1959	3.26	2.27	1.58	1.00	1.82
1960	—	—	—	—	2.12
			CONSTRUCTION		
1947	1.81	1.19	.34	.28	.67
1948	2.21	1.09	.25	.22	.62
1949	2.15	1.00	.38	1.29	.87
1950	1.48	.73	.26	.03	.41
1951	1.35	.89	.27	.13	.44
1952	n.a.	n.a.	n.a.	n.a.	.54
1953	1.67	.75	.36	.25	.52
1954	2.03	.72	.34	.10	.51
1955	1.43	.74	.29	.07	.45
1956	1.50	.86	.35	.12	.50
1957	1.89	.96	.34	.11	.53
1958	1.81	.90	.36	.40	.63
1959	1.60	1.07	.54	.32	.74
1960	—	—	—	—	.93

SOURCE: Treasury *Source Book*. Figures for all sizes in 1952 and 1960 are from *Statistics of Income*.

TABLE 10

Ratio of Bad-Debt Losses to Receivables Outstanding, by Manufacturing Industry, 1947-60

(per cent)

	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958[a]	1959[ab]	1960[ab]
1. *Total manufacturers*	.86	.90	1.16	.77	.72	.65	.84	.79	.72	.73	.84	.88	.96	1.34
2. Beverages	.60	.52	.82	.73	.64	1.87	.61	1.42	.71	.47	.72	1.60	.72	.69
3. Food and kindred products	.79	1.20	1.24	.99	1.08	1.28	1.22	1.22	1.09	1.16	1.29	1.37	1.66	2.01
4. Tobacco manufactures	.02	.05	.07	.05	.12	.04	.05	.21	.16	.14	.22	.21	.38	.64
5. Textile-mill products	.42	.50	.59	.36	.46	.44	.56	.70	.67	.74	.62	.67	.85	1.01
6. Apparel and products	.75	1.13	1.01	.84	.95	.87	1.14	1.05	1.00	1.05	1.22	1.18	1.27	1.19
7. Lumber and wood products	1.45	1.90	2.07	1.15	1.36	1.47	1.83	1.46	1.23	1.52	1.92	1.85	1.61	1.68
8. Furniture and fixtures	1.19	1.29	1.65	1.19	1.21	1.04	1.69	1.45	1.60	1.61	2.00	2.10	1.97	2.47
9. Paper and allied products	.85	.82	.81	.58	.61	.57	.89	.96	.67	.74	.81	.92	.73	.91
10. Printing, publishing	2.02	2.26	2.93	2.29	2.24	2.31	2.45	2.23	1.96	2.11	2.16	2.20	2.13	2.33
11. Chemicals	.86	.77	.95	.76	.67	.62	1.05	.80	.75	.67	.85	.77	.96	1.17
12. Petroleum and products	.72	.64	1.83	.93	.67	.31	.81	.39	.37	.34	.49	.50	.61	1.83
13. Rubber products	.77	.51	1.08	.88	.51	.56	.85	1.06	.98	.88	1.08	1.41	1.39	2.24
14. Leather and products	.66	.67	1.03	.56	.59	.53	.85	.81	.71	.89	.88	1.15	1.12	1.53
15. Stone, clay, and glass products	.78	.95	1.23	.89	.89	.82	1.00	.91	.87	.85	1.00	1.40	1.43	1.76
16. Primary metal industry	—	.81	.62	.48	.29	.37	.47	.34	.35	.43	.40	.35	.52	.74
17. Fabricated metal products	.89	1.10	1.33	.83	.89	.81	1.19	1.09	1.15	1.27	1.26	1.24	1.28	1.64
18. Machinery, excl. transp.	.99	.83	.89	.45	.66	.50	.64	.79	.71	.72	.71	.72	.67	.97
19. Electrical machinery	.77	.58	.67	.58	.55	.42	.62	.72	.55	.59	.70	.89	.80	.93
20. Transportation equipment	.71	.38	.88	.33	.15	.12	.11	.09	.13	.10	.17	.14	.39	.33
21. Motor vehicles and equipment	.25	.26	.55	.35	.20	.15	.28	.25	.17	.21	.32	.44	.35	1.04
22. Ordnance and accessories	—	1.08	2.49	.61	.47	.22	.68	.25	.39	.49	2.37	—	—	—
23. Scientific instruments	—	.80	.79	.78	.42	.51	.50	.52	.58	.48	.78	.56	.54	.57
24. Other manufacturing	1.68	2.11	1.93	1.41	1.41	1.17	1.54	1.48	1.31	1.34	1.63	1.49	1.75	1.81

