

LEGAL AND INSTITUTIONAL METHODS APPLIED TO THE DEBITING OF DIRECT DISCOUNTS—V. THE NEW YORK STUDY

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I

THIS, the fifth article of the series, is devoted to the study made to find the sequences to serve as the standards of comparison in measuring the degree by which the behavior of the parties ("the facts") in *Delano v. Equitable Trust Company*¹ deviated from the institutions of the jurisdiction. The *Delano* case was decided in 1920. The decision was made at a Special Term of the Supreme Court in Kings County by a justice of the Second Judicial District.² That district includes the four counties of Long Island, Kings, Queens, Nassau, and Suffolk, and the one county of Staten Island, Richmond. Accordingly the sequences sought were those of the culture in these five counties ten years ago.

The investigation was begun January 12, 1931 and continued for two weeks. It was conducted by the junior author and five competent men under his immediate direction. Two devices for securing information from the banks were employed: the worksheet on which were recorded the details of maturing direct time notes; the systematic interview in which were secured answers to a list of questions.

The headings of the columns of the worksheets are:

(1) What is the face amount of the note? List the number and amount of each note which matured on the day selected.

(2) Is the note secured by collateral?

(3) At the time of the loan or discount were the proceeds of the note credited to the customer's checking account?

(4) At the time of loan or discount did you make express arrangements with the customer providing for a charge to his account on the day of maturity?

(5) Was a notice of the approaching maturity of the customer's note given to the maker prior to maturity?

(6) Was the note actually paid or renewed (that is were debit and credit entries actually made) prior to the day of maturity?

¹ 110 Misc. 704, 181 N. Y. Supp. 852 (Sup. Ct. 1920).

² A justice of the Supreme Court is required to be a resident of his district. "The facts" in the *Delano* case happened in another judicial district. The plaintiff's note was discounted at one and debited at another of the Manhattan branches of the Equitable Trust Company.

(7) At the opening for business on the day of maturity (the customer not having previously given either his check or instructions to charge the note) did the bookkeeping department upon instructions from the loan department make a charge for the amount of the note to the customer's checking account?

(8) If the answer in the previous column was "no" was the answer "no" because the customer's balance was insufficient?

(9) Was a check for more than the amount of the balance remaining after the charge thereafter presented against the account?

(10) Was the check honored?

(11) Did the bookkeeping department upon instructions from the loan department place a hold against the customer's account for the amount of the note?

(12) Was a check for more than the amount of the free balance (the balance not covered by the hold) thereafter presented against the account?

(13) Was the check honored?

(14) If the customer made a payment on the day of maturity by giving a check, instructions to charge, or cash, what was the amount paid?

(15) What was the amount renewed?

(16) If payment was made, indicate whether the customer gave his check on this bank, instructed the bank to charge, gave cash, or gave a check upon another bank.

(17) If the customer's check on this bank or instructions to charge were given did the bookkeeping department, upon instructions from the loan department, make a charge to the customer's account?

(18) Was a check for more than the amount of the balance remaining after the charge thereafter presented against the account?

(19) Was the check honored?

(20) If a charge was not made at the opening for business and the customer in no way communicated with the bank did the bookkeeping department, upon instructions from the loan department, make a charge for the amount of the note?

(21) At what hour was the charge made?

(22) If the answer in the previous column was "no," was the answer "no" because the customer's balance was insufficient?

(23) Was a check for more than the amount of the balance remaining after such charge thereafter presented against the account?

(24) Was the check honored?

(25) Where a charge was made at any time on the day of maturity without any communication from the customer was a notice or advice of the charge sent to the customer?

(26) Was the note unprovided for by payment or renewal at the close of business on the day of maturity?

(27) If so, indicate briefly what was done.

The worksheets were left at the banks with the necessary uniform explanations and instructions. They were filled in by an officer or teller in the loan and discount department with the data for all the maturities of three successive days. They were returned to the investigators who called for them in person. Forthwith the worksheets were examined for ambiguities and incompleteness and, in the few cases in which it appeared to be necessary, were corrected and completed. The officer or teller was compensated for his work. Of the 43 worksheets 1

was later rejected as defective. Of the 870 note records entered on the worksheets which were retained for study, 6, scattered over 5 worksheets, were ultimately excluded for ambiguity or incompleteness. Except as to the entries in columns 8, 9, 10, 12, 13, 18, 19, 22, 23, and 24, it is believed that the record of each of the 837³ notes is reliable. The entries in these columns do not refer to aspects of behavior constituting direct discount transactions and are not part of the data tabulated in the following tables. It is believed that they must in most cases be taken as statements of informed opinion and nothing more. The records are also comparable. Though the worksheets do not record the transactions of the same three days at all the banks, there is no reason to believe that the happening or frequency of the aspects of behavior recorded varied with the day of the week or during the two weeks of the investigation.

The interviews secured answers to the following list of questions:

Statement of general situation. You are the holder of a *time note made by one of your customers* which you have *discounted for him* or upon which you have *made him a loan*.

Yes No

1. Approximately what percentage of the time notes which you discounted for or upon which you made loans to the customer maker:
 - a. Are not secured by collateral?

1930					
1920					
1930					
1920					
 - b. Are secured by collateral?

