

**The Depository Trust Company**

**1978 Annual Report**

The Depository Trust Company is a limited purpose trust company performing three major functions. First, it is a custodian for the securities of its Participants. Second, it provides an accounting system for the book-entry delivery and pledge of the Participant securities immobilized in its custody. Third, it acts as a vehicle for post-trade processing communications between its Participants and among Participants, the transfer agents of their securities and others. To effect these functions, DTC provides a variety of services, summarized below.

<b>Deposits</b>	DTC accepts deposits of equity and debt certificates in approximately 13,000 of the most widely traded securities issues, from or for its Participants, at its central facility and at cooperating Depository Facilities elsewhere in the United States.
<b>Custody</b>	DTC holds deposited securities in custody, recording each Participant's position and changes therein and providing each Participant with a daily statement of activity and a monthly statement of position.
<b>Deliveries and Settlement</b>	DTC makes book-entry deliveries of deposited securities between Participants, and among Participants, clearing corporations and other securities depositories acting for their users, and also receives and makes payment for securities delivered by book-entry, including underwriting distributions.
<b>Pledges</b>	DTC effects pledges of Participants' securities by book-entry to secure collateral loans from Pledges to Participants.
<b>Options</b>	DTC segregates those Participants' securities that underlie options traded on various exchanges and settled through The Options Clearing Corporation.
<b>Voluntary Offerings</b>	DTC's voluntary offerings services allow Participants to convert, exchange or tender qualifying securities on deposit with DTC without withdrawing the securities from the depository.
<b>Urgent Withdrawals</b>	DTC provides for the withdrawal by Participants of urgently needed certificates on demand (CODs) upon approximately three hours notice, reducing the Participants' positions accordingly.
<b>Withdrawals By Transfer</b>	DTC arranges for the transfer and delivery of securities to Participants in any registered name the Participants may designate, reducing the Participants' positions accordingly.
<b>Confirmations and Acknowledgments</b>	DTC enables users to confirm securities trades and acknowledge such confirmations, whether or not the transactions are in DTC-eligible securities.
<b>Dividend and Interest Payments</b>	DTC receives and passes on to Participants the cash and stock dividends and interest payments related to securities held in its custody.
<b>Voting Rights</b>	DTC provides for the voting of equity securities it holds in custody by the assignment of voting rights to Participants in accordance with their positions.

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## Highlights

At the End of the Year:	1978	1977
Participants	305	265
Broker-Dealers	238	204
Banks	61	53
Clearing Agencies	6	8
Pledgees	91	85
Depository Facilities	34	32
Eligible Security Issues	13,028	10,666
	(in billions)	
Value of Securities on Deposit	\$196	\$139
Bank Deposits	\$128	\$ 81
Broker-Dealer Deposits	\$ 68	\$ 58
Number of Shares on Deposit	6.9	5.0
Bank Deposits	3.3	2.1
Broker-Dealer Deposits	3.6	2.9
Principal Amount of Debt Securities on Deposit	\$ 25.8	\$ 15.1
Bank Deposits	\$ 18.9	\$ 10.3
Broker-Dealer Deposits	\$ 6.9	\$ 4.8
Value of Securities Pledged for Collateral Loans	\$ 8.2	\$ 8.3
Value of FAST Balance Certificates at Transfer Agents	\$ 52.2	\$ 28.0
<b>Total for the Year:</b>		(in billions)
Market Value of Book-Entry Deliveries	\$500	\$357
Cash Dividend and Interest Payments to Users	\$ 8.7	\$ 5.5

## Board of Directors



**Thomas A. Bigelow**  
Executive Vice President-  
Operations, Wells Fargo  
Bank, National Association



**William S. Edgerly**  
Chairman, President and  
Chief Executive Officer,  
State Street Boston  
Corporation, State Street  
Bank and Trust Company



**Carl W. Klemme**  
Executive Vice President,  
Morgan Guaranty Trust  
Company of New York



**William T. Dentzer, Jr.**  
Chairman and Chief  
Executive Officer,  
The Depository Trust  
Company



**Robert C. Hall**  
Executive Vice President,  
New York Stock  
Exchange, Inc.



**Benjamin L. Lubin**  
Managing Partner, Bruns,  
Nordeman, Rea & Co.



**Charles C. Smith**  
Executive Vice President,  
Administration,  
Bankers Trust Company



**Jon A. Bulkley**  
President and Co-Chief  
Executive Officer,  
Moseley, Hallgarten,  
Estabrook & Weeden Inc.,  
and President, Securities  
Settlement Corporation



**C. Richard Justice**  
Senior Vice President,  
National Association of  
Securities Dealers, Inc.



**John T. Roche**  
Executive Vice President  
and Director, Kidder,  
Peabody & Co. Incorporated



**John E. Stoddard**  
Executive Vice President  
and Chief Financial Officer,  
Blyth Eastman Dillon &  
Co. Incorporated



**C.W. Carson, Jr.**  
Vice Chairman and  
Director, Chemical  
New York Corporation,  
Chemical Bank



**Raymond J. Kalinows**  
Executive Vice President,  
Treasurer & Director,  
A.G. Edwards & Sons, Inc.



**Allan L. Sher**  
Executive Vice Pres-  
ident, Finance  
& Administration,  
Merrill Lynch, Pierc  
Fenner & Smith  
Incorporated



**Joseph A. Vitanza**  
Senior Executive Vice  
President, Drexel Burnham  
Lambert Incorporated

Retiring from the Board of Directors in March, 1979 were: **Dwight L. Allison, Jr.**, President and Chief Executive Officer of The Boston Company, Inc. and Chairman of the Board of Boston Safe Deposit and Trust Company; **James C. Harris**, Vice Chairman of the Board and Chairman of the Trust Committee of Northwestern National Bank of Minneapolis; **Ross B. Kenzie**, Executive Vice President of Merrill Lynch, Pierce, Fenner & Smith Incorporated and Director of Merrill Lynch & Co., Inc.; **Joseph A. Rice**, President of Irving Trust Company and President of Charter New York Corporation; and **Robert B. White**, Executive Vice President of Citibank, N.A.

**Chairman's Message**

The Depository Trust Company's expectations for substantial growth in 1978 were more than realized. Book-entry securities deliveries through its accounting system rose to \$500 billion for the year, up 40% from the 1977 figure. Total market and face value of equity and debt securities in DTC's custody increased 41% to \$196 billion at yearend, while the number of shares on deposit rose 38% to 6.9 billion. Other indicators of depository activity showed similar large increases.

Most of this growth was expected; some of it was not.

The unexpected source of depository activity was the year's record stock market trading volume. At the New York Stock Exchange, annual volume soared to more than 7.2 billion shares—a 33% increase over the previous record of 5.4 billion shares traded in 1976. The depository's capacity was vividly illustrated by its ability to settle the August 3 all-time daily high of 66.4 million shares traded on the NYSE. DTC's fundamental contribution, however, was to the industry's ability to process continued high trading volume in various markets, week after week, with a minimum of problems.

The anticipated portion of depository growth was largely related to increased use of DTC by banks, for both their trust and custody accounts. The depository system offers institutions a means to reduce labor-intensive clearance and settlement costs while enjoying better service. Attracted by these possibilities, institutions across the country with significant securities activity are continuing to adapt to a depository environment. This process, which is reflected in DTC's growth, will take a few more years to complete.

Eight banks from 6 states joined Depository Trust during 1978, bringing the total number of Participant banks to 61, from 24 states and the District of Columbia. All of these banks are direct Participants with DTC accounts in their own names. Some of them also process the activity of correspondent banks through their DTC accounts, providing such correspondents with indirect access to depository services. These

indirect bank users now number more than twice the total of direct bank Participants. We expect this ratio to increase further as direct bank Participants share their DTC-related economies of scale with more correspondent banks, as well as with other institutional customers.

A further source of DTC's 1978 growth related to the increase in the number of eligible over-the-counter issues, coupled with the initiation of service to 46 broker-dealer participants in the National Securities Clearing Corporation. These developments raised the number of OTC issues eligible for DTC services to 6,843 at yearend. At the same time, the 2,400 issues that were added more than doubled the number of transfer agents across the country with which the depository deals. About 13,000 security issues are now DTC-eligible.

The pages that follow describe Depository Trust's services and activities during the past year. They also show how the depository has sought to meet its responsibilities, both as an agency responsive to an increasing number of users and as a key part of the growing national clearance and settlement system. Finally, we hope that these pages convey DTC's strong commitment to efficiency, accuracy, security and speed of securities processing—the objectives which caused Depository Trust to be created and which account for its growth today.



William T. Dentzer, Jr.  
Chairman and Chief Executive Officer

## History, Ownership and Policies

The Depository Trust Company is owned and controlled by its Participants or their representatives; its purpose is to provide efficient, safe and accurate post-trade processing for their securities transactions.

DTC was created in early 1973 to acquire the business of the Central Certificate Service (CCS) of the New York Stock Exchange, a securities depository established by the NYSE in 1968 to serve its member firms. The conversion of CCS into The Depository Trust Company and the plan for the evolution of DTC as a user-controlled entity were developed by the Banking and Securities Industry Committee in 1970-72.

The initial sale of DTC stock by the NYSE to DTC bank Participants and other self-regulatory organizations representing broker-dealer Participants occurred on October 31, 1975, after various state laws restricting depository ownership had been amended. The stockholder base was broadened in October 1976, when the NYSE acted to give broker-dealers the right to own DTC stock directly. By Spring of 1977, the number of stockholder Participants or their representatives stood at 50.

The procedures for the governance of Depository Trust are carefully framed to reflect the need for objectivity in serving diverse users in the financial community.



Paula Figliolia, Senior Billing Clerk (left), Ann Mogg, Billing Clerk, and José Colón, Billing Accountant, all of DTC, examine the computerized calculation of the record \$4.7 million refund issued to DTC users for 1978.

The right to purchase capital stock of the depository is based on a formula which takes into account each Participant's use of the depository during the preceding calendar year. The calculation of use is based equally on fees paid to the depository during that year and the market value of long securities positions in DTC on the last business day of each month of the year. The purchase price of the DTC stock is based on its book value at yearend.

Each year, the amount of stock each Participant is entitled to purchase is recalculated to reflect annual variations in usage. Participants may purchase any, all, or none of the stock to which they are entitled, as they see fit.

The annual stock reallocation occurs prior to the annual stockholders' meeting so that stockholders will be able to vote newly acquired shares in the election of the Board of Directors, which takes place at that meeting. Elections are conducted under a system of cumulative voting which ensures that no group controlling more than 50% of the stock can elect all Directors. Representation on the Board is thereby made available to users from various sectors of the financial community, in proportion to their use of the depository.

At the conclusion of the annual reallocation of DTC stock entitlements in March 1979, elections to purchase entitlements increased the number of stockholders to 55, comprising 28 broker-dealers, 22 banks and 5 self-regulatory organizations and clearing agencies.

The 22 bank Participants currently own 32% of DTC stock. Ten of the banks (ownership interest 28%) are members of the New York Clearing House Association. Eleven of the remaining 12 banks (ownership interest 4%) are headquartered outside New York City. Total entitlements for banks located outside New York City increased to 10.4% of DTC stock from 8% a year earlier.

The 28 broker-dealer stockholder Participants currently own 11.4% of DTC stock.

The ownership interests of the self-regulatory organizations, which were required to sell stock to accommodate Participant elections to purchase, declined to 44.3% for the New York Stock Exchange, 6.0% for the American Stock Exchange, and

6.0% for the National Association of Securities Dealers.

The full list of current DTC stockholders other than the NYSE, ASE and NASD, in order of their holdings, is as follows:

Citibank, N.A.  
Merrill Lynch & Co., Inc.  
The Chase Manhattan Bank, N.A.  
Bankers Trust Company  
Manufacturers Hanover Trust Company  
The Bank of New York  
Morgan Guaranty Trust Company of New York  
Irving Trust Company  
Marine Midland Bank—New York  
Wells Fargo Bank, National Association  
United States Trust Company of New York  
Goldman, Sachs & Co.  
Northwestern National Bank of Minneapolis  
Chemical Bank  
Salomon Brothers  
State Street Bank and Trust Company  
A.G. Edwards & Sons, Inc.  
The Citizens and Southern National Bank  
Morgan Stanley & Co. Incorporated  
First & Merchants National Bank  
Lewco Securities Corp.  
Donaldson, Lufkin & Jenrette Securities Corporation  
Stock Clearing Corporation of Philadelphia  
Weeden & Co.  
The First Boston Corporation  
Edward A. Viner & Co., Inc.  
The Connecticut Bank and Trust Company  
Shawmut Bank of Boston, N.A.