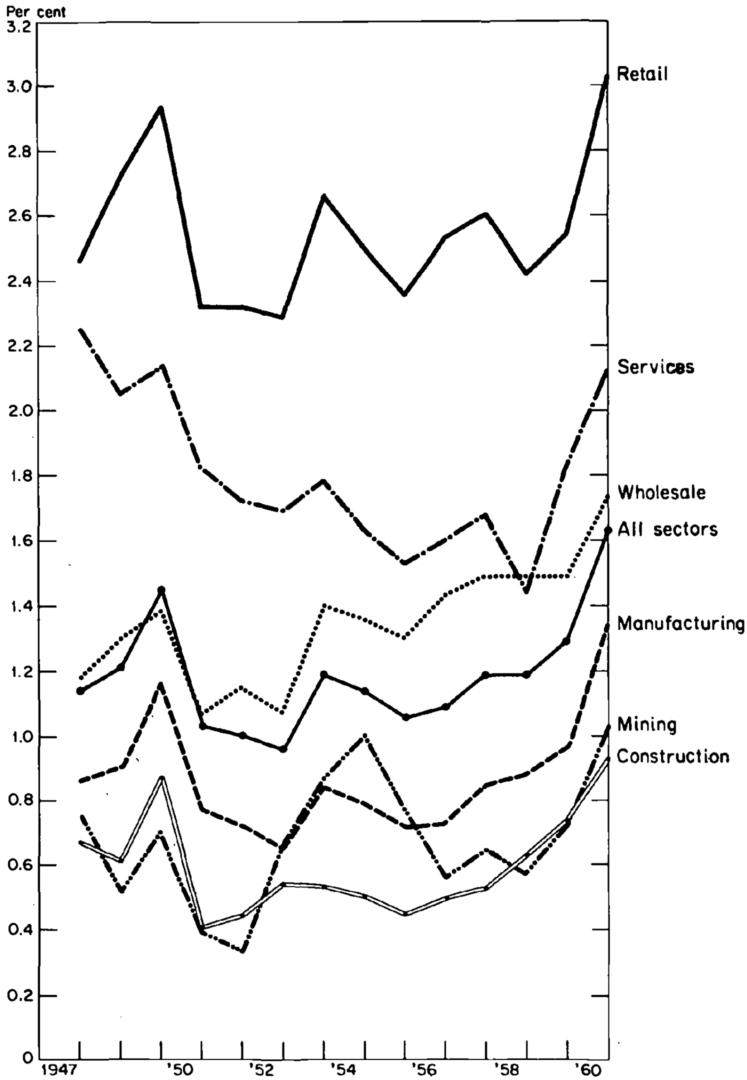
Source: *Statistics of Income.*

[a] Beginning with 1958, small business corporate returns (form 1120-S) are combined with returns of other active corporations.

[b] Includes firms with zero assets for which the Internal Revenue Service provided balance-sheet estimates. See also note a to Table 24.

CHART 4

Ratio of Bad-Debt Losses to Receivables Outstanding, by Sector, 1947-60



SOURCE: Tables 6 and 9.

The result of the autopsies over the years shows that, on the average, 9 per cent of all failures are the result of the poor quality of trade credit extended by the failing firm. In the wholesale sector, receivables difficulties are responsible for the very substantial average of 17 per cent of all failures. The average was 15 per cent in construction, 12 per cent in mining and manufacturing, 6 per cent in commercial services, and 5 per cent in retail (Table 11).

Nor is this problem restricted to very small firms. Dun & Bradstreet found that, in 1962, 15.2 per cent of all failures involving losses of over $100,000 were caused by receivables difficulties. By comparison, of all failures involving losses of less than $5,000, only 6.0 per cent were due to this cause (Table 12). This does not mean that small firms hold higher-quality credit; their higher loss rates testify to the contrary. Rather, it indicates that small firms are the more susceptible to other causes of failure.