1930					
1920					
1930					
1920					
2. In approximately what percentage of the cases where you discount or make a loan to a customer upon his time note are the proceeds of the discount or loan credited to the customer's checking account:
 - a. Where the note is not secured by collateral?

1930					
1920					
1930					
1920					
 - b. Where the note is secured by collateral?

1930					
1920					
1930					
1920					
3. At the time of discount or loan do you make express arrangements with the customer providing for a charge to his account on the day of maturity:
 - a. Where the note is not secured by collateral?

1930	—	—			
1920	—	—			
1930	—	—			
1920	—	—			
 - b. Where the note is secured by collateral?

1930					
1920					
1930					
1920					
4. Do you send the maker a notice advising him of the approaching maturity of his note:

³ In addition to the 6 excluded for ambiguity, 27 others were excluded because they represented transactions not within the group under investigation.

	Yes	No	
1930	—	—	a. Where the note is not secured by collateral?
1920	—	—	
1930	—	—	b. Where the note is secured by collateral?
1920	—	—	
			5. At the opening for business on the day of maturity, where the customer's balance is sufficient, do you make a charge for the amount of the note to the customer's account without either instructions from him or his check:
1930	—	—	a. Where the note is not secured by collateral?
1920	—	—	
1930	—	—	b. Where the note is secured by collateral?
1920	—	—	
			6. In approximately what percentage of the cases where you charge a note at the opening for business are you called upon to honor checks drawn against the account for more than the balance remaining after such charge:
1930			a. Where the note is not secured by collateral?
1920			
1930			b. Where the note is secured by collateral?
1920			
			7. In approximately what percentage of the cases do you honor checks drawn against the customer's account for more than the balance remaining after such charge:
1930			a. Where the note is not secured by collateral?
1920			
1930			b. Where the note is secured by collateral?
1920			
			8. At the opening for business on the day of maturity where the balance is sufficient do you place a hold against the customer's account for the amount of the note:
1930	—	—	a. Where the note is not secured by collateral?
1920	—	—	
1930	—	—	b. Where the note is secured by collateral?
1920	—	—	
			9. In approximately what percentage of the cases where you place a hold against the customer's account on the morning of the day of maturity are you called upon to honor checks drawn against the account for more than the free balance:
1930			a. Where the note is not secured by collateral?
1920			
1930			b. Where the note is secured by collateral?
1920			
			10. In approximately what percentage of the cases where you place a hold against the customer's account on the morning of the day of maturity do you honor checks drawn against the customer's account for more than the free balance:
1930			a. Where the note is not secured by collateral?
1920			
1930			b. Where the note is secured by collateral?
1920			

	Yes	No	
			11. On the day of maturity where the balance is sufficient do you charge the customer's account with the amount of a check drawn on you and given to you for the note:
1930	—	—	a. Where the note is not secured by collateral?
1920	—	—	
1930	—	—	b. Where the note is secured by collateral?
1920	—	—	
			12. In approximately what percentage of the cases where you charge the customer's account with the amount of a check given for the note are you called upon to honor checks drawn against the account for more than the balance remaining after such charge:
1930			a. Where the note is not secured by collateral?
1920			
1930			b. Where the note is secured by collateral?
1920			
			13. In approximately what percentage of the cases where you charge the customer's account with the amount of a check given for the note do you honor checks drawn against the account for more than the balance remaining after such charge:
1930			a. Where the note is not secured by collateral?
1920			
1930			b. Where the note is secured by collateral?
1920			
			14. On the day of maturity where the balance is sufficient do you charge the customer's account with the amount of the note upon the receipt of instructions, such as personal, telephone, or letter instructions, to do so:
1930	—	—	a. Where the note is not secured by collateral?
1920	—	—	
1930	—	—	b. Where the note is secured by collateral?
1920	—	—	
			15. In approximately what percentage of the cases where you charge the customer's account with the amount of the note in accordance with instructions to do so are you called upon to honor checks drawn against the account for more than the amount of the balance remaining after such charge:
1930			a. Where the note is not secured by collateral?
1920			
1930			b. Where the note is secured by collateral?
1920			
			16. In approximately what percentage of the cases where you charge the customer's account with the amount of the note upon instructions to do so do you honor checks drawn against the account for more than the balance remaining after such charge:
1930			a. Where the note is not secured by collateral?
1920			
1930			b. Where the note is secured by collateral?
1920			
			17. At the close of business on the day of maturity where the balance is sufficient do you charge the customer's