Arnhold & S. Bleichroeder, Inc.  
The Equitable Trust Company  
Hartford National Bank and Trust Company  
F. Eberstadt & Co., Inc.  
Wood Gundy Incorporated  
H.N. Whitney, Goadby & Co.  
Oscar Gruss & Son Incorporated  
Bradford Trust Company  
Alex. Brown & Sons  
First Wall Street Settlement Corporation  
First Jersey National Bank  
Kingsley, Boye & Southwood, Inc.  
Carl H. Pforzheimer & Co.  
La Branche & Co.  
Boettcher & Company  
Prescott, Ball & Turben  
Stillman, Maynard & Co.  
Fagenson & Co., Inc.  
J.F. Nick & Co.  
The First National Bank of Atlanta  
Stock Clearing Corporation  
Mayer & Schweitzer, Inc.  
Mitchel, Schreiber, Watts & Co., Inc.  
Carl Marks & Co., Inc.

It is the depository's policy not to pay dividends to stockholders. This policy is based on the belief that distribution of depository ownership should not be viewed as an investment vehicle, but rather as a means by which diverse users may encourage DTC's responsiveness to their needs through the exercise of their voting rights.

It is a further policy of DTC to limit profits and return to users, whether or not they are stockholders, such revenues as the Board of Directors believes exceed the funds required for the depository's operation. Pursuant to this policy, DTC refunded \$4.7 million to users in 1978.

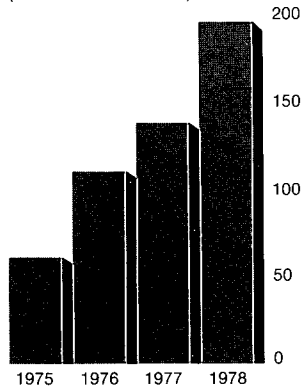
The Depository Trust Company is regulated by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended. As a member of the Federal Reserve System and a New York State limited purpose trust company, it is also regulated by the Board of Governors of the Federal Reserve System and the New York State Banking Department.



Donna G. Reilly, Assistant Secretary of DTC.

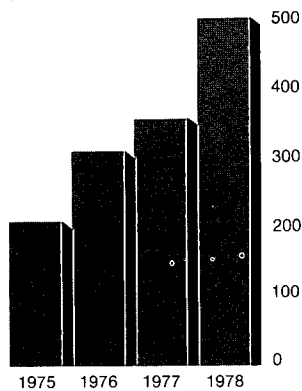
## Growth

**Total Securities on Deposit**  
(In Billions of Dollars)\*



\*Yearend figures

**Dollar Value of Deliveries**  
(In Billions of Dollars)\*



\*Yearend figures

By virtually every quantitative criterion, 1978 was a record year for Depository Trust.

Bank participation, in particular, registered unprecedented growth. The addition of 8 banks from six states brought the number of direct bank Participants to 61—21 headquartered in New York State and 40 in 23 other states and the District of Columbia. At the same time, many other banks became indirect users of DTC through correspondent relationships with direct bank Participants. Accordingly, by yearend 1978, DTC's securities on deposit from banks had grown to include 3.3 billion shares, with a total (equity plus debt) value of over \$128 billion, up 57% and 58% from 2.1 billion and \$81 billion, respectively, a year earlier. Twenty-two individual bank Participants each had more than \$1 billion in securities on deposit. Direct and indirect Participants included 28 of the top 50 U.S. banks, and 53 of the top 100, measured by trust assets under management as reported by the Federal Reserve. Another 14 of the top 100 participated in four other securities depositories.

DTC's broker-dealer participation also rose to a record level, reversing the merger and liquidation-engendered decline of the prior period. The number of direct broker-dealer Participants increased to 238 in 1978 (including NSCC "sponsored accounts")

from 204 in 1977. These firms are augmented by approximately 200 more that use DTC through the accounts of correspondent broker-dealer Participants. Broker-dealer securities on deposit included a record 3.6 billion shares, with a total (equity plus debt) value of \$68 billion, up 24% and 17%, respectively, from the 2.9 billion and \$58 billion of yearend 1977. One-hundred-forty-three of the direct and NSCC-sponsored broker-dealer Participants had their principal bases of operations in New York State; 95 were headquartered in 23 other states and the District of Columbia.

Other DTC activities also participated in the year's surge of growth.

■ During 1978, DTC processed over 34 million individual transactions in connection with its primary services—deposits, deliveries, pledges and withdrawals—for an average of 138,000 transactions per business day in these services. This record volume represented a 17% jump from the prior high of 29 million for 1977, partly reflecting the tremendous surge of trading volume of the middle two quarters of 1978. More than any purely statistical yardstick, DTC's ability to process this unusual—and unexpected—flow of volume for a sustained period of more than six months was the most gratifying achievement of an outstanding year.



Anna Kucinskis (left), Assistant Vice President, and Neil T. Maher, Vice President, both of Irving Trust Company, with George Monk, Senior Securities Officer, Eileen Regan, Participant Services Representative, and Louis Bonacio (seated), senior clerk, all of DTC.

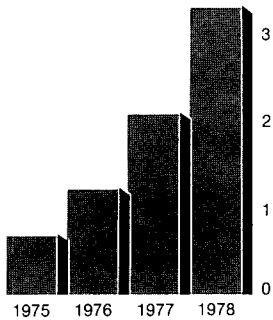


■ Dividends and interest paid to DTC on securities held for Participants rose by more than 58% in 1978, to \$8.7 billion from \$5.5 billion for 1977.

■ The number of banks taking part in DTC's collateral loan program grew to 91 from 85. This program permits broker-dealers to collateralize borrowings from banks by means of the book-entry pledging to the lender's account of securities held in the borrower's account. At yearend 1978, the value of outstanding pledges exceeded \$8 billion; 24 individual banks each had over \$100 million in securities pledged to them on DTC's books.

■ The network of Depository Facilities maintained by cooperating banks increased to 34 in 24 major U.S. cities from 32 in 22 cities a year earlier. Depository Facilities enable banks, broker-dealers and other financial institutions to deposit securities locally for same-day credit in DTC's book-entry system, rendering the deposits immediately usable for such purposes as deliveries and collateral pledges.

**Securities on Deposit from Banks**  
(In Billions of Shares)\*



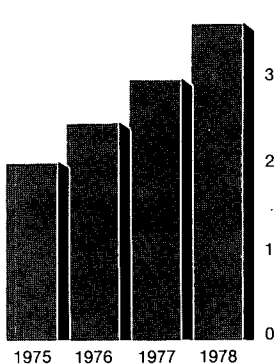
\*Yearend figures

## Developments

Two events shaped much of Depository Trust's activity in 1978. One was the unexpected surge of record trading volume that began early in the second quarter and continued well into the fourth, far exceeding levels that overwhelmed the securities industry in 1968-1969. The second, in the latter part of the year, was DTC's addition of 2,400 over-the-counter issues to its list of eligible securities in connection with the consolidation of the National Securities Clearing Corporation, described elsewhere in this report.

Against this background of record-breaking activity, the depository was able to launch, expand and improve a number of services to users, while the flow of bank deposits into DTC continued to accelerate. The most important of these various developments are described in the paragraphs that follow.

**Securities on Deposit from Broker-Dealers**  
(In Billions of Shares)\*



\*Yearend figures

## Eligible Issues

The number of securities issues eligible for DTC services rose to 13,028 by the end of 1978, up 22% from the 10,666 of yearend 1977. The bulk of the expansion was related to the consolidation of operating divisions of the National Securities Clearing Corporation, for whose members DTC had agreed to greatly expand its eligible list of over-the-counter issues. Beginning in August, approximately 2,400 OTC issues were made eligible for DTC services, bringing the total number of depository-eligible over-the-counter equity issues to 5,695 at yearend 1978.

Other portions of the DTC-eligible securities list grew slightly in 1978. Depository-eligible New York and American Stock Exchange common and preferred issues increased to 3,216 from 3,199, while eligible listed and unlisted debt securities rose to 3,399 from 3,039, and eligible U.S. Treasury and Federal Agency issues, to 371 from 284. At the same time, the number of issues represented by eligible American Depository Receipts (ADRs) declined to 347 from 362.



Officers of The Riggs National Bank of Washington, D.C., review DTC's eligible securities list. They are, left to right, Harriette T. McGinnis, Trust Officer; Gail M. Hartmann, Vice President and Trust Operations Officer, and Marjorie B. Tilch, Trust Operations Officer.

## Deposit of Pension Fund Assets

DTC bank Participants continued to deposit public and private pension fund assets into their DTC accounts throughout 1978.

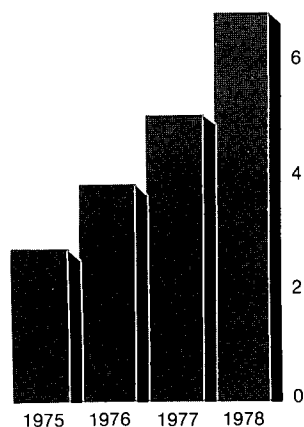
Among the largest depositors were The Chase Manhattan Bank, N.A. and State Street Bank and Trust Company. Chase placed in DTC corporate pension fund assets of Agway Incorporated, American Express Company, Celanese Corporation, Standard Oil Company (Ohio), and Washington Gas Light Company. Chase also substantially increased its deposit of Rockwell International's pension fund assets. State Street deposited pension fund assets of ASARCO Incorporated and Emhart Corporation, among others. Several other banks deposited portions of the Bell System Trust, thereby increasing Bell's already large DTC deposits.

The continued movement among pension fund sponsors to consolidate their assets in master trust arrangements has compounded the benefits of depository usage

for master trust custodians. Pension funds seeking a master trust relationship often have their assets at several banks, sometimes in a variety of geographic locations. The master trust bank is responsible for receiving the fund's assets, which means that it must reconcile, control, retransfer, and file very large numbers of certificates. When these tasks are performed in a book-entry environment, securities can be received, and all positions reconciled, without the need for cumbersome and error-prone manual operations. A growing number of DTC bank Participants are availing themselves of this benefit and the trend is expected to accelerate during the period ahead.

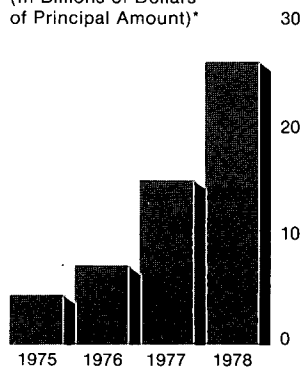
During 1978, additional public authorities authorized their custodians to place pension fund accounts in DTC; one of the largest deposits represented the Baltimore Employees' Retirement System, through its custodian bank, Mercantile Safe-Deposit and Trust Company.

### Equity Securities on Deposit (In Billions of Shares)\*



\*Yearend figures

### Debt Securities on Deposit (In Billions of Dollars of Principal Amount)\*



\*Yearend figures



Jeffrey A. Jennings, Manager—Pension Investment of McGraw-Hill, Inc. (left), Edward H. Ahern, Second Vice President of The Chase Manhattan Bank, N.A., and John M. Lanning, Jr., Director, Participant Services, DTC, working out the final details under which McGraw-Hill's internally managed pension account will join the Institutional Delivery (ID) system using Chase as agent bank.

## Deposit of Investment Company Assets

The flow of mutual fund assets into DTC through the accounts of custodian banks accelerated sharply through 1978 and into the first quarter of 1979. By the end of that period, 55 mutual funds had securities valued at \$8.9 billion on deposit at DTC, almost double the \$4.5 billion from 29 funds as of March 31, 1978.

The largest single deposit—and the second largest single-day deposit from any source in DTC's history—was \$1.1 billion from Massachusetts Investors Trust through its agent bank, State Street Bank and Trust Co., in June. State Street was also the agent bank for the next four largest mutual fund deposits of the March 31, 1978-March 31, 1979 period: \$887 million from T. Rowe Price Growth Stock Fund, Inc.; \$544 million from Wellington Fund, Inc.; \$500 million from Windsor Fund, Inc.; and \$400 million from Rowe Price New Horizons Fund, Inc. Other sizable deposits involved The Bank of New York, New England Merchants National Bank, Northwestern National Bank of Minneapolis, and The Riggs National Bank of Washington, D.C., acting as custodians for a number of mutual funds.

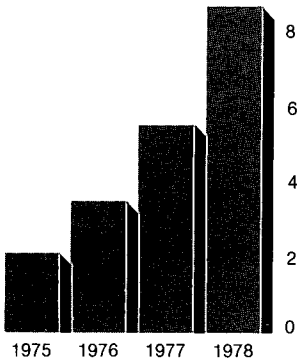
The surge of deposits was particularly encouraging against the background of a pending Securities and Exchange Commission rule that had caused the growth of mutual fund participation in DTC to slow to a trickle during the March 1977-March 1978 period. During 1977, the SEC twice published for industry comment a proposed Rule 17f-4 governing the use of depositories by investment companies. In the face of vocal industry dissatisfaction, the SEC revised each version in turn. Throughout most of 1978, the imminence of a third version overhung the industry, causing many investment company managers to adopt a "wait-and-see" posture toward depository usage.

An indication of SEC responsiveness to industry comment came from an address by Harold Williams, Chairman of the SEC, at the annual meeting of the Investment Company Institute. Mr. Williams indicated that the SEC's future regulation of the mutual fund industry would accord greater latitude to funds' Boards of Directors in making certain types of business decisions, rather than the SEC itself prescribing "nuts and bolts" rules.