The proportion of failures attributable to credit difficulties was fairly stable in the 1950's. This was true for firms grouped by sector or by size class, as shown in Tables 11 and 12. However, since the failure rate rose sharply throughout this period, it would be incorrect to draw the conclusion that stability in the proportion of failures due to credit difficulties indicates stability in the quality of trade credit.

Business Failures as a Measure of Trade Credit Experience

Trade credit is of special significance in the process of business failure since the immediate cause of failure is almost always the debtor's inability to meet his current obligations, the principal of which is trade debt.[4] Trade creditors are generally the initiators of legal action against recalcitrant debtors. As the last in line of receivership, the trade creditor increases his chances of recovering some of his funds the earlier proceedings are begun against a failing firm. To delay would only permit the assets available for distribution to diminish. Thus, the greater the

[4] Liabilities as used by Dun & Bradstreet refers to *current* liabilities and has a special meaning; it includes all accounts and notes payable and all obligations, whether in secured form or not, known to be held by banks, officers, affiliated companies, supplying companies, or the government. It does not include long-term, publicly held obligations. (*The Failure Record Through 1960*, New York, Dun & Bradstreet, Inc., 1961.)

TABLE 11

NUMBER AND PERCENTAGE OF FAILURES ATTRIBUTABLE TO RECEIVABLES DIFFICULTIES, BY SECTOR, 1950-62

	All Firms		*Manufacturing*		*Wholesale*		*Retail*		*Commercial Services*		*Construction*	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
1950	880	9.6	261	12.6	197	19.4	230	5.2	58	7.9	138	15.1
1951	653	8.1	115	7.5	150	18.1	196	4.8	32	4.9	155	16.2
1952	533	7.0	141	8.9	105	14.0	161	4.2	25	4.1	99	11.8
1953	744	8.4	210	11.3	121	13.0	245	5.6	25	3.7	140	13.7
1954	1,064	9.6	288	12.6	186	16.4	329	6.0	62	7.1	194	14.9
1955	1,075	9.8	295	13.4	213	18.3	294	5.5	48	5.6	225	16.0
1956	1,129	8.9	270	11.8	202	16.7	336	5.3	56	5.5	266	14.5
1957	1,346	9.8	292	12.1	208	16.8	407	5.9	74	6.8	368	17.5
1958	1,601	10.7	383	14.3	290	20.3	473	6.3	71	6.0	381	17.6
1959	1,279	9.1	308	12.5	223	16.1	378	5.5	64	5.1	308	14.9
1960	1,375	8.9	308	11.8	242	16.4	355	4.8	77	5.6	394	15.1
1961	1,759	10.3	390	13.8	342	19.7	473	5.7	99	6.7	454	16.5
1962	1,574	10.0	356	13.8	323	20.0	373	4.9	86	6.4	436	16.1
Average		9.2		12.0		17.3		5.4		5.8		15.4

SOURCE: Dun & Bradstreet. Figures may not add to totals because of rounding.

reliance upon trade debt as a form of financing, the greater the debtor's exposure to failure.

The annual dollar volume of failure liabilities increased from $205 million in 1947 to more than $1.2 billion in 1962. Table 13 provides a breakdown of the dollar volume by sector; these are the best available estimates of the source of the credit losses cited in Table 5.

The ratio of failure liabilities to current liabilities rose for all nonfinancial firms from 0.39 per cent in 1947 to 0.56 per cent in 1957, as shown in Table 14. Substantial increases in this ratio took place in most sectors, particularly after 1950.

In terms of numbers of firms, the failure rate rose in every sector. The rate of failure per 10,000 firms in the economy rose from fourteen

TABLE 12

PERCENTAGE OF FAILURES ATTRIBUTABLE TO RECEIVABLES DIFFICULTIES, BY SIZE OF LIABILITY, 1953-62

	Liability Size (dollars)			
	Under 5,000	5,000 to 25,000	25,000 to 100,000	100,000 and Over
1953	3.8	7.1	11.5	14.0
1955	3.3	9.1	13.6	13.9
1956	4.4	7.7	12.0	14.4
1957	5.8	7.9	13.0	16.9
1958	6.3	9.2	13.2	16.4
1959	4.6	7.9	11.3	14.4
1962	6.0	7.2	12.7	15.2
Average	4.9	8.0	12.5	15.0

SOURCE: Dun & Bradstreet.

in 1947 to sixty-one in 1962, more than quadrupling in fifteen years (Table 15). The failure rate based on the number of firms differs at times in direction and magnitude of change from the rate based on dollar liabilities. This is especially notable in the manufacturing sector.