- | | Yes | No | |
|------|-----|----|---|
| | | | account with the amount of the note without either instructions from him or his check: |
| 1930 | — | — | a. Where the note is not secured by collateral? |
| 1920 | — | — | |
| 1930 | — | — | b. Where the note is secured by collateral? |
| 1920 | — | — | |
| | | | 18. In approximately what percentage of the cases where you charge a note at the close of business without instructions or check are you called upon to honor checks drawn against the account for more than the balance remaining after such charge: |
| 1930 | | | a. Where the note is not secured by collateral? |
| 1920 | | | |
| 1930 | | | b. Where the note is secured by collateral? |
| 1920 | | | |
| | | | 19. In approximately what percentage of the cases where you charge a note at the close of day without instructions or check do you honor checks drawn against the account for more than the balance remaining after such charge: |
| 1930 | | | a. Where the note is not secured by collateral? |
| 1920 | | | |
| 1930 | | | b. Where the note is secured by collateral? |
| 1920 | | | |
| | | | 20. Where you charge the note to the customer's account without instructions or check, either at the opening or at the close of day, do you send the customer a notice or advice slip informing him that you have charged his account: |
| 1930 | — | — | a. Where the note is not secured by collateral? |
| 1920 | — | — | |
| 1930 | — | — | b. Where the note is secured by collateral? |
| 1920 | — | — | |
| | | | 21. Approximately what percentage of your unsecured notes which were discounted or upon which loans were made to customers are: |
| 1930 | | | a. Taken care of, <i>i.e.</i> , paid, renewed, or otherwise provided for by the close of business on the day of maturity? |
| 1920 | | | |
| 1930 | | | b. Not taken care of by the close of business on the day of maturity? |
| 1920 | | | |
| | | | 22. Of your unsecured notes that are taken care of approximately what percentage are: |
| 1930 | | | a. Paid in full by the application of funds to the credit of the customer in his checking account? |
| 1920 | | | |
| 1930 | | | b. Renewed in full, paid in part, or paid in full but not by the application of funds to the credit of the customer in his checking account? |
| 1920 | | | |
| | | | 23. Of the unsecured notes that are paid in full by the application of funds to the credit of the customer in his checking account approximately what percentage are paid: |

Yes No

- 1930 a. Before the day of maturity?
1920
- 1930 b. On the day of maturity?
1920
- 1930 c. After the day of maturity?
1920
24. Of the unsecured notes that are paid in full by the application of funds to the credit of the customer in his checking account before the day of maturity, approximately what percentage are paid:
- 1930 a. By a charge to the customer's account of the amount
1920 of the note in accordance with instructions given at the time of discount or loan?
- 1930 b. By a charge to the customer's account of the amount
1920 of a check given for the note?
- 1930 c. By a charge to the customer's account of the amount
1920 of the note in accordance with instructions given subsequent to the time of loan or discount?
- 1930 d. By a charge to the customer's account of the amount
1920 of the note without either instructions or check?
25. Of the unsecured notes that are paid in full by the application of funds to the credit of the customer in his checking account on the day of maturity, approximately what percentage are paid:
- 1930 a. By a charge to the customer's account of the amount
1920 of the note in accordance with instructions given at the time of discount or loan?
- 1930 b. By a charge to the customer's account of the amount
1920 of the note without instructions or check made at the opening for business?
- 1930 c. By a charge to the customer's account of the amount
1920 of a check given for the note?
- 1930 d. By a charge to the customer's account of the amount
1920 of the note in accordance with instructions to do so given subsequent to the time of loan or discount?
- 1930 e. By a charge to the customer's account of the amount
1920 of the note without instructions or check made at the close of business?
26. Of the unsecured notes that are paid in full by the application of funds to the credit of the customer in his checking account after the day of maturity, approximately what percentage are paid:
- 1930 a. By a charge to the customer's account of the amount
1920 of the note in accordance with instructions given at the time of discount or loan?
- 1930 b. By a charge to the customer's account of the amount
1920 of a check given for the note?
- 1930 c. By a charge to the customer's account of the amount
1920 of the note in accordance with instructions given subsequent to the time of discount or loan?
- 1930 d. By a charge to the customer's account of the amount
1920 of the note without either instructions or check?

- | Yes | No | |
|------|----|--|
| | | 27. Approximately what percentage of your secured notes which were discounted or upon which loans were made to customers are: |
| 1930 | | a. Taken care of, <i>i.e.</i> , paid, renewed, or otherwise provided for, by the close of business on the day of maturity? |
| 1920 | | |
| 1930 | | b. Not taken care of by the close of business on the day of maturity? |
| 1920 | | |
| | | 28. Of your secured notes that are taken care of approximately what percentage are: |
| 1930 | | a. Paid in full by the application of funds to the credit of the customer in his checking account? |
| 1920 | | |
| 1930 | | b. Renewed in full, paid in part, or paid in full but not by the application of funds to the credit of the customer in his checking account? |
| 1920 | | |
| | | 29. Of the secured notes that are paid in full by the application of funds to the credit of the customer in his checking account approximately what percentage are paid: |
| 1930 | | a. Before the day of maturity? |
| 1920 | | |
| 1930 | | b. On the day of maturity? |
| 1920 | | |
| 1930 | | c. After the day of maturity? |
| 1920 | | |
| | | 30. Of the secured notes that are paid in full by the application of funds to the credit of the customer in his checking account before the day of maturity, approximately what percentage are paid: |
| 1930 | | a. By a charge to the customer's account of the amount of the note in accordance with instructions given at the time of discount or loan? |
| 1920 | | |
| 1930 | | b. By a charge to the customer's account of the amount of a check given for the note? |
| 1920 | | |
| 1930 | | c. By a charge to the customer's account of the amount of the note in accordance with instructions given subsequent to the time of loan or discount? |
| 1920 | | |
| 1930 | | d. By a charge to the customer's account of the amount of the note without either instructions or check? |
| 1920 | | |
| | | 31. Of the secured notes that are paid in full by the application of funds to the credit of the customer in his checking account on the day of maturity, approximately what percentage are paid: |
| 1930 | | a. By a charge to the customer's account of the amount of the note in accordance with instructions given at the time of discount or loan? |
| 1920 | | |
| 1930 | | b. By a charge to the customer's account of the amount of the note without instructions or check made at the opening for business? |
| 1920 | | |
| 1930 | | c. By a charge to the customer's account of the amount of a check given for the note? |
| 1920 | | |
| 1930 | | d. By a charge to the customer's account of the amount |