During the fourth quarter of the year, the SEC finally announced the adoption of Rule 17f-4 in its third and final form, dealing with investment company use of book-entry systems at depositories and Federal Reserve Banks, to become effective December 31, 1978. The new rule requires that a fund's decision regarding depository usage be made by that fund's Board of Directors, and that if the decision is made to deposit the fund's assets in a depository, the Board should review its decision annually. The rule also sets forth certain essential elements of the "arrangement" between a mutual fund, its custodian, if any, and a depository.

DTC believes that the resolution of the Rule 17f-4 uncertainties will have a favorable effect on investment company usage of DTC through agent banks during the year ahead.

**Cash Dividends and Interest Paid**  
(In Billions of Dollars)\*



\*Yearend figures



G. Duncan Fraser, Jr., Treasurer of Massachusetts Financial Services Company (left), Dennis J. Dirks, Assistant Vice President at DTC, Robert Blucke, Senior Vice President and Jack Robinson, Vice President, both from State Street Bank and Trust Company.

## Deposit of Insurance Company Assets

On April 1, 1978, Maryland became the second state to approve DTC as a custodian of insurance company assets. New York State had announced its approval in February 1977.

The major obstacle to depository custody of insurance company-owned securities is the framework of insurance statutes and regulations in the various states. Many states permit depository usage at the discretion of the state insurance commissioners, but have not yet established the necessary guidelines for supervisory review. In a number of other states the problem is statutory—frequently in the form of a requirement that the assets be physically domiciled within the state, or that they be kept in the form of physical certificates wherever domiciled.



Frank C. G. Williams (left), Vice President and Assistant Treasurer of The Prudential Insurance Company of America, Brian V. Carty, Vice President of Manufacturers Hanover Trust Company, and Nishan Vartabedian, Assistant Vice President of DTC, touring the glass enclosed maximum security area where DTC's jumbo certificates are maintained.

There are about 4,700 insurance companies in the United States, collectively holding perhaps \$200 billion of DTC-eligible securities. But the value of their securities currently on deposit with DTC is only about \$6 billion, or 3% of the total, while the number of insurers known to be using some of DTC's services indirectly, through their agent banks, is 94, or just 2%.

Recognizing that state barriers have made the insurance sector of the financial industry the slowest to adapt to depositories, the National Association of Insurance Commissioners, acting through a special Task Force and a new Advisory Committee, has organized a campaign to be conducted during 1979. The Task Force plans to contact the insurance regulators in every jurisdiction that does not yet authorize depository usage to encourage a speedier resolution of the problem. The Task Force is also drafting guidelines for regulatory examiners on book-entry usage.

Despite these obstacles, some insurers have availed themselves of DTC services that do not contravene current state restraints. The depository's Institutional Delivery (*ID*) system expedites the post-trade settlement process through its prompt distribution of broker confirmations (to institutions and/or their agent banks) and acknowledgments (by institutions through DTC to brokers and custodians). This paves the way for easier resolution of errors and DKs (Don't Know rejected trades) and automatic settlement on settlement date. Drawn by prospects of reduced processing costs, an increasing number of insurance companies have begun to use the system in varying degree. To date, the largest number—about 40—have limited their participation to the receipt of "confirms only," but some of the largest companies—including Aetna, Equitable Life, Massachusetts Mutual and Prudential—are using the system fully. In early 1979, Prudential took the final step of placing large portions of its securities in DTC custody through the account of its agent bank.

## Institutional Delivery (ID) System

DTC's Institutional Delivery (ID) system more than doubled its size in 1978, measured by several key standards. Average monthly volume of confirmations processed through the system rose to 81,000 for the fourth quarter, up 45% from 56,000 for the comparable 1977 period. At the same time, the number of fully participating institutions increased 123%—to 125 from 56—while the number of confirms-only participants jumped 287%, to 174 from 45. Fully participating institutions are those that use ID to receive confirms from brokers, acknowledge them, and receive and deliver securities by book-entry. Confirms-only participants are those that use the system only to receive confirms; this is usually the initial stage of ID system participation.

ID was developed by DTC to reduce errors, costs and processing effort for all parties involved in a securities trade. User institutions do not have to join the depository; only the agent bank need be a Participant.

Briefly stated, the system works as follows:

- (1) The broker-dealer furnishes DTC with confirmation data, which DTC passes on to the broker-dealer's institutional customer in a standard format on the morning following trade date. Errors can thus be identified and resolved while the traders' recollections are still fresh. The ID confirm is considered a legal confirmation by both the broker-dealer and the institution.
- (2) If the institution agrees to the trade, it may affirm it within three days by forwarding an acknowledgment to DTC directly or through an agent bank. Unacknowledged confirmations prevent automatic trade settlement through DTC.
- (3) DTC forwards receive and deliver instructions for agreed trades to the agent bank and broker-dealer. The broker-dealer also receives a list of unacknowledged trade confirmations.

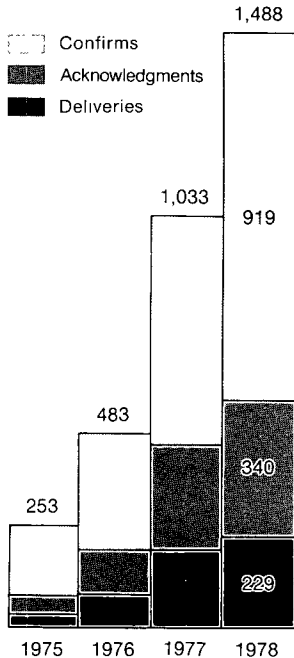
- (4) On the morning of settlement date, assuming that the deliverer has sufficient securities available in its DTC account, the depository automatically completes the delivery and receipt of securities by book-entry and processes the related money settlement.

This system greatly simplifies and automates settlement, reduces fails, and eliminates DK (Don't Know) rejected trade deliveries, holdover items, delivery tickets, credit lists, envelopes and certificate movement.

The record growth of the past year seems certain to continue. Despite the 1978 gains, the number of institutions currently participating is still relatively modest in comparison with the number of potential users—banks, insurance companies, mutual funds and investment advisors, to name four of the major categories. Moreover, each increase in participation adds to the value of the system for all Participants by increasing the universe of contra parties capable of receiving and delivering via ID's automated book-entry procedures. Thus, the net effect of the 1978 growth is to increase the appeal of ID to those institutions that are not yet participating.

The following 1978 developments are especially noteworthy.

**Institutional Delivery (ID) System Use**  
(In Thousands of Items)\*



\*Yearend figures



John O'Grady, Director of Participant Services, of DTC, Judith Luke, Administrative Assistant, and Donald J. Burns, Vice President, both of Bankers Trust Company, and Robert Beck, Director of Participant Services, of DTC.

■ An *ID* delivery compression option went into operation at the end of the first quarter. This feature reduces processing and charges to *ID* broker-dealers and agent bank Participants. When an institution gives a broker-dealer a large order in a security, the broker-dealer may execute that order in two or more trades and confirm the order executions as they occur—one at a time. Prior to compression, the institution acknowledged each confirmation to DTC, and DTC generated a separate deliver/receive instruction for each acknowledgment. Subsequently, a separate delivery would occur for each such instruction. Thus a single order executed in two trades on a given day resulted in two deliveries on settlement day. The new delivery compression service is optional. It enables an institution to make a single acknowledgment of two or more trade confirmations received from a broker-dealer on the same date. DTC can then generate a single delivery instruction instead of multiple instructions.

■ A magnetic tape-to-tape interface was installed between DTC's *ID* system and the Institutional Clearing Program (ICP) of Pacific Clearing Corporation. The new link enables DTC Participants to report their trades with ICP-member Pacific Coast banks directly to *ID* for one daily transmission to ICP, rather than each broker-dealer transmitting its own confirmation separately

(see Interfaces in a National Clearance and Settlement System, elsewhere in this report).

■ During the fourth quarter, DTC began hosting a series of seminars especially designed to present the advantages of the *ID* system to Investment Managers. Bank trust departments have been using *ID* for their own trades in increasing numbers over the past two years, attracted by the speed with which they receive confirmations and detailed receive and deliver instructions, as well as the efficiency of the automated book-entry settlement. More recently, a number of Investment Managers have also begun to use the *ID* system for their "directed" accounts. In this type of transaction, the Manager places a trade with a broker-dealer on behalf of the institution, while the custodian bank maintains control of the securities, either in its DTC account or physically in its own vault. To settle the transaction promptly, the broker-dealer, Investment Manager and custodian must all agree on the specifics of the trade in a timely manner. Delays are especially common in "directed" trades, occurring when there is a discrepancy in the details of the trade or when one of the three parties fails to receive confirmation prior to settlement. The success that Investment Managers, broker-dealers and custodian banks have enjoyed in eliminating these problems through the use of the *ID* system prompted DTC to undertake these seminars.

■ In the first quarter of 1979, DTC completed programming which will allow it to transmit certain key *ID* system activity reports to Participants with Participant Terminal System (*PTS*) terminals (see Participant Terminal System [*PTS*] elsewhere in this report). This service was designed to facilitate faster and more efficient reporting to all Participants, but is expected to be of special interest to those located outside New York City.



Berit Jacobson, Participant Services Representative of DTC, David Kelly, Executive Vice President of Execution Services Inc., and Daniel T. Glum, Assistant Secretary of Morgan Guaranty Trust Company.

## Fast Automated Securities Transfer (*FAST*)

DTC's *FAST* program continued its steady growth throughout 1978. At yearend, 36 transfer agents held balance certificates valued at \$52.2 billion in 2,435 issues. The comparable prior-year figures were 29 transfer agents holding 2,055 issues valued at \$28 billion.

Under the *FAST* program, initiated on a pilot basis with Morgan Guaranty Trust Company of New York in January 1975, DTC leaves securities with transfer agents in the form of balance certificates registered in the depository's nominee name—Cede & Co. The balance certificates are adjusted daily for DTC deposit and withdrawal activity.

There are two parts to the *FAST* program. The certificates on demand (COD) portion is designed for urgent withdrawals on a same-day or overnight basis. Transfer agents who subscribe to the COD part of *FAST* must make the certificates requested by Participants available to DTC overnight, and twice each business day on two hours notice. This part of the program makes it possible for DTC to eliminate its vault supply of Cede & Co. certificates in eligible issues.



Robert L. Hunt (seated), Executive Vice President at Security Pacific National Bank, signs the agreement linking the bank to DTC's Fast Automated Securities Transfer (*FAST*) program. Standing are Robert H. Smith, Senior Vice President (right) and James B. Black, Vice President, both of Security Pacific's Fiduciary Service Group.

The withdrawal-by-transfer (WT) portion of the program is designed for routine withdrawals; agents can fulfill Participant requests within normal transfer turnaround time, usually three business days. Transfer agents may participate in both parts of *FAST* or in WTs only.

*FAST* confers a number of benefits on all parties involved in the issuance and transfer of securities. Transportation, handling and insurance costs are substantially reduced by the elimination of regular shipments of large value certificates between transfer agents and DTC. The cost of researching dividend claims is also reduced, and proxy voting made easier, by *FAST* CODs, since Cede & Co. certificates no longer must be issued and circulated throughout the financial industry. In addition, corporations and transfer agents enjoy reduced certificate issuance costs by the elimination of hundreds, and sometimes thousands, of certificates for each issue annually. Since the inception of the program, for example, almost 750,000 Cede & Co. certificates have been cancelled by agents as issues were converted to *FAST* and into balance certificates. The issuance of over 1.1 million Cede & Co. certificates which would have been required to replenish DTC's vault inventory was avoided.

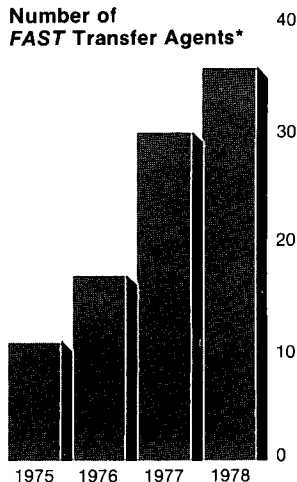
*FAST*'s 1978 growth was highlighted by the addition of several transfer agents in the second and third quarters of the year. Cleveland Trust Company, Fidelity Union Trust Company, National Bank of Detroit, and United California Bank joined *FAST* as WT-only agents. In September, Security Pacific National Bank became a full *FAST* agent, the first West Coast transfer agent to join both parts of the program.

As of the end of March 1979, the following nine agents participated in the full *FAST* program, holding \$48.2 billion in 1,545 issues.

Bank of New York (The)  
\*Chase Manhattan Bank, N.A. (The)  
\*Citibank, N.A.  
First Jersey National Bank  
Girard Bank  
Manufacturers Hanover Trust  
Company  
Marine Midland Bank—New York

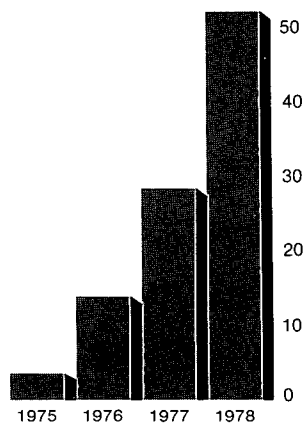
\*Participation limited.