Chart 5 compares several of the historical or *ex post* measures of trade credit quality; all have been moving upward since 1952.

Payment Delinquency as a Measure of Trade Credit Experience

The two principal sources of information on trade credit delinquency are the Credit Research Foundation (CRF) and the American Credit Indemnity Company (ACI). The CRF conducts a quarterly survey of a broad group of firms, and the ACI tabulates information on delinquencies supplied by the clients whose credit it insures.

Both sources agree that, between 1951 and 1959, delinquencies averaged about 13 per cent of all trade credit outstanding. From surveys conducted between 1959 and 1961, the CRF also determined that an

TABLE 13

FAILURE LIABILITIES BY SECTOR, 1947-62
(million dollars)

	Total	Mining	Manu-facturing	Whole-sale	Retail	Commercial Services	Con-struction
1947	204.6	.7	142.0	21.1	21.5	12.1	7.2
1948	234.6	2.6	127.7	26.0	39.8	22.8	15.6
1949	308.1	8.5	134.8	43.2	71.3	23.1	27.2
1950	248.2	3.3	91.7	33.6	72.7	21.2	25.7
1951	259.5	6.8	84.1	41.6	72.9	16.6	37.5
1952	283.3	3.8	101.2	40.9	74.5	25.8	36.1
1953	394.1	3.0	155.8	52.2	117.3	22.5	43.3
1954	462.6	8.0	163.3	56.3	145.5	32.7	56.8
1955	449.4	5.2	151.8	57.7	121.6	29.9	83.2
1956	562.7	8.2	183.0	74.7	156.0	39.9	100.8
1957	615.3	11.6	185.2	77.9	186.8	43.4	110.3
1958	728.3	17.6	228.0	82.0	225.3	60.3	115.1
1959	692.8	8.6	199.3	82.0	226.8	54.2	121.9
1960	938.6	19.7	269.9	107.2	241.1	99.4	201.4
1961	1,090.1	16.8	308.5	158.5	333.0	80.3	193.0
1962	1,213.6	48.3	351.7	126.4	349.7	94.0	243.5

SOURCE: Dun & Bradstreet. Components will not add up to totals because of rounding.

average of 2.9 per cent of manufacturers' trade credit outstanding was over ninety days past due. In the same period in the wholesale sector, an average of 7.3 per cent of all trade outstanding was over ninety days past due.

The rate of delinquency of trade credit has been rising in the postwar period. The ACI data show a rise in delinquency from 4.9 per cent of total trade credit in 1947 to 17.9 per cent in 1960 (Table 16). This trend, however, may reflect the changing fortunes of those industries which use credit insurance, rather than the trend for the economy as a whole. The CRF data (Table 17 and Chart 6), however, tend to confirm the upward trend. Before 1959, these data show the *source* of the delinquencies (i.e., behavior of trade debtors). Delinquency rates were highest on trade credit extended to retailers, and lowest on credit to

TABLE 14

RATIO OF FAILURE LIABILITIES TO CURRENT LIABILITIES OF ACTIVE CORPORATIONS, BY SECTOR, 1947-60

(per cent)

	Total (A)	Total (B)	Mining	Manufacturing	Wholesale	Retail	Construction
1947	.394	.495	.052	.573	.318	.410	.432
1948	.427	.536	.154	.494	.370	.727	.784
1949	.588	.768	.535	.596	.643	1.334	1.279
1950	.373	.445	.169	.283	.348	1.030	.934
1951	.339	.395	.300	.208	.402	1.013	1.132
1952	.349	.421	.167	.244	.406	.988	.999
1953	.481	.575	.134	.360	.542	1.489	1.166
1954	.555	.676	.363	.405	.533	1.738	1.363
1955	.474	.542	.192	.317	.434	1.138	1.721
1956	.526	.625	.279	.357	.506	1.393	1.768
1957	.555	.680	.399	.374	.521	1.562	1.738
1958	n.a.	.790	.593	.459	.539	1.840	1.658
1959	n.a.	.651	.290	.343	.470	1.618	1.557
1960	n.a.	.842	.602	.454	.593	1.529	2.401