	Yes	No
1920		of the note in accordance with instructions to do so given subsequent to the time of loan or discount?
1930		e. By a charge to the customer's account of the amount
1920		of the note without instructions or check made at the close of business?
		32. Of the secured notes that are paid in full by the application of funds to the credit of the customer in his checking account after the day of maturity, approximately what percentage are paid:
1930		a. By a charge to the customer's account of the amount
1920		of the note in accordance with instructions given at the time of discount or loan?
1930		b. By a charge to the customer's account of the amount
1920		of a check given for the note?
1930		c. By a charge to the customer's account of the amount
1920		of the note in accordance with instructions given subsequent to the time of discount or loan?
1930		d. By a charge to the customer's account of the amount
1920		of the note without either instructions or check?

The answers were given by an officer or teller in the loan and discount department except in small banks and branches. In them the officer interviewed was in charge of and acquainted with the operations of that department. Confidential use of the answers was promised. The questions were asked and answered by word of mouth. The answers were immediately recorded. Generally the questions were asked in the order in which they appear, but in many cases an interview was permitted to take its own course. In such instances the interview was always concluded by a review of the recorded answers and the entering of those not yet entered. In 5 of the 62 interviews the interview or its record was judged to be unsatisfactory and the record rejected. Most of the questions dealt with matters of banking practice in regularly recurring situations and not with matters of policy or the action taken in exceptional situations. The answers purported to state that practice. Some questions asked for estimates of frequency. The fact that the questions did not seek to elicit any information which would be embarrassing to the person answering or to his bank, together with the confidential use of the information which was promised, must have tended to eliminate the likelihood, if any, of colored or falsified answers. Consequently it is believed that the answers are comparable and, with the exception of the answers to questions asking for estimates of frequency, are reliable. The reliability of these estimates will be discussed below.

The banks from which the sample was taken were those in existence in July, 1920 and still doing business in January, 1931. Here, as elsewhere in this article, "bank" refers to an office in

which a commercial banking business is conducted, whether the office be the only, the head, or a branch office.⁴ The sample was selected in the following manner. In Suffolk and Nassau, the banks in existence in July, 1920 and still doing business in January, 1931 were listed in alphabetical order and the odd numbers chosen for the sample. In Kings, Queens, and Richmond, it was not possible to follow this orderly procedure. The limited cooperation of several large banks having branches in these counties necessitated the selection of the banks designated by the head offices. The unwillingness of two other large banks to cooperate at all resulted in a further reduction of the number of banks from which the sample might be taken. In consequence the banks of Kings and Queens fell into three groups: first, branches of non-cooperating banks; second, branches of banks offering limited cooperation; and third, all other banks. In Kings, the sample included the designated branches of the second group and all but one of the banks of the third. One half of the banks in the sample were clustered around Borough Hall and the remainder were scattered over the eastern, central, and southern parts of the county. In Queens also, the sample included the designated branches of the second group and all but one of the banks of the third. They were in Long Island City and two outlying towns. In Kings and Queens, worksheets and interviews were also obtained from a number of banks not in existence in 1920. In Richmond, 2 of the 7 banks in existence in 1920 were branches of non-cooperating banks. 4 of the remaining 5 were visited.

Table I shows the number and distribution by counties of the banks, in existence in 1920 and not in existence in 1920, from which properly filled in worksheets⁵ and satisfactory interviews accurately recorded⁶ were secured. The number of banks⁷ and the population⁸ in each of the five counties for 1920 and 1930 also appear in the table, thereby making two possible methods of weighting the sample by counties available.

In reporting this study there is no occasion to summarize the

⁴ In Kings County three branches of one system were included in the sample. But in no other county were more than two branches of the same system included.

⁵ One worksheet was rejected.

⁶ Five reports of interviews were rejected.

⁷ In determining the total number of banks in existence in 1920, the number which survived to 1931, and the total number in existence in 1931, the following were relied upon: *Rand McNally Bankers Directory, July 1920, January 1922, January 1924, January 1926, January 1928, January 1930, July 1930*; *Annual Report of the Superintendent of Banks, New York, 1920-1929*; *Bankers' Encyclopedia, July 1920*; and *Polk Bankers' Encyclopedia, July 1930*.

⁸ *Abstract of the Fourteenth Census of the United States, 1920, 38*; *Fifteenth Census of the United States, 1930, Pamphlets, New York*.