**Number of FAST Transfer Agents\***



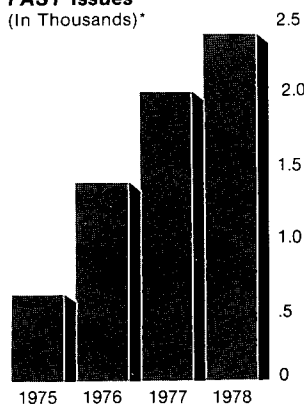
\*Yearend figures

**Dollar Value of FAST Balance Certificates**  
(In Billions of Dollars)\*



\*Yearend figures

**Number of FAST Issues**  
(In Thousands)\*



\*Yearend figures

Morgan Guaranty Trust Company of New York

Security Pacific National Bank

The following 27 agents, participating on a WT-only basis, held \$10.0 billion in 851 issues.

Bank of America N.T. & S.A.

\*Bankers Trust Company

Chemical Bank

Citizens and Southern National Bank (The)

Cleveland Trust Company

Connecticut Bank and Trust Company (The)

Fidelity Union Trust Company

First National Bank of Atlanta (The)

First National Bank of Boston (The)

First National Bank of Chicago (The)

First & Merchants National Bank

First Pennsylvania Bank, N.A.

First Union National Bank of North Carolina

Hartford National Bank and Trust Company

Irving Trust Company

Litton Industries

National Bank of Detroit

New England Merchants National Bank

North Carolina National Bank

Northwestern Trust Company

Registrar and Transfer Company

The Riggs National Bank of Washington, D.C.

State Street Bank & Trust Company

United California Bank

United Missouri Bank of Kansas City

United States Trust Company of New York

Wachovia Bank and Trust Company, N.A.

\*Participation limited

### Participant Terminal System (PTS)

Growth of the depository's Participant Terminal System (PTS) continued throughout 1978 and into the new year. Essentially PTS is a network of computer terminal stations located in Participants' offices and tied directly to DTC's computer. Participants use their terminals to communicate instructions, inquiries and other messages to DTC and to receive messages from DTC via the printers with which each terminal is equipped.

The advantages of PTS are substantial, and use of this system has been growing since its inception in 1975. There are currently 165 terminals installed or on order at 134 Participants' offices, up from 118 at 106 offices at the end of the first quarter of 1978. Usage has mounted to a daily average of over 14,000 regular delivery instructions (MDOs), or about 50% of DTC's total throughput of such deliveries, and almost 4,000 requests for certificates on demand (CODs), or 58% of DTC's throughput in that service. Total PTS use averages approximately 60,000 updates, inquiries and messages per day.

A number of accomplishments, in both systems hardware and user applications, highlighted PTS developments in 1978.

- Two new types of terminals were made available to Participants on an optional basis. The first features a printer that is almost twice as fast as the standard model and is separately addressable by DTC's computer so that inputting can continue while printed data are received. The second features two display screens in place of the standard single screen, as well as the high-speed printer.

- The installation of a new IBM 3032 computer as the depository's main processor has significantly increased the data processing resources available to PTS. Although the new computer serves all of DTC's operating system needs, its capacity materially enhances the ability of PTS to handle heavy volumes of inputs and outputs at improved speeds.

- To meet the needs of users who cannot cost-justify the use of hard-wired PTS terminals but who do require a simple informational interface with DTC's computer system, DTC offered an inexpensive alternative—the dial-in terminal. By yearend 1977, dial-in users could access ID files, receive printed confirmations, inquire into their DTC account status to obtain money settlement information, and receive messages about activity concerning their accounts, but the terminals could not be used to input or update data. In 1978, dial-in capabilities were expanded so that users may now receive most of the reports available to full PTS users. At about the same time one input capability—the transmission of ID affirmations—was added.



■ In a related development at the turn of the year, DTC added the capability of transmitting two key *ID* system reports to Participants with *PTS* terminals. Of special interest to Participants outside New York City, use of *PTS* represents a faster and more efficient alternative to the current methods—facsimile transmission or delivery by courier—by ensuring automatic receipt of the reports on their *PTS* printers early each morning. The reports added are the *ID* Eligible Trade Report, which identifies transactions that have been affirmed and can settle on settlement date, and the *ID* Settlement Report, which details the completed receipt and delivery of securities on settlement date.

■ In December 1978, DTC implemented the ability to process the pledging of securities through *PTS*, and the service quickly grew to include 24 broker-dealers and 14 Pledgeses. The primary goal of the program is to improve the timeliness of the collateral loan process by using *PTS* to notify the Pledgee that the pledge has taken place. Under the older manual system, a broker-dealer completes an input form and delivers it to DTC for processing and subsequent forwarding to the Pledgee by messenger or facsimile



Edilia Herrerra prepares to enter a collateral loan pledge on the *PTS* terminal at Herzfeld & Stern, while Louis Trisiano, Operations Partner (left), and Erich Martin, Cashier of Herzfeld & Stern, discuss the system with Valentine G. Stevens of DTC.

transmission. Use of *PTS* not only shortens the process considerably but also makes possible the early detection and correction of errors (e.g. wrong CUSIP numbers) that might otherwise cause delay or confusion.

■ A number of other *PTS* capabilities were also upgraded, expanded, or added during 1978. Chief among them were the improvement of night-time update capabilities for delivery instructions and urgent (COD) withdrawals; use of *PTS* to ensure the more timely receipt of Important Notices, especially Reorganization Notices, by Participants; the development of a faster service for inquiries into Participants' securities positions; and a service that allows broker-dealer Participants who are also members of the National Securities Clearing Corporation (NSCC) to transmit instructions affecting their NSCC continuous net settlement positions through *PTS*.

## Automated Participant Interface

The possibility of heavy and sustained surges in trading volume, so dramatically evidenced in 1978, underscores the desirability of increased automation in all phases of securities operations. In 1976, well before events lent urgency to this objective, Depository Trust began to work toward the establishment of an Automated Participant Interface (*API*) for the computer-to-computer processing of user instructions.

Many of DTC's Participants have large volumes of DTC activity for which input through an interactive system such as *PTS* would not be economical. But the underlying data have already been captured by their computers in a form readable (or easily made readable) by DTC's computers. Accordingly, many of these Participants have requested that DTC provide a system to accept and deliver substantial volumes of batched data without the need to key-enter that data.

In response to these requests, DTC has accepted hand-carried and transmitted magnetic tapes from Participants for certain input into the DTC computer system. This approach, though helpful, is operationally cumbersome. At the same time, DTC has been developing direct computer-to-

computer transmission capabilities for the processing of transfer and delivery instructions, described below.

### ■ Magnetic Tape Transfer Instructions

DTC seeks a system under which it would (1) receive customer-name withdrawal-by-transfer (WT) instructions from Participants in magnetic tape form, (2) process the tapes through its own computers, and (3) deliver or transmit the resulting DTC output tapes to transfer agents for automated processing through the transfer agents' computer systems.

Such a system would offer substantial advantages to all concerned. Participants would be spared the costly manual processing of paper forms for delivery to DTC and the attendant risk of delay and errors creeping into the data. DTC would realize significant cost savings with the elimination of key-entering and sorting of transfer instructions—and the errors those processes introduce—as well as the other steps in the manual treatment of incoming and outgoing paper. Transfer agents would be relieved of much of their own paperwork and associated costs and errors. The entire process would be further telescoped, and its costs reduced, by DTC's already existing ability to electronically "recycle" for later, automatic resubmission those magnetic

tape instructions which would otherwise be rejected because they happen to arrive on a record date or at a time when the Participant's position is temporarily insufficient.

The chief obstacle to such a system has been the fact that each transfer agent requires that the tapes it receives be in a specific, standardized format in order to process them without re-keying the data. The Participant tapes, on the other hand, are generated in a variety of nonstandard formats, differing from Participant to Participant.

To overcome this problem, DTC has sought to build sufficient Participant magnetic tape WT volume to convince major transfer agents that their own conversion to tape processing would be timely. The depository also began to develop a computer program which would enable it to receive tapes from Participants, in their current, nonstandard formats, and automatically restructure them into standard formats the transfer agents require.

In March 1978, to share its cost savings from magnetic tape transfer processing with Participants and to encourage their conversion to tape input, DTC established a discount in its WT fee for magnetic tape instructions, charging 56¢ per instruction instead of the 63¢ for a paper instruction.



Robert Dick (left), Assistant Vice President, and Richard Porzio, Associate Director, both of DTC with Jeremiah J. O'Connell and Anthony Fedele, respectively Vice President and Senior Vice President of Shearson Hayden Stone Inc.

Largely as a result of this fee incentive and the savings in Participant operations expenses described above, the number of Participants now submitting WT instructions on magnetic tape has grown to 12, accounting for about 37% of DTC's average daily WT volume of about 23,000 instructions. Thus, the objective of obtaining substantial Participant tape input has been achieved, despite the fact that DTC must still process such tapes, print the data on forms, and forward the forms to the transfer agents for re-keying there in the standardized format.

In early 1979, DTC's efforts to resolve technical aspects of the problem resulted in the development of a Syntactical Analysis program, which enables DTC's computers to accept nonstandard transfer data from Participants and restructure them into a standard record for transfer agents. In its latest tests, the system successfully reformatted 78% of all transfer instructions submitted, while accurately determining the type of registration (individual male, individual female, joint tenancy, etc.) in 91% of the instructions. The next step will be a pilot program with interested transfer agents, who will use the data forwarded by DTC on tape to update their transfer systems without re-keying.

DTC's ultimate objective is for transfer agents not only to receive magnetic tape WT instructions, but also to return magnetic tape reports of transfers accomplished or rejected. Return tapes would be passed on to Participants for automatic updating of their records.

### ■ Magnetic Tape Delivery Instructions

Although the number of Participants with the in-house capability for generating computerized delivery instructions is still small, those that do have it account for a high percentage of DTC's delivery volume. Accordingly, DTC has begun a pilot program for the processing of hand-delivered magnetic tape delivery instructions. Four Participants are currently participating in this program: E.F. Hutton & Co. Inc.; Merrill Lynch, Pierce, Fenner & Smith, Inc.; Paine,

Webber, Jackson & Curtis Inc.; and Shearson Hayden Stone Inc. Ultimately, DTC will deliver automated activity data for Participants to enter into their own computer systems to update their files and to compare their own records against DTC's on a same-day basis.

The development of full-scale computer-to-computer transmission capabilities in this area is subject to the establishment of a standard transmission protocol to which all Participants will agree. DTC is working to resolve these technical problems; other broker-dealers will be added to the service once this has been accomplished.

### Conditional Deliver Orders

In April 1978, DTC launched a new service, Conditional Deliver Orders (CDOs), designed to permit the borrowing of securities by Participants on a conditional basis, through book-entry, for subsequent automatic redelivery in the Institutional Delivery (*ID*) system.

The major feature of this service is that borrowings by a Participant that turn out to be unnecessary, because sufficient securities are unpredictably received for the Participant's account from other sources, are automatically returned to the lender by DTC. This relieves the borrower of the need to monitor the receipt of securities from



Examining reports from DTC's Conditional Deliver Order (CDO) service are (seated from left to right) Gary P. Quigley, Cashier, and Frank J. DeCongelio, Vice President-Corporate Operations, both of The First Boston Corporation and James Michaels, Assistant Vice President-Operations, of A. G. Edwards & Sons, Inc. Standing is Marshall B. Hall, Director of Operations at DTC.

other sources and prepare delivery instructions for the return of the borrowed securities if they are not needed for delivery to its institutional client.

On the basis of favorable Participant response to the CDO service, DTC expanded the program in December to include conditional borrowings of securities needed for urgent withdrawals (certificates-on-demand) for physical deliveries to institutions that do not yet participate in depositories.

The net effect of the full CDO service is to encourage completion of securities deliveries on settlement date, simplify Participant operations, and make unneeded securities returned to lenders available for loans to others. There is also a small fee advantage for CDO users. Although DTC's fee for CDOs is the same as for regular delivery instructions, there is no charge for the automatic return to lenders of securities which turn out to be unneeded. DTC does charge a fee when Participants return any securities loaned to them through regular delivery instructions.

## Distribution of Underwritings

The DTC service for book-entry distribution of and payment for securities offered in public underwritings showed continued growth in 1978, its third full year of operation. The service was used by 27 managing underwriters to distribute 71% of the total value of 327 issues, or \$15.8 billion (the full value of the 327 issues was \$22.3 billion). In 1977, the service handled 252 issues with \$13.3 billion distributed through DTC. The 1978 distributions comprised 151 issues of debt and 176 of equity with values of \$11.0 billion and \$4.8 billion, respectively.