SOURCE: Failure liabilities (current liabilities of failed firms) are of corporate and unincorporated firms reported by Dun & Bradstreet (see Table 13). Current liabilities are of corporations only (Treasury *Source Book*). The service sector is not included since more than half of its sales (62 per cent) were by unincorporated firms; the corporate data, therefore, are not sufficiently representative of this sector. The ratios for certain other sectors (e.g., retail trade and construction) may also be affected by the lack of current liabilities of unincorporated firms (see Appendix Table A-2).

(A) Current liabilities used in this ratio for the total economy are for corporate and unincorporated firms combined (Raymond W. Goldsmith and Robert E. Lipsey, *Studies in the National Balance Sheet of the United States*, Princeton for NBER, 1963). This is a more accurate determination of the levels of these ratios.

(B) Here the current liabilities are of corporations alone. These have been presented for the longer time perspective they provide for trend analysis.

TABLE 15

FAILURE RATE PER 10,000 FIRMS BY SECTOR, 1947-62

	Total[a]	Manu-facturing	Wholesale	Retail	Commercial Services	Con-struction
1947	14	41	18	7	4	8
1948	20	46	26	12	6	13
1949	34	70	42	24	10	24
1950	34	64	38	24	10	25
1951	31	46	30	22	9	25
1952	29	47	27	21	8	20
1953	33	56	33	24	9	25
1954	42	70	40	30	12	30
1955	42	69	40	29	12	32
1956	48	73	42	34	14	39
1957	52	70	41	36	14	45
1958	56	79	48	40	15	48
1959	52	73	44	35	15	44
1960	57	78	46	37	16	55
1961	64	85	54	41	16	58
1962	61	79	49	37	15	57

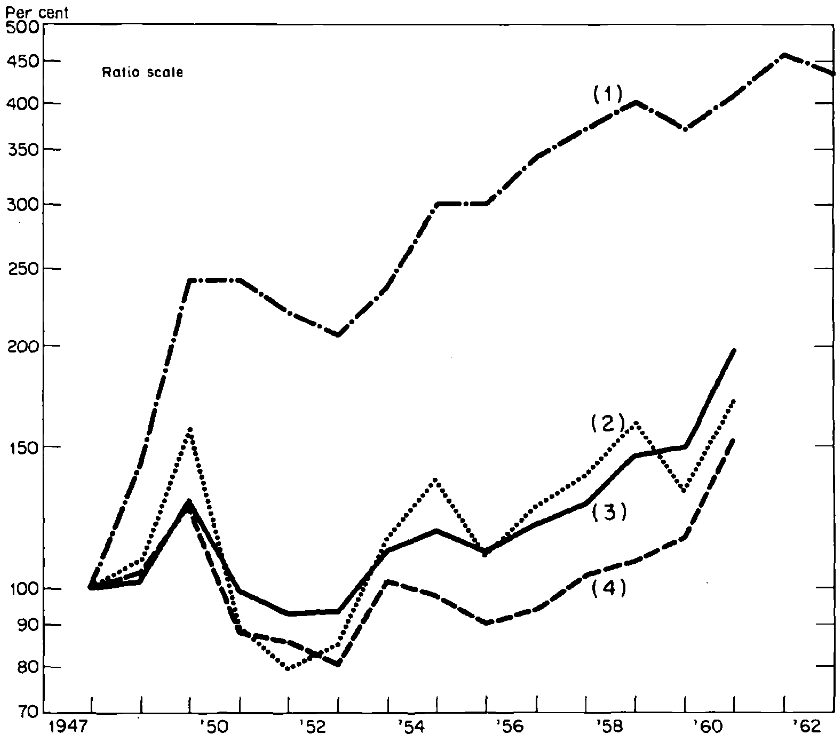
SOURCE: Ratio of the number of failures reported by Dun & Bradstreet for each sector to the total number of firms reported by the Department of Commerce for each sector.