TABLE I

COUNTY	DISTRIBUTION OF POPULATION AND BANKS										SAMPLE										AVAILABLE WEIGHTINGS				
	POPULATION					Banks in Existence in 1920	BANKS IN EXISTENCE IN 1930			BANKS IN EXISTENCE IN 1920 FROM WHICH WERE SECURED					ALL BANKS IN EXISTENCE IN 1930 FROM WHICH WERE SECURED					% of Total Population in each County		% of Total Number of Banks in each County			
	Area Sq. Miles	1920		1930			Surviving from 1920	Organized after 1920	Total 1930	Worksheets ¹	% of all 1920 banks	Interviews ²	% of all 1920 banks	Worksheets and Interviews	% of all 1920 banks	Worksheets ¹	% of all 1930 banks	Interviews ²	% of all 1930 banks	Worksheets and Interviews	% of all 1930 banks	1920		1930	
		Totals	Per Sq. Mile	Totals	Per Sq. Mile																	1920	1930	1920	1930
Kings, L. I. (Brooklyn Borough, N. Y. C.).....	71	2,018,350	28,427.5	2,560,401	30,062.0	48	44	93	137	9	18.77	11	22.02	8	16.07	13	9.50	14	10.22	10	7.30	71.00	60.08	31.17	38.02
Queens, L. I. (Queens Borough, N. Y. C.)	108	469,042	4,313.0	1,079,129	9,991.0	28	20	63	69	2	7.14	4	28.57	2	7.14	5	5.02	10	11.24	4	4.49	16.51	25.32	18.18	25.28
Nassau, L. I.	274	120,120	460.3	303,053	1,100.0	35	33	34	67	9	25.71	15	42.86	0	25.71	0	13.43	15	22.39	9	13.43	4.47	7.11	22.73	10.03
Suffolk, L. I.	920	110,240	110.8	161,055	175.1	36	35	12	48	13	36.11	11	38.59	13	36.11	13	27.29	14	29.17	13	27.29	3.85	3.78	23.38	13.64
Richmond, S. I. (Richmond Borough, N. Y. C.).....	57	110,531	2,014.4	159,318	2,778.0	7	7	4	11	2	28.57	4	57.14	2	28.57	2	18.18	4	36.36	2	18.18	4.10	3.72	4.55	3.13
Total.....		2,840,295		4,261,089		151	145	200	352	35		48		34		42		57		38					

¹. These include banks from which interviews also were secured.
². These include banks from which worksheets also were secured.

evidence before its tabulation. The entries upon each line of the worksheets are a record of a single transaction. Therefore, the types of transactions which the worksheets disclose and their frequency are presented in the first instance in Table III. To be sure the answers secured in the interviews, like those in the Connecticut and Pennsylvania studies, disclose the happening and frequency of constituent aspects and not of transactions. But the methods by which, from the answers, transactions were constructed and their frequencies estimated are identical with those used in the Connecticut and Pennsylvania studies except insofar as the greater number and precision of the questions in this study eliminated the intermediate step of "interpretation." Hence without introductory summary it is permissible to report in Table III what the interviews indicate in respect of the happening and frequency of transactions in 1930. However, the types of the transactions of 1920 and their frequency as disclosed by the interviews are not reported in Table III. Answers were given in response to questions as to 1920 corresponding word for word with questions as to 1930. All of the banks in existence in 1920 at which interviews were had, with the few exceptions noted below, stated in effect that the types to which the transactions of 1920 conformed were the same as the types of the transactions of 1930 and made substantially the same estimates of frequency for 1920 as for 1930. In 18 banks the estimates of the percentage of secured and unsecured notes in 1920 differed from the estimates for 1930.

II

The number of banks from which worksheets and interviews were secured has been shown in Table I (*supra* page 1065). The total number of direct discount transactions recorded on the worksheets appears in Table II (*infra* page 1067). The number of direct discount transactions of 1930 terminating with liquidation out of the checking account, the types to which these transactions conform, and the frequencies of the types are detailed in Table III (facing page 1068). The totals of Table III (Columns 22-27) weighted, first, according to the number of banks in each county and, secondly, according to the population of each county, appear in Table IV (*infra* page 1072).

Since the patterns which predominate within a geographical unit which is the area from which the court is chosen—in this case the Second Judicial District—are the sequences which serve as standards of comparison, Table III is presented as a single sample of the transactions of that district and not as five samples, one for each of the counties. Nevertheless, in order to

TABLE II

	KINGS		QUEENS		RICHMOND		NASSAU		SUFFOLK		TOTAL	
	Number of Notes	Percentage of all Notes Tabulated	Number of Notes	Percentage of all Notes Tabulated	Number of Notes	Percentage of all Notes Tabulated	Number of Notes	Percentage of all Notes Tabulated	Number of Notes	Percentage of all Notes Tabulated	Number of Notes	Percentage of all Notes Tabulated
I Transactions within the group.												
Payments in full out of Checking Account.												
1. Prior to the Day of Maturity..	10	3.92	4	3.77	5	10.64	2	.87	3	1.51	24	2.84
2. On the Day of Maturity..	58	22.75	20	18.87	7	14.89	21	9.13	19	9.54	125	14.93
II Transactions not within the group.												
Payments in full not out of Checking Account.												
1. Prior to the Day of Maturity..					6	12.77	1	.43			7	.81
2. On the Day of Maturity..	2	.78	3	2.83	5	10.64	12	5.22	8	4.02	30	3.58
Payments in Part.	89	34.90	48	45.28	17	36.17	95	41.30	71	35.65	329	38.23
Renewals in Full..	57	22.35	16	15.09	1	2.13	45	19.57	54	27.14	173	20.78
III Transactions not classifiable as within the group or not within the group.												
Notes not taken care of (neither paid in full or in part nor renewed) on the Day of Maturity												
	39	15.29	15	14.15	6	12.77	54	23.48	44	22.11	158	18.88
Total Number of Notes Tabulated	255	.....	106	.....	47	.....	230	.....	199	.....	837	.....
Percentage of Total Number of Notes Tabulated in each County.....	30.46	.....	12.66	.....	5.62	.....	27.48	.....	23.78	.....	.....	.....
Total Number of Notes Tabulated												
Notes not Tabulated.	255	97.06	106	92.18	47	100	230	98.71	199	93.87	837	96.21
1. Not Classifiable—Rejected....												
			5	4.34			1	.43			6	.69
2. Not a Customer's Note.												
	5	1.90	2	1.74			2	.86	13	6.13	23	2.53
3. Receivable..												
	3	1.14	2	1.74							5	.57
Total Number of Notes on Worksheets.....	263	.....	115	.....	47	.....	233	.....	212	.....	870	.....