Highlighting the year's activity were the first distributions of three types of issues new to the depository:

- Five issues of Yankee Bonds (bonds of foreign entities denominated in U.S. dollars and sold in the U.S.) totaling \$725 million in value, issued by the governments of Australia, Sweden and the United Kingdom;
- Eight issues of Canadian bonds totaling slightly under \$2 billion in value; and

■ A single interchangeable municipal bond issue—by the Municipal Assistance Corporation For The City of New York (MAC)—involving \$97 million in deliveries against payment, and described more fully in the Interchangeable Municipal Bonds section of this report.

DTC's underwriting distribution service is designed to benefit underwriters and issuers, in addition to other broker-dealer and bank Participants. Underwriters realize lower financing costs by the elimination of day loans and, in the case of distant closings, overnight or weekend loans. Issuers are afforded substantial reductions in the issuance and transfer of certificates. Bank and broker-dealer Participants receiving distributions benefit through the elimination of the endorsement, microfilming, packaging, delivery and receipt of certificates and associated documents, as well as the rapid delivery turnaround normally associated with the use of book-entry.



Colin W. Rance (left), Manager of Eurobond Operations and Lawrence Henzel, Manager of Syndicate Operations, both of Morgan Stanley & Co. Incorporated, discuss arrangements for partial distribution of \$750 million of Canada bonds through DTC at Morgan Stanley's headquarters in New York City.

## Voluntary Offerings

DTC offers several services related to voluntary offerings. Each service was developed in 1977 and is designed to keep securities immobilized in the depository during periods when Participants have the right to surrender the securities to agents for cash and/or other securities. Use of these services grew substantially in 1978.

■ *Conversions.* DTC's conversion procedures allow Participants to use book-entry to surrender convertible bonds or preferred stocks in their depository accounts for same-day credit in the underlying securities, usually common stock. Participant processing expense is thereby reduced, while the costs of financing transactions during the interval when the certificates would otherwise be at the conversion agent are entirely eliminated. Over 400 convertible issues are eligible for this service; approximately \$760 million of securities conversions were accomplished by book-entry in 1978.

■ *Exchange and Tender Offers.* In March 1978, Depository Trust completed the processing of the first tender offer ever effected by book-entry, by passing through to Participants a single payment of almost \$13 million for EG&G, Inc. common stock they had surrendered through DTC. The book-entry processing of four additional tender offers, involving total payments of



James Devine of Bache Halsey Stuart Shields, President of the Reorganization Group of the Securities Industry Association (center), reviews DTC's performance in processing the EG&G tender offer with Glenda M. Lascot of Paine Webber Mitchell Hutchins International Inc. and Frank C. Macri of L.F. Rothschild, Unterberg, Towbin, both past presidents of the group. Procedures used for the EG&G offer were developed over a period of more than two years during their administrations.

almost \$128 million, began during the fourth quarter, some of them continuing into the early weeks of 1979.

■ *Redemption of Floating Rate Notes and Rollovers of Government Securities.* DTC Participants may redeem floating rate notes and other securities with similar repayment options by means of book-entry, the cash proceeds being credited to their DTC settlement accounts. Participants with maturing U.S. Treasury bills on deposit can also use DTC to reinvest, or "roll over," the proceeds into new bills issued on the maturity date. Although the number of transactions effected through these two services is not large, the services themselves are considered important by Participants in that they reduce the expenses associated with exception processing.

## Dividend Reinvestment

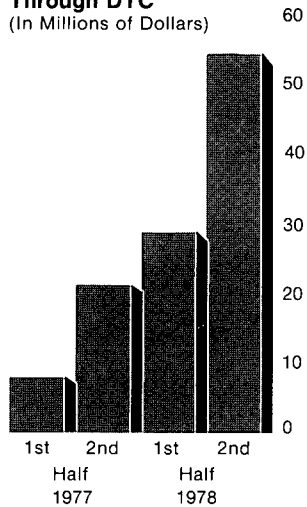
DTC's Dividend Reinvestment Service (*DRS*) registered one of the highest percentage growth rates of any of the depository's services in 1978, its second full year of operation.

Launched in December 1976, with a single dividend reinvestment plan offered by American Telephone & Telegraph Company, *DRS* had grown to include three plans, and had helped generate \$29.8 million in new capital for participating issuers, by the end of 1977. Growth accelerated sharply in 1978. By yearend, participating issuers numbered 17 and capital generated had surged to \$83.6 million for the year.



Robert C. Lamperti (left), Manager-Stockholder Relations, Allied Chemical Corp., John W. Downey (center), Assistant Vice President, Morgan Guaranty Trust Company, and Fred J. Hampton, Planning Consultant of DTC, discussing the success *DRS* has enjoyed in raising capital for sponsoring corporations.

**Dividends Reinvested Through DTC**  
(In Millions of Dollars)



The purpose of *DRS* is to allow those Participants who wish to reinvest all or part of their dividends in a security subject to an issuer's reinvestment plan to do so by book-entry, without withdrawing the underlying shares from their DTC accounts. The advantages to Participants are significant. Without *DRS*, a Participant would have to either hold back from depositing or withdraw from the depository prior to record date those securities in which dividends *might* be reinvested, even if a definite decision had not yet been reached. In either case, the certificates involved would have to be handled on an exception basis and the benefits of certificate immobilization through depository usage would be largely defeated. In addition, Participants would have to themselves arrange for reinvestment of dividends through the various plan administrators, and then handle both the certificates for the stock thereby purchased and the checks for cash in lieu of fractional shares. With *DRS*, these cumbersome and duplicative tasks are eliminated as between Participant and plan administrator, and replaced by a far more flexible and less costly set of largely automated book-entry transactions with DTC.

Throughout the contemplated expansion of this service in the future, DTC will continue to confine its role to that of simple, albeit efficient, intermediary between Participants and dividend reinvestment plan administrators.

### Shareholder Communications

Under applicable law, Depository Trust is required to have custody of the securities in which it effects transactions by book-entry. Given this requirement, DTC has placed a high priority on preventing its custody from becoming a barrier to communications between issuers and beneficial owners. Every effort is made to ensure that the deposit in DTC of securities which would otherwise be held by DTC Participants in "street name" will not result in any substantive change in the procedures by which issuers and beneficial owners communicate.

Toward this end, whenever an issuer announces a record date for a special or

annual meeting of stockholders, DTC automatically supplies such issuer with a Record Date Report free of charge. Issuers may also receive similar reports on a daily, weekly, monthly or dividend-record-date basis, upon request and for a modest fee. Each of these reports lists the number of shares of the issue on deposit with DTC, itemized by Participant.

Together with the Record Date Report, DTC automatically mails an Omnibus Proxy to each issuer after the record date for each shareholders meeting of that issuer. The Omnibus Proxy is, in effect, an assignment to each DTC Participant of the voting rights associated with the shares of that issue which it had in its DTC account as of record date. Simultaneously, each such Participant is notified that the Omnibus Proxy has been submitted and of the number of shares it is entitled to vote. At this point, DTC is removed from the chain of communication between issuer and beneficial owners and cannot become a source of delay as an unnecessary link in that chain. Each Participant is able to ask the issuer or its agent for whatever quantity of proxy cards and material it requires to discharge its legal obligations to beneficial owners, in the same manner as if the depository had never been a party to the communications.



Arnold Fleisig (left), Vice President of DTC, David W. Pitou, Manager-Stockholder Services of International Business Machines Corporation, and Joaquin R. Ruiz, Director-Reorganization and Proxy Department of DTC.

Depository Trust registers deposited securities in the name of its nominee, Cede & Co., for three major reasons:

1. To permit prompt determination of whether the deposited certificates are indeed transferable, or whether they are subject to a "stop transfer" order, counterfeit, or otherwise not capable of negotiation. If such a problem is found to exist, DTC can quickly take the appropriate steps to obtain replacement securities from the depositing Participant;
2. To permit re-transfer, when necessary, in the simplest and quickest manner possible; and
3. To permit DTC to ensure the proper and timely allocation of dividends, distributions and voting rights to depositors.

It should be pointed out that, for many of the shares on deposit in DTC, their deposit—and their immediate re-registration by DTC—improves issuer-to-beneficial owner communication. Prior to the existence of the depository, many of the underlying certificates would doubtless have been circulated by endorsements, unknown to the issuer, for prolonged periods prior to re-registration.

## Interchangeable Municipal Bonds

DTC's first step toward an eventual program of municipal bond services occurred in

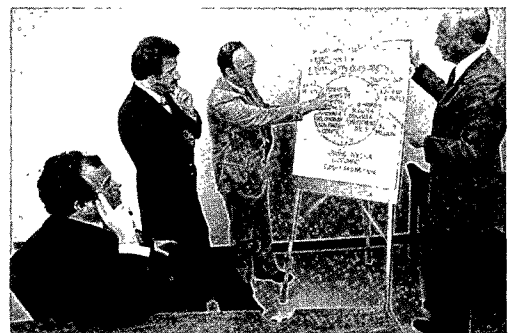


Receive and Deliver Clerk Dianne Miller counts and verifies a municipal bond deposit at United States Trust Company of New York. Looking on are Joseph A. Palmeri (left), Vice President of Merrill Lynch, Pierce, Fenner & Smith Incorporated, Steve Soltis, Vice President of The Chase Manhattan Bank, N.A., Richard T. Barklie, Assistant Vice President of U.S. Trust, Edward J. McKigney, Vice President of Citibank, N.A., and Stephen R. Goldenberg, Partner at Goldman, Sachs & Co.

mid-1978, when Participants began depositing the first such bonds eligible for depository services into their DTC accounts.

These initial deposits comprised three outstanding issues of the Municipal Assistance Corporation For The City of New York (MAC), marking the start of a pilot program expanding depository services to large municipal issues, interchangeable between bearer and registered forms, for which the transfer agent holds DTC inventory in a balance certificate. The purpose of the program is to test and demonstrate the benefits of immobilizing a portion of municipal bond issues for delivery and pledge by book-entry, including reduced risk of loss or theft of unneeded bearer certificates and coupons, and elimination of the costs of coupon clipping and collection of payment. In the months that followed, eight additional outstanding MAC issues were made eligible for depository services, bringing total DTC municipal bond deposits to \$59 million.

On November 30, 1978, the first distribution of a new municipal bond issue through DTC—and the first opportunity for bank underwriters to take down their portions of an underwriting by book-entry—was completed. The new offering was a \$250 million bond issue by MAC, with Salomon Brothers the managing underwriter and United States Trust Company of New York the trustee/transfer agent. Each underwriter



William J. Tierney, Jr., Vice President of Salomon Brothers (seated), reviews plans for the immobilization of three municipal bond issues with (standing, left to right) Joseph Anastasio, Vice President at Salomon Brothers, Malcolm J. Hood, Senior Vice President of United States Trust Company of New York, and William F. Jaenike, Vice President at DTC. Mr. Anastasio is Chairman of the Municipal Bond Committee of The Cashiers' Association of Wall Street, Inc.

had the choice of receiving the bonds in any combination of bearer, registered and book-entry forms.

By the close of the offer, \$97 million, or 39% of the issue's value, had been deposited in DTC for book-entry delivery against payment to 47 members of the underwriting syndicate. Nine banks accounted for 18% of this figure, or \$17.4 million; 38 brokers took down 82%, or \$79.6 million.

Had it not been for the use of DTC's underwriting service, over 19,000 bearer certificates with coupons would have had to have been issued to distribute the \$97 million. Instead, only 366 certificates were registered in DTC's nominee name. The largest was a certificate in the principal amount of \$92 million, held as a FAST balance certificate for DTC by U.S. Trust; the others, of various denominations with a combined principal amount of \$5 million, were stored in DTC's vault in registered form to meet Participant requests for urgent withdrawals. Participants could also obtain bearer certificates when needed, through arrangements between DTC and U.S. Trust.

DTC closed the year with a total of \$111.6 million in municipal bond deposits.

## Options

Prospects for DTC's interface with The Options Clearing Corporation (OCC), already in use by 30 broker-dealers and 35 banks, with total securities "pledges" of \$653 million in satisfaction of OCC requirements at yearend 1978, took an even more pronounced upward turn on the basis of two



Joseph J. Marino (left), Director of Operations, Charles J. Horstmann, Assistant Vice President, both of DTC, Vincent S. Morano, Senior Vice President of Lewco Securities Corp., and Kevin Young, Vice President of A. G. Becker Incorporated.

developments during the closing months of the year.

First, OCC itself launched a major effort to persuade broker-dealers and banks to abandon the use of escrow receipts in favor of the "Third Party Pledge System" offered by DTC and other depositories. Second, DTC completed the development of a payment order service to provide Participants with a more efficient method for settling sums related to option contract premiums.