[a] Failure rate reported by Dun & Bradstreet based on total listings in Dun & Bradstreet's *Reference Book*.

manufacturers. Since 1959, the CRF data refer to delinquencies by type of creditor rather than by debtor. From these data it appears that delinquency rates on credit extended by manufacturers were much lower than on credit extended by wholesalers. The former remained substantially constant during 1959-61, rising sharply in 1962, while the latter moved irregularly.

CHART 5

Rates of Trade Credit Losses and Business Failures, Major Business Sectors Combined, 1947-62



1. Rate of failure per 10,000 firms. All business sectors from Dun & Bradstreet's *Failure Records*.
2. Ratio of failure liabilities (current liabilities of failed firms) to current liabilities, all business sectors combined. Failure liabilities reported by Dun & Bradstreet for corporate and unincorporated firms. Current liabilities are for corporations only, as reported in *Statistics of Income*. It combines accounts payable, debt less than one year, other current liabilities, and "other liabilities."
3. Ratio of bad-debt losses to sales; mining, manufacturing, wholesale, and construction corporations. Data from Treasury *Source Book*.
4. Ratio of bad-debt losses to trade credit outstanding; mining, manufacturing, wholesale, and construction corporations. Data from Treasury *Source Book*.

TABLE 16

PERCENTAGE OF INSURED TRADE CREDIT PAST DUE, 1947-60

	Receivables as Per Cent of Sales	Past-Due Receivables as Per Cent of		Receivables Over 60 Days Past Due as Per Cent of			Sample Size (no. of firms)
		Sales	Outstandings	Sales	Outstandings	Past Dues	
1947	8.5	0.4	4.9	0.1	1.1	22.7	281
1948	8.6	0.5	6.3	0.1	1.4	21.7	907
1949	7.8	0.6	7.6	0.2	2.1	27.3	907
1950	9.4	0.6	6.7	0.2	1.7	25.2	202
1951	9.5	0.8	8.0	0.2	1.6	20.1	939
1952	10.0	1.0	10.3	0.2	2.3	22.7	991
1959	11.6	1.6	13.9	0.4	3.8	27.1	365
1960	11.3	2.0	17.9	0.7	6.1	34.4	67
Average[a]	9.6	0.9	9.4	0.3	2.5	25.1	—

SOURCE: American Credit Indemnity Company. As reported on applications for renewal of credit insurance.

[a] This average is a simple mean of the annual percentages.

Summary

The rate of loss in trade credit is the highest of the major forms of financing. On the whole, credit loss rates rose moderately through most of the postwar period. But this seeming stability may be attributable to the allocation of collection costs, most of which are not included in credit losses but are considered an operating expense. Were collection costs properly allocated, the loss rate would be at an even higher level than that currently being reported, and would exhibit a rising trend. This assumption is based on the rising trend in trade credit delinquencies and the sharp rise in the rate of business failures, whether measured by the number of firms or the volume of failure liabilities. Collection expenses are assumed, therefore, to have risen accordingly. It may be concluded from all available evidence that there was a significant and widespread decline in the quality of trade credit in the 1950's.

TABLE 17

DELINQUENCY RATES ON TRADE CREDIT, 1951-62
(per cent past due)

Year and Month (as of end of month)	Retailer	Wholesaler	Manufacturer
		BY TYPE OF DEBTOR [a]	
November 1951	15.4	12.3	11.1
February 1952	17.1	13.6	13.8
May	15.8	12.6	9.5
August	16.7	15.1	11.8
November	17.2	16.0	12.3
February 1953	17.0	14.3	11.3
May	18.6	13.8	12.2
August	19.2	15.2	12.6
November	19.9	14.5	13.8
February 1954	20.2	15.2	14.4
May	19.0	15.3	12.7
August	17.8	15.8	13.7
November	18.3	15.1	12.7
February 1955	18.0[a]	14.7[a]	13.0[a]
May	14.5	12.8	7.6
August	14.8	10.9	8.9
November	16.0	12.3	8.4
March 1956	15.0	11.5	10.0
June	15.1	10.9	11.0
September	15.8	12.0	10.5
December	17.8	12.0	11.4
March 1957	17.5	12.6	12.0
June	18.1	12.2	11.5
September	16.8	12.3	11.1
December	20.1	14.3	13.1
March 1958	17.5	14.1	12.5
June	17.8	12.2	14.1
September	16.2	11.6	13.5
December	19.3	13.1	12.1