present the results of the investigation in detail the table reports the data by counties.

It will be noted that the number of transactions within the group in which liquidation is effected after the day of maturity does not appear in Table III. The worksheets did not provide for the recording of the final disposition of a note which had not been taken care of by payment in full, partial payment and renewal, or renewal in full by the close of business on the day of maturity. The frequency, within the group, of the 32 types of transactions in which liquidation is effected after the day of maturity was computed by arbitrarily assuming that the ratio of direct discounts liquidated out of the checking account after the day of maturity to all direct discounts liquidated out of the checking account was the same as the ratio of notes taken care of after the day of maturity to all notes. It is probable that the percentage of the notes taken care of after the day of maturity which are liquidated in full is much smaller than the percentage of the notes taken care of by the close of business on the day of maturity which are paid in full. Insofar as this is true the frequency for the types in which liquidation is effected after the day of maturity is too high.

In computing the frequency percentages appearing in Table III no attempt has been made to weight the answers of each bank according to the total number of its transactions. The number of transactions in each is unknown. It was pointed out in the third article of this series⁹ that the number cannot be approximated by reference to other standards such as volume of loans or total resources. Nor does there appear any reason for weighting them. The study, as in Connecticut and in Pennsylvania, offers no evidence that within areas of similar economic character the types of transactions which happen in large banks, which might be thought to have more transactions, differ from the types of transactions which happen in small banks or that the frequency of any one type is greater or less depending upon the size of the bank.

The class of transactions beginning with the discount of or loan upon the time note of a customer and conforming to the 40 types of Table III is unquestionably so large that any one of the 40 types which has a sufficient frequency may be a sequence.

The transactions of the 40 types of Table III may be, with appropriate qualifications in respect of amount, in institutional relationship with any sequential transaction whatever in the deposit currency field. In each of the transactions conforming to the 40 types in Table III the note was discounted for one who was already a customer, that is to say, the discount transaction followed another transaction in the deposit currency field. In view

⁹ 40 YALE L. J. 758.

of the discount which followed there is every reason to believe that the preceding transaction was itself a sequential transaction of any content whatever except in respect of amount. It is concluded from the answers to questions 6, 7, 9, 10, 12, 13, 15, 16, 18, and 19 and the entries in columns 9, 10, 12, 13, 18, 19, 23, and 24 of the worksheets that after the making of a debit entry, whether or not preceded by instructions or check, customers do not draw checks for more than the amount of the reduced credit balance. But there is no reason to believe that payment of the notes in any way affected the content, except as to amount, of the transactions which followed transactions of the 40 types. The answers to questions 6, 7, 9, 10, 12, 13, 15, 16, 18, and 19 and the entries in columns 9, 10, 12, 13, 18, 19, 23, and 24 of the worksheets support this conclusion also. It is judged, therefore, that the transactions which followed were sequential transactions within the deposit currency field having any content whatever except payment or transfer of a sum in excess of the credit balance remaining after the debit entry for the amount of the note.

III

The sample, i.e., the transactions of the banks surviving from 1920 displayed in Table III, is adequate. It consists of all the transactions during a period of three days at each of 35 banks, 24.14 per cent of the 145 banks surviving from 1920 and 22.73 per cent of the 154 banks in existence in 1920. It also consists of the transactions disclosed by the answers of 48 banks (including 34 of the 35 banks at which worksheets were obtained), 33.10 per cent of the surviving banks and 31.17 per cent of the banks in existence in 1920. The number of transactions in the sample, 837, is large enough so that from it may be derived significant percentages. Although the sample in Kings and Queens counties was smaller than in the remainder of the district it is believed that this deficiency does not prevent it from being representative. First, the number of banks and their distribution in these counties was such that an adequate scatter was secured. Secondly, and more important, the worksheets and interviews at the banks in these counties organized since 1920 at which studies were made show that the frequencies of the transactions occurring at these banks and at the surviving banks were so similar that the results for all the banks combined are substantially the same as the results for the surviving banks alone. This appears from a comparison of columns 2 and 5, 3 and 6, 8 and 11, and 9 and 12 of Table III.