The Third Party Pledge System circumvents the disadvantages of the older escrow receipt method, in which a bank holds securities in an escrow account, issuing a receipt which can be used in lieu of the securities to satisfy the writer's call option collateralization requirements. Under the Third Party Pledge System, third-party banks may pledge securities on deposit at DTC or another approved depository through the existing depository interface with the broker-dealer and OCC. Changes in the quantity of shares pledged do not require release and re-issuance of escrow receipts, nor do changes in the option series to be covered. In the former case, the amount of shares pledged is simply increased or reduced, as required, while in the latter the pledgor merely submits a "rollover" form supplied by OCC. Processing is simplified because there are no repeated movements of paper among the parties to the transaction. And, since certain shareholders equity limits of the escrow receipt method do not apply, any bank depository member may use the pledge method to the full extent that it has the securities to pledge.

DTC's payment order service, which went into full operation early in 1979, enables banks and broker-dealers to use DTC's settlement system to collect from each other option contract premiums related to third-party pledges, releases and rollovers of collateral with OCC. It is expected to contribute significantly to user convenience and growth of the depository's option function.

In the early weeks of 1979, another development occurred which further enhanced the ability of DTC Participants to satisfy their options-related requirements



by book-entry. OCC announced the approval by its Board of Directors of an extension to the Third Party Pledge System to include PUT option contracts collateralized by Treasury bills. Previously, banks had been permitted to collateralize the PUT option obligations of brokers' customers with cash only. Under the new method, however, bank Participants will be able to cover the exercise price of PUT option contracts by depositing Treasury bills with DTC and pledging the appropriate value to OCC by DTC book-entry.

## **Interfaces in a National Clearance and Settlement System**

Depository Trust's interfaces with other clearing agencies—both clearing corporations and other securities depositories—are major elements in the evolving national clearance and settlement system. They permit participants in various clearing agencies to use their securities positions in one location to settle transactions in other clearing corporations and with users of other depositories, without inter-regional movement of securities certificates.

From the time of its inception, Depository Trust has maintained a close interface with the New York Stock Exchange's Stock Clearing Corporation, the American Stock Exchange Clearing Corporation, and, after 1974, the National Clearing Corporation of

the National Association of Securities Dealers. This interface, created to permit settlement by DTC book-entry among NYSE, ASE and NASD members, continued when the businesses of the three clearing corporations were transferred to three separate operating divisions of a new National Securities Clearing Corporation (NSCC) in January 1977. In December 1978, NSCC combined the three divisions into a single operating entity. To achieve interface capabilities for the generally smaller broker-dealers whose membership was previously limited to the NCC Division, 46 former NCC-only members have joined DTC, either as direct Participants or through NSCC-sponsored accounts. In the case of these sponsored accounts, NSCC is responsible to DTC for all obligations of "sponsored" firms, including daily settlement obligations. The 1978 NSCC consolidation also led to the addition of 2,400 more over-the-counter issues to DTC's eligible OTC securities list, as described elsewhere in this report.

DTC also has operated interfaces with other clearing agencies for several years. These cooperative program relationships exist with the Stock Clearing Corporation of Philadelphia, the Midwest Securities Trust Company, the Pacific Securities Depository Trust Company, the New England Securities Depository Trust Company and The Options Clearing Corporation. These interfaces continued to widen in 1978.



Robert Ross (left), First Vice President of E.F. Hutton & Company Inc., and Alfred C. Turrisi, Senior Vice President-Operations of Paine, Webber, Jackson & Curtis Incorporated with Thomas J. Lee, Vice President, and Howard Levison, Director-Data Processing Operations, both of DTC.

Since 1976, DTC has maintained a complete interface with the Midwest Securities Trust Company (MSTC), permitting a sole member of either depository to settle transactions with any member of the other. This "third-party" delivery service eliminates the requirement that a member belong to both depositories in order to effect such settlements.

In early 1978, the interface between DTC and Pacific Securities Depository Trust Company (PSDTC), which had not yet included this feature when established in 1977, was upgraded to accord users of either depository the same third-party delivery capability as exists between DTC and MSTC.

A further enhancement to the Pacific interface was added in September, when DTC's Institutional Delivery (*ID*) system and the Institutional Clearing Program (ICP) of Pacific Clearing Corporation (PCC) were interconnected for magnetic tape-to-tape communication (PCC and PSDTC are subsidiaries of the Pacific Stock Exchange). With this new link, DTC's broker-dealer Participants can submit trades for settlement with ICP members along with their normal *ID* trade inputs. DTC reports all such trades to ICP in one daily transmission, replacing the older method, in which each broker-dealer transmitted its own confirmations separately. A similar link between *ID* and MSTC's Participant Delivery Program has also been programmed by DTC.

DTC has also maintained an interface with Stock Clearing Corporation of Philadelphia (SCCP) for a number of years. Under this arrangement, SCCP has been a Participant in DTC and its members have been able to settle transactions with DTC members by book-entry. In mid-1978, SCCP obtained the approval of the Pennsylvania Banking Department for its subsidiary depository, Philadep, to organize as a trust company. DTC expects to begin a depository-to-depository interface with Philadep at some point in the future.

In 1977, DTC and the New England Securities Depository Trust Company (NESDTC), a Boston-based depository serving a number of New England broker-dealers and institutions, initiated an interface under which NESDTC became a Participant in DTC. In November 1978, DTC became a member of NESDTC and the interface was expanded to make it substantially equivalent to the MSTC and PSDTC interfaces by the addition of third-party delivery capabilities.

## Protection for Participants' Securities

Depository Trust is the world's largest custodian of corporate stocks and bonds. Its record holdings and activity—and their steady growth—reflect the fact that the depository's program of safeguards is widely regarded as the most comprehensive yet developed to monitor the movement and custody of securities. DTC's unique system rests upon the extensive internal controls, physical security, repeated internal and external audits, insurance coverage, multi-million dollar protective Participants Fund, and other features described below. Its effectiveness is perhaps best evidenced by three facts.

- In the 10 years since the inception of the Depository Trust system, it has transferred ownership of securities worth \$2 trillion.
- There has never been a claim against the DTC Participants Fund.
- There has never been a claim against DTC or its insurers for the negotiation of missing certificates.

### Internal Controls

DTC's internal control system is designed to record the movements and location of every individual certificate in DTC's custody, from the time it is received, through its processing to and from transfer agents, through its entry into and delivery from the vault. The records required by this system are also used to resolve processing errors, facilitate



Edward W. Reilly (left), Manager-Internal Security, Michael T. Mullen, Director-Internal Security, and Willie Harper, security guard, all of DTC.

reconciliations and audits and for similar purposes. The key features are as follows.

- Automated certificate-number control is DTC's single most important safeguard. A unique computerized record cross-indexes each certificate by issue, number, denomination and date of receipt, permitting maintenance of control and rapid reconstruction of paperflow regardless of volume. The data available from this record provide an important tool in reconciliation, research and the collection of dividend and interest payments. Auditing is also facilitated, with the auditors accounting for certificates by denomination and certificate number, when comparing physical certificates to computer generated inventory listings.
- Certificates deposited with DTC normally are quickly transferred into the depository's nominee name, Cede & Co. This step permits prompt determination of certificate validity, i.e. that the certificate is not subject to a "stop-transfer" order or otherwise defective. It also enhances control over the collection of dividends and interest.
- Large denomination "jumbo" certificates are used to consolidate many of the securities on deposit. Because of their high value, "jumbos" are extremely difficult for unauthorized persons to negotiate, and the risk of loss is thereby further reduced.
- DTC places restrictive endorsements on the back of certain "jumbo" certificates to further preclude their negotiation by unauthorized persons.
- Certificates remain in non-negotiable form while in DTC's custody.
- Microfilm records of certificates and their related documentation are made upon receipt into or delivery out of the depository. The film is developed on premises to ensure the capture of all information while the certificates are still in the processing stream.
- Duplicate computer files of all transactions are maintained in separate storage locations, including one remote rural site, permitting prompt reconstruction of files in the event that a processing interruption were to occur. DTC also maintains comprehensive files of original documents and production reports in addition to the duplicate computer files and microfilm records.

Additionally, proposed significant changes to the internal control system are reviewed by DTC's independent accountants.

## Physical Security

DTC's physical security system is an extremely sophisticated one, encompassing both electronic and physical devices, and a large staff of armed guards and other security professionals.

The salient features of the system include the following:

- An access control mechanism, including floor-to-ceiling steel turnstiles, inhibits unauthorized entry into data processing areas. Entry is restricted to employees with specially encoded photo identification cards, who must also key in an individualized numerical password to secure admission. The turnstiles are monitored by closed circuit television; a record of all entries and exits is maintained.
- A surveillance system of closed circuit television cameras and video monitors provides complete coverage of the vault and other securities processing areas.
- A silent alarm system is strategically located at points throughout the securities processing areas. Vibration alarms are installed to signal any attempt to forcibly penetrate the vault. A modern smoke and heat detection and fire control system protects the vault and computer sites. Systems interruptions or malfunctions themselves trigger independent malfunction alarms that alert the Security Department.



William Avella, Supervisor, dispatching instructions by radio to a patrol guard in DTC's security force.

- An armed security force monitors the television surveillance, access control, and fire control systems, screens all persons entering and leaving security areas, and determines the contents of all packages.
- A modern underground vault on DTC's premises contains most of the securities deposited with it. Other securities are kept in the form of balance certificates maintained by qualifying transfer agents.
- Registered securities delivered to or received from transfer agents and other parties are required to be in non-negotiable form.
- Special waste paper treatment and disposal methods help to prevent the escape of usable written information from secured processing areas.

## Securities Recordkeeping

DTC uses a double-entry recordkeeping system to control securities positions. Every transaction in a Participant's account is recorded and the physical location of underlying certificates—at DTC, with transfer agents, at other depositories, or in transit—is identified. These records are also used as a source for internal reports and reports to Participants, and by the depository's Reconciliation Division to locate and correct any differences with Participant records.

## User Verifications

Among the most effective depository safeguards is the continuous verification of DTC records by users, based on their own records of activity with the depository.

Each morning, Participants and Pledges receive a daily report itemizing and summarizing the previous day's activity in their accounts. These reports start with the opening balance of securities in each issue in which there was a transaction and go on to list each transaction in that issue on that day and the closing balance of securities in that issue after accounting for all transactions. Daily reports of cash transactions are also available. Under the depository's Rules, Participants are required to report any differences between their own records and the depository's statements. DTC has a

research staff to help reconcile any differences.

In addition, each Participant and Pledgee receives a monthly position statement showing the status of all of its securities positions, including those in which there may not have been any transactions. Participants and Pledgees are required to confirm the accuracy of their monthly position statements in writing, within 10 business days after the statement has been made available to them. Failure to confirm can result in a fine under the depository's Rules. These continual confirmations protect the integrity of the DTC system and encourage a high degree of cooperation at the operational level between the depository and its users.

### **Internal and External Audits**

The securities records of Depository Trust are audited both by DTC's internal auditors and by Price Waterhouse & Co., the depository's independent accountants. Through their combined efforts, all securities issues in DTC's vault are counted at least once a year.

The internal audit program focuses on DTC's certificate processing, data processing, and financial operations. Certificate inventory control includes daily counts of all certificates in selected issues in the vault, so scheduled that each issue will be counted at least once a year by DTC's internal or external auditors. To ensure that issues are not selected for counting in a predictable sequence, a random method of selection is used. In addition, special counts of high-value certificates are conducted more frequently.

DTC's Auditor submits to the Audit Committee of the Board of Directors monthly reports which summarize the status of his work. The Committee consists

of three Directors charged with the responsibility of supervising the Auditor and the Auditing Department and reviewing and approving the internal audit program.

During the course of the year, among other things, Price Waterhouse & Co.:

- examines and reports on DTC's financial statements;
- audits securities records and positions;
- reviews all significant changes in internal controls and operating procedures;
- reviews controls for the safeguarding of securities, dividends, data processing, and other depository operations;
- issues a Report on Review of Internal Accounting Control, which is available to Participants, Pledgees, their accountants and others who may desire it, upon request; and
- issues a Memorandum on Principal Procedures and Internal Accounting Controls, which is also available upon request, and is prepared especially for the use of Participants' independent accountants.

DTC's Audit Committee also reviews the scope of the auditing procedures of the independent accountants, directly receiving all reports issued by those accountants to the depository, and meets with them periodically to discuss the results of their work.



Maureen Hanley, Legal Assistant, and Albert M. Munson, Associate Counsel, both of DTC, reviewing a point concerning the depository's insurance coverage.

## Insurance

The insurance coverage available for securities deposited in DTC is among the most extensive of any private institution in the financial industry.\*

Specifically, insurance is available in the following amounts per event:

**A. Losses Occurring on Premises:**

1. \$75 million coverage under Primary and Excess Blanket Bonds; plus
2. \$5 million Lost Instrument Bond Premium Policy, covering premiums for purchase of lost instrument bonds for securities losses in excess of \$75 million.