(continued)

TABLE 17 (concluded)

Year and Month (as of end of month)	Wholesaler	Manufacturer
	BY TYPE OF CREDITOR[b]	
March 1959	n.a.	14.5
June	n.a.	13.0
September	n.a.	16.5
December	n.a.	15.5
March 1960	28.0	15.9
June	25.0	15.3
September	25.4	16.1
December	27.8	15.6
March 1961	25.3	15.9
June	25.7	15.1
September	23.3	15.8
December	29.8	17.2
March 1962	23.2	15.0
June	24.7	17.0
September	26.1	17.9
December	23.8	19.7

Notes to Table 17

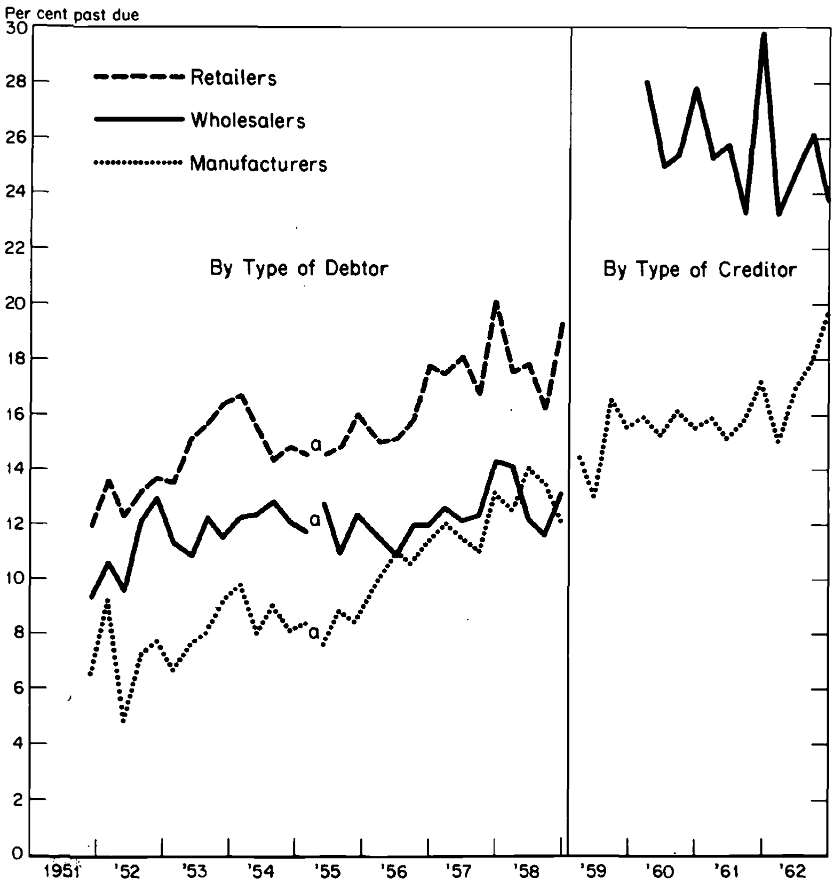
Source: *National Summary of Accounts Receivable,* Credit Research Foundation, Inc.

[a] The series shown for May 1955 through December 1958 (discontinued thereafter) represent the median per cent of the *dollar value* of trade credit past due from firms in the respective sectors. The series from November 1951 through February 1955 represent the mean per cent of the *number* of trade accounts past due from firms in the respective sectors.

[b] The two series shown for 1959 through 1962 represent the median per cent of the dollar value of trade credit outstanding that is past due, reported by firms in the respective sectors. These series are based on quarterly surveys of 200-300 large firms in about eighteen different industries.

CHART 6

Delinquency Rates on Trade Credit, 1951-62



Source: Table 17.

[a] To align the series ending February 1955, based on the number of trade accounts past due, with the subsequent series beginning May 1955, based on the dollar value of trade credit past due, the former were arbitrarily lowered so that the average for November 1954 and February 1955 was equal to the average for May 1955 and August 1955. That is, the figure for each quarter in the earlier segment was lowered 3.5 percentage points for retailers, 3.0 for wholesalers, and 4.6 for manufacturers. The relationship of the components in the first segment was altered by this adjustment.