The reasons for believing the data of the worksheets and the answers, with the exception of estimates of frequency, given in the interviews to be reliable have already been stated. The fre-

quency estimates are believed to be reliable approximations made by well-informed persons who were addressing themselves to the same and a familiar situation referred to in terms of familiar categories. The frequency percentages computed from these numerous estimates, 57, have the value which may be assigned to the result of integration of multiple opinions. Of some significance in judging their reliability is a comparison of the sum of the frequencies for the types of transactions including *debit-opening* and *debit-close* in Kings, Queens, and Richmond with the sum of the debit types in Philadelphia. This comparison shows a large group of such transactions in both urban areas. Again, a comparison of the frequencies of the same group in Suffolk and Nassau with the frequencies in Pennsylvania (excluding Philadelphia) and in Connecticut indicates that such transactions are relatively infrequent in these regions of small city, town, and country. The far smaller percentage of payments by check in Kings, Queens, and Richmond than in Philadelphia and the greater percentage of payments by instructions in the latter region do not indicate unreliability of the frequency percentages of Table III. It will be noted that as debits increase checks decrease faster than instructions. This observation is consistent with the independent judgment that the debit pattern is a development of the instruction pattern, and that the prototype survives at the expense of the third alternative, payment by check.¹⁰

It is believed that the types of the transactions of 1920 and their frequencies are substantially those appearing in Table III. With the exception noted below, it was stated in all of the interviews that there had been no change in practice since 1920 and that the answers for 1930 should be taken as true for 1920. The estimates of the percentage of secured and unsecured notes in 1920 and in 1930 differed. Since, however, some of the estimates are larger and others smaller, frequencies for the secured and unsecured types of transactions differ but little from the frequencies for the same types in 1930. The conclusion that the types of the transactions of 1920 and 1930 and their frequencies

10	Kings, Queens, and Richmond		Philadelphia	
	Banks in existence in 1920	Banks in existence in 1930 (including those in existence in 1920)		
Check Payments ...	17.68	14.83	57.05	
Instruction Payments	18.89	16.64	20.91	
Debit Payments	63.42	68.53	22.03	
	Nassau and Suffolk		Connecticut	Pennsylvania
	Banks in existence in 1920	Banks in existence in 1930 (including those in existence in 1920)		(excluding Philadelphia)
Check Payments	66.76	66.76	69.19	80.91
Instruction Payments.	26.62	26.62	18.79	13.90
Debit Payments	6.62	6.62	12.07	5.19

are substantially the same is supported by the following considerations. It is believed that the same economic activities have continued to characterize the several regions of the Second Judicial District during the decade. There has been no significant change in the ratio of banks to population.¹¹ And with the exception of four of the banks visited, those which were independent banks in 1920 have continued their existence as independents and those which were branches are branches of the same systems today. The four were either large independent banks or branches of a large system in boroughs of New York and at the time of the study were branches of large systems. Nothing is known of the history of the banks visited which indicates that changes in respect of the types and relative frequencies of direct discount transactions occurred between 1920 and 1930.

It is believed that the study justifies the following conclusions. (1) No transaction conforming to any one of the 40 types of Table IV, with the exception of types 5, 6, and 26, was an established pattern in the Second Judicial District in 1920. (2) Both the worksheets and the interviews disclose a distribution of frequencies which, whether unweighted or weighted, clearly indicates that type 26 was a sequence. (3) From the frequencies unweighted (Table IV, columns 2 and 3) or weighted according to the number of banks (Table IV, columns 7 and 8) it appears that type 6 was a sequence. But if its frequency be weighted according to population (Table IV, columns 9 and 10) this type appears not to have been a sequence. Weighting according to population seems to be no less crude a method for approximating the total number of transactions than weighting by number of banks or than accepting the unweighted frequencies of the sample. Common sense judgment leads to the same conclusions as columns 2 and 3, and 7 and 8 of Table IV. It is therefore believed that type 6 was a sequence. (4) The worksheet frequencies unweighted or weighted (Table IV, columns 2, 7, and 9) and the interview frequencies weighted according to population (Table IV, column 10) indicate that type 5 was not a sequence. The interview frequencies unweighted (Table IV, column 3) and weighted according to the number of banks (Table IV, column 9) indicate that it was. It seems impossible at present to justify the acceptance of either the frequencies of the worksheets or the frequencies of the interviews as a standard for judging the

County	Number of Persons per Bank	
	1920	1930
Kings	42,049	18,689
Queens	16,751	12,125
Nassau	3,603	4,523
Suffolk	3,062	3,355
Richmond	16,647	14,395