**B. Losses Occurring in Transit by Messenger or Armored Car Carrier:**

1. Primary coverage of
  - (a) \$5 million under Air Courier Messenger Policy covering securities lost in transit via Brink's or Wells Fargo Armored Service Corporation; and
  - (b) \$100 million In-Transit coverage provided by the insurer of the armored car carrier service used by DTC; and
  - (c) \$75 million under Primary and Excess Blanket Bonds for securities lost while in the custody of messengers; plus
2. Excess coverage of
  - (a) \$75 million under Primary and Excess Blanket Bonds for securities lost while in the custody of an armored carrier;
  - (b) \$20 million under Excess In-Transit Bond covering securities losses in excess of \$75 million when securities are in the custody of messengers, and in excess of \$175 million when securities are in the custody of an armored car carrier;
  - (c) \$5 million under Armored Car and Messenger Policy covering securities losses in excess of \$95 million when securities are in the custody of messengers, and in excess of \$195 million when securities are in the custody of an armored car carrier;

(d) \$5 million under Lost Instrument Bond Premium Policy covering premiums for the purchase of lost instrument bonds for securities losses in excess of \$100 million when securities are in the custody of messengers, and in excess of \$200 million when securities are in the custody of an armored car carrier.

**C. Losses Occurring in the Mail:**

1. \$5 million under Mail Policy covering securities lost after having been sent via registered mail;
2. \$5 million under Mail Policy covering securities lost after having been sent via United States Postal Service Express Mail Service, Option 1 (Door-to-Door) and Post Office-to-Addressee service;
3. \$250,000 under Mail Policy covering securities lost after having been sent via First Class Mail.

Still more protection is available to bank and broker-dealer Participants with their own standard blanket bond coverage, in the form of riders to their policies providing that such bonds will cover securities held by DTC for the account of the Participant. A bank or broker-dealer with such a rider to its blanket bond would be reimbursed by its own insurer (to the extent of the coverage provided by the rider) for its *pro rata* share of uninsured securities losses by DTC in the unlikely event that such losses were to exceed DTC's insurance coverage.

\*The description of insurance protection set forth in this section includes summaries of the terms of DTC's insurance policies and Rules and Procedures, to which reference should be made for complete statements on these subjects.

## Participants Fund

The Participants Fund is a reserve fund contributed by Participants and maintained by DTC to satisfy losses not covered by DTC's insurance. DTC's Rules provide that any such loss would normally be charged initially against undivided profits or retained earnings, but permit the Board of Directors instead to elect to charge it to the Participants Fund.

Should a loss be suffered by DTC due to the failure of a Participant to satisfy its obligations to DTC, such loss would first be charged to that Participant's contribution to the Participants Fund. If the loss were in excess of that Participant's contribution (or if the loss were sustained for reasons other than a Participant's failure), the excess may then be charged to the contributions of other Participants to the Participants Fund on a *pro rata* basis.

DTC's Rules provide that, in the event of any charge against a Participant's contribution to the Participants Fund (whether *pro rata* or otherwise), the Participant is required to make an additional contribution to the Participants Fund in an amount equal to the charge.

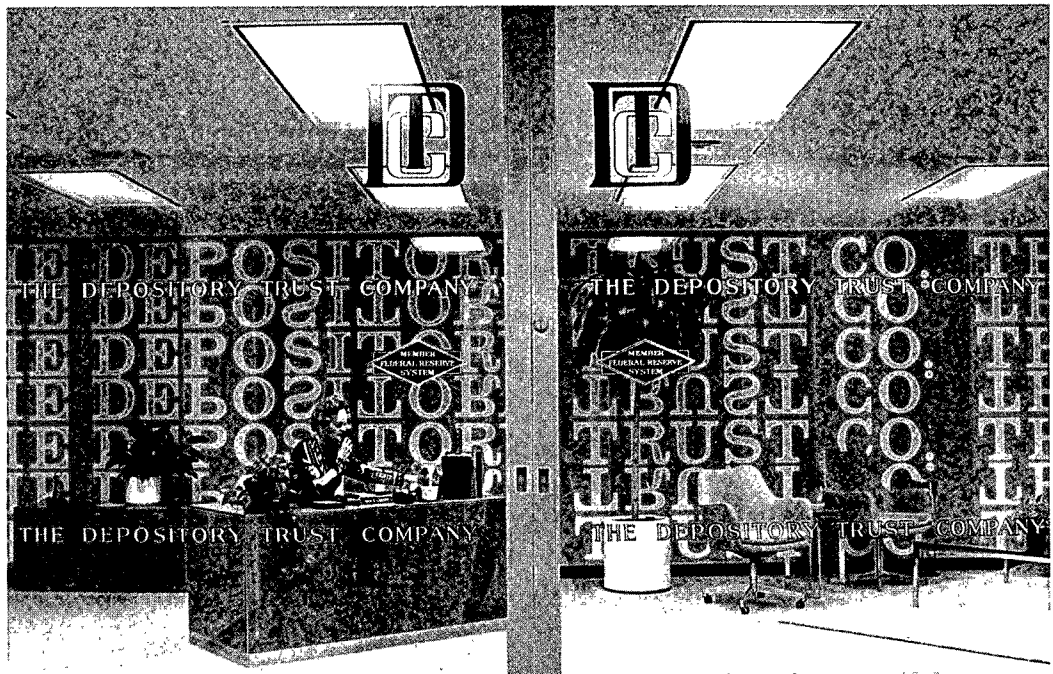
To date, no charges of any sort have ever been made to the Participants Fund of either DTC or its predecessor organizations.

## Other Protective Procedures

Other depository procedures are also available to protect Participants. DTC's Rules provide a variety of remedies to minimize the possibility of loss arising from the unexpected insolvency of a Participant. In the event of signs of a Participant's operational or financial inadequacy, or advice to that effect from self-regulatory organizations or others, DTC carefully monitors that Participant's further activity, implementing such protective remedies as events warrant.

## Regulatory Examinations

The Depository Trust Company is a limited purpose trust company organized under the banking laws of New York State and a member of the Federal Reserve System. As such, DTC undergoes unannounced annual examinations by the New York State Banking Department and the Federal Reserve Bank of New York, which report their findings to DTC's Board of Directors.



## Administration

The special status of Depository Trust as a mutualized service organization for its Participants requires that it incur the lowest possible operating costs compatible with its ability to provide the greatest possible cost savings and service to its users. Thus, either the further automation of current depository



Michael A. Agnes (left), Comptroller, Ronald A. Garguilo, Director-General Services, John P. Crowley, Vice President, Leonard Miele, Assistant Treasurer, and Len Leimgruber, Director of Personnel, all of DTC.

functions to improve DTC's cost efficiency or the addition of new services that may increase DTC's operating costs but create net savings for users may be appropriate, depending on circumstances.

It is a corollary policy of DTC to limit its profits and to return to its users such revenues as the Board of Directors believes exceed the funds required for the depository's operation.

In accordance with this policy, the Board of Directors authorized the return of a record \$4.7 million to users in December 1978. As in the past, all organizations that were Participants, Pledgees or Depository Facilities at any time during the year shared in the refund in the same percentages as their respective depository fees bore to the total of all such fees received by DTC during the first 11 months of 1978.

This action marked the fourth consecutive year in which the depository has returned all estimated excess income to users. The record size of the refund reflected the unprecedented—and unexpected—sustained volume which began in April, together with extraordinary interest income as a result of higher than anticipated interest rates.

As a result of the year's growth in depository usage, partly reflecting the addition of new services and the expansion of DTC's eligible list of over-the-counter securities, Depository Trust staff increased to 1,073 full-time employees at yearend 1978 from 952 a year earlier.



## Report of Independent Accountants

February 1, 1979

To the Board of Directors of  
The Depository Trust Company

We have examined the statement of condition of The Depository Trust Company at December 31, 1978 and 1977 and the related statements of revenues and expenses and undivided profits and of changes in financial position for the years then ended. Our examinations were made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. Our examinations also extended to the records of securities held for others by the Company and included physical examination of selected securities on hand during each year and such confirmation and additional auditing procedures as we considered necessary.

In our opinion, the accompanying financial statements present fairly the financial position of The Depository Trust Company at December 31, 1978 and 1977 and the results of its operations and the changes in its financial position for the years then ended, in conformity with generally accepted accounting principles consistently applied.

153 EAST 53RD STREET  
NEW YORK, NEW YORK 10022

*Pricewaterhouse & Co.*

The Depository Trust Company

**Statement of Condition**

	December 31,	
	1978	1977
<b>Assets</b>		
Cash	\$ 12,529,000	\$ 3,783,000
Repurchase agreements	50,216,000	42,985,000
U.S. Government securities	6,240,000	6,285,000
Receivables:—		
Participants:		
For settlements	6,750,000	1,606,000
For services	2,858,000	2,433,000
Affiliates	343,000	407,000
Dividends, interest and other (Note 5)	7,216,000	5,808,000
Prepaid expenses and deposits	887,000	468,000
Equipment and leasehold improvements, less accumulated depreciation of \$1,806,000 in 1978 and \$1,448,000 in 1977	1,930,000	1,599,000
Leased property under capital leases, less accumulated amortization of \$2,587,000 in 1978 and \$1,902,000 in 1977 (Note 7)	6,291,000	4,463,000
Contributions to Participants Fund, callable on demand (Note 3)	70,658,000	47,391,000
	<u>\$165,918,000</u>	<u>\$117,228,000</u>
<b>Liabilities and stockholders' equity</b>		
Liabilities:—		
Drafts payable	\$ 7,488,000	\$ 8,668,000
Accounts payable and accrued expenses	3,648,000	2,417,000
Payable to Participants:		
On settlements	21,856,000	8,465,000
On receipt of securities	13,237,000	13,216,000
Dividends and interest received (Note 5)	34,274,000	24,753,000
Payable to affiliates	1,177,000	1,067,000
Obligations under capital leases, including \$1,092,000 in 1978 and \$702,000 in 1977 due within one year (Note 7)	6,237,000	4,463,000
	<u>87,917,000</u>	<u>63,049,000</u>
Participants Fund (Note 3):		
Deposits received	3,578,000	3,045,000
Contributions callable on demand	70,658,000	47,391,000
	<u>74,236,000</u>	<u>50,436,000</u>
Stockholders' equity:		
Capital stock—authorized, issued and outstanding, 18,500 shares of \$100 par value	1,850,000	1,850,000
Surplus	492,000	489,000
Undivided profits	1,423,000	1,404,000
	<u>3,765,000</u>	<u>3,743,000</u>
	<u>\$165,918,000</u>	<u>\$117,228,000</u>

**Statement of Revenues and Expenses and Undivided Profits**

	For the years ended December 31,	
	1978	1977
<b>Revenues:</b>		
Services to Participants (Note 4)	\$37,910,000	\$31,198,000
Less—Refund to Participants (Note 2)	4,700,000	1,200,000
	<u>33,210,000</u>	<u>29,998,000</u>
Services to affiliates (Note 4)	658,000	564,000
Interest income	6,261,000	2,780,000
	<u>40,129,000</u>	<u>33,342,000</u>
<b>Expenses:</b>		
Employee costs	23,451,000	18,923,000
Rent, maintenance and utilities	3,361,000	2,947,000
Data processing rentals and supplies	3,002,000	2,655,000
Charges from affiliates (Note 4)	2,671,000	2,229,000
Amortization and interest on capital leases (Note 7)	1,111,000	1,073,000
Other expenses (Note 6)	6,511,000	5,508,000
	<u>40,107,000</u>	<u>33,335,000</u>
<b>Excess of revenues over expenses and refund</b>		
	22,000	7,000
Undivided profits, beginning of year	1,404,000	1,397,000
Transfer to surplus	(3,000)	
<b>Undivided profits, end of year</b>	<u>\$ 1,423,000</u>	<u>\$ 1,404,000</u>

Certain amounts for 1977 have been reclassified for comparative purposes.

**Statement of Changes in Financial Position**

	For the years ended December 31,	
	1978	1977
<b>Financial resources were provided by:</b>		
Operations:		
Excess of revenues over expenses and refund	\$ 22,000	\$ 7,000
Noncash charges included in expenses—		
Depreciation	408,000	338,000
Amortization on capital leases	685,000	626,000
Other operating items, net	270,000	216,000
Resources provided from operations	1,385,000	1,187,000
Increase in payable to Participants	22,933,000	13,539,000
Capital lease obligations incurred	2,512,000	281,000
Increase in accounts payable and accrued expenses	1,136,000	228,000
Increase in cash contributions to Participants Fund	533,000	232,000
Increase in payable to affiliates	110,000	106,000
Decrease in receivable from affiliates	64,000	1,228,000
	<u>28,673,000</u>	<u>16,801,000</u>
<b>Financial resources were used for:</b>		
Increase (decrease) in receivable from Participants	5,569,000	(909,000)
Additions to leased property under capital leases	2,512,000	281,000
Increase in dividends, interest and other receivables	1,608,000	1,922,000
Purchases of equipment and leasehold improvements	747,000	558,000
Capital lease payments	738,000	640,000
Decrease in drafts payable	1,180,000	5,663,000
Other, net	387,000	(127,000)
	<u>12,741,000</u>	<u>8,028,000</u>
Net increase in cash, repurchase agreements and U.S. Government securities during the year	15,932,000	8,773,000
Cash, repurchase agreements and U.S. Government securities, beginning of year	53,053,000	44,280,000
Cash, repurchase agreements and U.S. Government securities, end of year	<u>\$68,985,000</u>	<u>\$53,053,000</u>

Certain amounts for 1977 have been reclassified for comparative purposes.