TABLE IV

	IN EXISTENCE IN 1920		IN EXISTENCE IN 1930 (including those in existence in 1920)			TOTALS OF BANKS IN EXISTENCE IN 1920 WEIGHTED						
	35 banks from which worksheets were secured		48 banks from which interviews were secured		43 banks from which worksheets were secured		57 banks from which interviews were secured		According to number of banks in each County		According to population in each County	
	Number of Transactions	Frequency %	1930 Frequency %	Number of Transactions	Frequency %	1930 Frequency %	Worksheets	Interviews	Worksheets	Interviews		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)			
1 Dis.Sec. Cr.Nc. Hold Ck.-on Db.-Ck.	1	.58	2.34	1	.54	2.55	.41	2.31	.02	2.53		
2 Dis. Cr.Nc. Hold Ck.-on. Db.-Ck.	10	5.83	2.10	11	5.99	2.29	5.05	2.34	0.05	2.08		
5 Dis.Sec. Cr.Nc. Ck.-on. Db.-Ck.	7	4.08	12.89	7	3.81	11.11	1.51	11.37	.98	8.86		
6 Dis. Cr.Nc. Ck.-on. Db.-Ck.	30	17.48	20.37	30	16.33	17.36	17.11	16.32	0.02	5.37		
9 Dis.Sec. Cr.-Nc. Hold Ins.-on. Db.-Ins.			1.28	1	.54	1.81	7.44	1.19	.....	.70
10 Dis. Cr.Nc. Hold Ins.-on. Db.-Ins.	11	6.41	3.89	14	7.62	4.33	4.47	3.60	10.20	3.73		
13 Dis. Sec. Cr.Nc. Ins.-on.Db.-Ins.	4	2.33	3.40	4	2.18	3.89	2.95	2.82	2.70	1.43		
14 Dis. Cr.-Nc. Ins.-on.Db.-Ins.	12	6.99	8.52	12	6.53	7.81	8.59	8.79	5.40	6.81		
17 Dis.Sec. Cr.Nc. Db.-op. ....			.69			.58		.91		2.13
18 Dis. Cr.Nc. Db.-op. ....			.83			.70		1.13		2.59
21 Dis.Sec. Cr.Nc. Db.-op. Nc.-Db. ....			.08					.06		.01
22 Dis. Cr.Nc. Db.-op. Nc.-Db. ....			.11			.09		.09		.02
25 Dis.Sec. Cr.Nc. Hold Db.-cl.	1	.58	2.01	1	.54	1.88	.90	2.54	.82	5.34		
26 Dis. Cr.Nc. Hold Db.-cl.	32	18.64	9.77	36	19.00	14.35	16.94	15.79	23.77	25.14		
29 Dis.Sec. Cr.Nc. Db.-cl.	2	1.17	2.01	2	1.09	1.71	.81	2.10	1.85	3.06		
30 Dis. Cr.Nc. Db.-cl.	2	1.17	5.09	2	1.09	5.51	1.09	6.25	.45	8.16		
33 Dis.Sec. Cr.Nc. Hold Db.-cl. Nc.-Db. ....			.04			.28		.03		.01
34 Dis. Cr.Nc. Hold Db.-cl. Nc.-Db.			1.38			3.81		1.65		3.21		
37 Dis.Sec. Cr.Nc. Db.-cl. Nc.-Db. ....			.08			.07		.06		.07
38 Dis. Cr.Nc. Db.-cl. Nc.-Db.	3	1.75	3.39	3	1.63	3.03	1.22	4.23	2.78	7.97		
41 Dis.Sec. Cr.Nc. Ck.-bef. Db.-Ck.												
45 Dis.Sec. Cr.Nc. Ins.-bef. Db.-Ins.	8	4.66	1.07	8	4.36	.97	3.45	.59	4.74	.60		
42 Dis. Cr.Nc. Ck.-bef. Db.-Ck.												
46 Dis. Cr.Nc. Ins.-bef. Db.-Ins.	13	7.57	2.28	16	8.71	2.11	7.16	1.91	7.05	1.31		
49, 53, } (Ck.-af.Db.-Ck..												
57, 61, } (Hold Ins.-af.Db.-Ins.												
65, 69, } Dis.Sec.Cr.Nc.		4.82	2.90		4.54	2.53	4.74	2.52	6.13	2.06		
73, 77, } (Db.-af. (Nc.-Db.												
50, 54, } (Ck.-af.Db.-Ck..												
58, 62, } (Hold Ins.-af.Db.-Ins.												
66, 70, } Dis. Cr.Nc.		15.36	8.60		14.34	7.42	15.33	7.67	11.40	5.31		
74, 78, } (Db.-af. (Nc.-Db.												
40 types of transactions corresponding to the 40 detailed above except that cash not credit is an aspect in each.	1	.58	4.85	1	.54	3.74	.83	3.44	.14	.75		

frequencies of the other.¹² Consequently no statement can be made in respect to transactions of type 5.

In order that this article may provide the material for a comparison of the Delano case the results of a wholly independent inquiry should be stated. The opening and operation of a checking account at a branch by a customer who already had a checking account at another branch of the same system was so infrequent that the transaction of opening the account at the second branch and all subsequent transactions were not sequential.¹³

¹² Though the worksheets provide a sufficient number of transactions to yield significant percentages, the representative character of the frequencies is not sufficiently established to negative the conclusions bottomed upon the equally adequate and reliable data of another study. Certainly it cannot be claimed for the interviews that the findings based upon them are entitled to greater weight than the findings from the worksheets. The table below compares the frequency of secured notes and of the three modes of payment disclosed by the worksheets with the estimates given in the interviews. Such a comparison obviously does not disclose a basis for choosing one as the standard rather than the other.

	Worksheets	Interviews
Percentage of Secured and Unsecured Notes		
Secured	19.69	33.11
Unsecured	80.31	66.89
Mode of Payment		
Secured Notes		
Check	46.67	65.40
Instructions	33.33	17.77
Debit	20.00	16.83
Unsecured Notes		
Check	41.94	45.03
Instructions	26.88	19.78
Debit	31.18	35.19

¹³ There are seven Manhattan banks which maintain many branches in Kings, Queens, and Richmond. At three of these it was stated that the opening of an account by the same customer at more than one of the branches of its system rarely, if ever, happened. The statements were made by responsible and informed executives in personal interviews and in letters.