## Notes to Financial Statements

DECEMBER 31, 1978

### Note 1—Summary of Significant Accounting Policies

#### (a) Securities on deposit

Securities held by the Company for Participants, which aggregated approximately 6.9 billion share units (\$196 billion at market value) at December 31, 1978 and 5.0 billion share units (\$139 billion at market value) at December 31, 1977, are not recorded in the accompanying financial statements. Cash dividends and interest received or due on such securities and in process of distribution or awaiting claim are recorded in the statement of condition.

#### (b) Equipment and leasehold improvements

Equipment and leasehold improvements are recorded at cost. Equipment is depreciated over estimated useful lives (generally eight years), principally on the sum of the years-digits method. Leasehold improvements are amortized over the life of the related lease in equal annual instalments.

#### (c) Leases

Leased property under capital leases, principally data processing equipment and related facilities, is amortized on a straight-line basis over the lease term and interest expense is accrued on the basis of the outstanding lease obligation.

#### (d) Pension plan

The Company's eligible employees are included in the pension plan of New York Stock Exchange, Inc. and its subsidiary companies. Pension costs charged to expense and paid to New York Stock Exchange, Inc. in 1978 for funding were \$914,000 (1977—\$846,000) and comprise normal costs and amortization over ten years of unfunded prior service costs. The value of the assets of the pension plan of New York Stock Exchange, Inc. at December 31, 1977 (the latest valuation date) exceeded the vested liability thereof.

#### (e) Marketable securities

Repurchase agreements represent U.S. Government and U.S. Government Agency securities purchased under agreements to resell at current prices, generally over periods of three days or less. These agreements are recorded at

cost and interest is accrued as earned. U.S. Government securities are recorded at amortized cost, which approximates market value.

#### (f) Income taxes

Provision is made for income taxes applicable to revenues and expenses reported in the financial statements in periods which differ from those in which they are subject to taxation. Investment tax credits on property acquired and leased are applied as a reduction of the income tax provision when the property is placed in service.

#### (g) Surplus

Transfers to surplus of 10% of excess of revenues over expenses and refund will be made annually until such time as surplus equals 65% of capital stock as required by the New York State Banking Law.

### Note 2—Organization and Ownership

The Company is a limited purpose trust company providing central securities depository and related services to the securities, banking and related industries. At December 31, 1978, New York Stock Exchange, Inc. owned approximately 46% of the capital stock of the Company, with the remainder owned by certain Participants or their representatives. A Stockholders Agreement provides for an annual reallocation of the entitlement to purchase outstanding capital stock by eligible Participants or their representatives based on relative depository activity of Participants during the prior year.

Pursuant to a policy adopted by the Board of Directors in 1975, the Company does not pay dividends to stockholders, but refunds to its Participants each year revenues in excess of current needs. In addition, an agreement with New York Stock Exchange, Inc. prior to the adoption of this policy (see Note 4) precludes payment of cash dividends in any year until June 30, 1983 in excess of 6% of stockholders' equity as at the close of the preceding year.

### Note 3—Participants Fund

Participants in the depository are required to contribute to the Participants

Fund amounts which relate to their activity in the depository. The Fund is available to secure the Participants' obligations to the Company, and certain uninsured losses, if such should occur, could be charged to the Fund. Required contributions are received in cash or are callable on demand and secured by securities of the United States or instrumentalities of the United States, states and political subdivisions and certain eligible nonconvertible registered corporate debt securities.

**Note 4—Transactions with Affiliates**

The Company is party to an agreement to purchase software and software related improvements from New York Stock Exchange, Inc. The terms of the agreement provide for the Company to pay 6.5% of its gross revenues from services during the period January 1, 1976 to June 30, 1983, up to a maximum payment of \$13,500,000. Amounts due, which totaled \$2,441,000 in 1978 (1977—\$2,014,000) are determined monthly and paid quarterly over the period of the agreement. Through December 31, 1978, \$6,417,000 has been recorded with respect to such agreement, leaving a maximum remaining payment of \$7,083,000.

Revenues from Participants (net of refund) for 1978 include \$3,812,000 (1977—\$4,281,000) received from National Securities Clearing Corporation, an affiliate of New York Stock Exchange, Inc. Of this amount, \$3,415,000 (1977—\$3,877,000) was for services related to continuous net settlement deliveries and \$397,000 (1977—\$404,000) was for various other securities processing services. Additionally, for certain clerical services, the Company received \$268,000 (1977—\$270,000) from National Securities Clearing Corporation.

**Note 5—Dividends and Interest on Securities on Deposit**

The Company receives cash and stock dividends and interest on securities registered in the name of its nominee which it distributes to the owners of the

securities. Amounts received on securities withdrawn before the record date but not transferred from the name of the Company's nominee cannot be distributed unless claimed by the owner of the security. At December 31, 1978, cash dividends and interest payable and unclaimed amounted to \$34,274,000 and stock dividends payable and unclaimed (which are not recorded in the accompanying financial statements) totaled \$12,947,000 at market value, representing amounts received by the Company since July 1, 1975. Unclaimed dividends received prior to July 1, 1975 have been transferred to New York State in accordance with abandoned property laws. Cash dividends and interest receivable at December 31, 1978 amounted to \$7,320,000 and have been reduced by allowances of \$470,000 for possible losses. Stock dividends receivable (which are not recorded in the accompanying financial statements) amounted to \$6,995,000 at market value and an accrual of \$205,000 has been established for estimated losses on such receivables.

**Note 6—Income Taxes**

Income taxes are included with other expenses. The net income tax provision (benefit) for 1978 and 1977 is summarized as follows:

	1978	1977
Current:		
Federal	\$104,000	\$94,000
Investment tax credits	(62,000)	(48,000)
New jobs credit	(60,000)	
State and local	48,000	49,000
Deferred	(35,000)	(88,000)
	<u>(\$ 5,000)</u>	<u>\$ 7,000</u>

At December 31, 1978, the Company has available for federal income tax purposes investment tax credit carry-forwards of \$138,000, of which \$25,000 expires in 1984 and \$113,000 in 1985 and a new jobs credit carry-forward of \$40,000 which expires in 1985.

## Note 7—Leases and Other Commitments

Capital leases—See Note 1 regarding the treatment of capital leases. The following is a schedule by year of future minimum lease payments under capital leases, together with the present value of the net minimum lease payments as of December 31, 1978:

Year ending December 31:	
1979	\$1,640,000
1980	1,640,000
1981	1,323,000
1982	1,234,000
1983	992,000
1984-1987	<u>1,221,000</u>
Total minimum lease payments	8,050,000
Less—Amount representing interest	<u>1,813,000</u>
Present value of net minimum lease payments (including current instalments of \$1,092,000)	<u><u>\$6,237,000</u></u>

Operating leases—The Company leases improved office space, substantially all of which as a subtenant of New York Stock Exchange, Inc., and certain data processing equipment which are accounted for as operating leases. The leases for office space provide for base rentals and escalations, plus increases in rental escalations subsequent to 1978. Presented below are the future minimum rental payments required under operating leases having initial noncancellable lease terms in excess of one year as of December 31, 1978:

Year ending December 31:	Data processing equipment	Office space	Total
1979	\$ 559,000	\$ 2,817,000	\$ 3,376,000
1980	559,000	2,817,000	3,376,000
1981	559,000	2,817,000	3,376,000
1982		2,817,000	2,817,000
1983		2,724,000	2,724,000
1984-1988		<u>8,982,000</u>	<u>8,982,000</u>
Total minimum payments required	<u>\$1,677,000</u>	<u>\$22,974,000</u>	<u>\$24,651,000</u>

Rent expense in 1978 was \$2,476,000 (1977—\$2,308,000) for office space and \$2,035,000 (1977—\$1,865,000) for data processing equipment.

See Note 4 for the commitment under the software purchase agreement.

## Participants†

### Banks (61)

Bank of New York (The)  
Bankers Trust Company  
Bank of Tokyo Trust Company (The)  
Boston Safe Deposit and Trust Company  
Bradford Trust Company  
Brown Brothers Harriman and Co.  
Central National Bank of Richmond (The)  
Chase Manhattan Bank, N.A. (The)  
Chemical Bank  
Citibank, N.A.  
Citizens and Southern National Bank (The)  
Citizens and Southern National Bank of South Carolina (The)  
Cleveland Trust Company (The)  
Connecticut Bank and Trust Company (The)  
Equitable Trust Company (The)  
Fidelity Bank (The)  
Fidelity Union Trust Company  
Fiduciary Trust Company of New York  
First-City National Bank of Binghamton, N.Y.  
First & Merchants National Bank  
First Jersey National Bank  
First Kentucky Trust Company (The)  
First National Bank in Dallas  
First National Bank in Palm Beach  
First National Bank in St. Louis  
First National Bank of Atlanta (The)  
First National Bank of Birmingham  
First National Bank of Boston (The)  
First National Bank of Maryland (The)  
First Pennsylvania Bank, N.A.  
First Union National Bank of North Carolina  
Hartford National Bank and Trust Company  
Indiana National Bank (The)  
Industrial National Bank of Rhode Island  
Irving Trust Company  
Lincoln First Bank of Rochester  
Manufacturers Hanover Trust Company  
Manufacturers and Traders Trust Company  
Marine Midland Bank  
M&I Marshall & Ilsley Bank  
Mellon Bank, N.A.  
Mercantile-Safe Deposit and Trust Company  
Merchants National Bank & Trust Company of Indianapolis  
Michigan National Bank

Morgan Guaranty Trust Company of New York  
National Bank of Australasia Limited (The), New York Agency  
National Bank of Detroit  
National Bank of North America  
National Westminster Bank Limited  
New England Merchants National Bank  
Northwestern National Bank of Minneapolis  
Riggs National Bank of Washington, D.C. (The)  
Shawmut Bank of Boston, N.A.  
State Street Bank and Trust Company  
Swiss Bank Corporation—New York Branch  
Toledo Trust Company (The)  
United Bank of Denver, National Association  
United States Trust Company of New York  
Wachovia Bank and Trust Company, N.A.  
Wells Fargo Bank, National Association  
Zions First National Bank

### Broker-Dealers (238)

ABD Securities Corporation  
Adler, Coleman & Co.  
Advest, Inc.  
Allen & Company, Incorporated\*  
American Securities Corporation  
Amswiss International Corp.\*  
Anderson & Strudwick, Incorporated\*  
Arnhold & S. Bleichroeder, Inc.  
Asiel & Co.  
Atlantic Capital Corporation  
Bache Halsey Stuart Shields Incorporated  
Bacon, Whipple & Co.  
Baird, Patrick & Co., Inc.  
Bear, Stearns & Co.  
Beauchamp & Co.  
Becker (A.G.) Incorporated  
Bell & Beckwith  
Bellamah, Neuhauser & Barrett, Inc.\*  
Benton, Tompane & Co.  
Bernstein (Sanford C.) & Co., Inc.  
Blair (William) & Company  
Blunt Ellis & Loewi Incorporated  
Blyth Eastman Dillon & Co. Incorporated  
Boesky (Ivan F.) and Co.  
Boettcher & Company  
BOSECO, Inc.  
Bradford (J.C.) & Co.  
Branch, Cabell & Co.

†As of December 31, 1978

\*NSCC Sponsored Account



Brown (Alex.) & Sons  
 Bruns, Nordeman, Rea & Co.  
 Burgess & Leith Incorporated  
 Burns Fry and Timmins Inc.  
 Burns, Pauli & Co., Inc.\*

Cantor (S.B.) & Co., Inc.\*  
 Carmcley Corporation  
 Carr Securities Corporation  
 Carr & Thompson, Inc.\*  
 Cartwright (L.) & Co.\*  
 Chicago Corporation (The)  
 Christopher (B.C.) & Company  
 Colin, Hochstin & Co.  
 Conklin, Cahill & Co.  
 Conning & Co.  
 Cowen & Co.  
 Craig-Hallum, Inc.

Dain, Kalman & Quail, Incorporated  
 Daiwa Securities America, Inc.  
 Davenport & Co. of Virginia, Inc.  
 Davis (Shelby Cullom) & Co.  
 de Cordova, Cooper & Co.  
 DEFCO Securities, Inc.\*  
 Deltec Securities Corporation\*  
 Dexter Securities Corporation  
 Dillon, Read & Co. Inc.  
 Doft & Co., Inc.  
 Dominick Investor Services Corporation  
 Donaldson, Lufkin & Jenrette Securities Corporation  
 Drexel Burnham Lambert Incorporated  
 Dritz, Goldring, Wohleisch & Co.  
 Drysdale Securities Corporation

Easton & Co.  
 Eberstadt (F.) & Co., Inc.  
 Edwards (A.G.) & Sons, Inc.  
 Einhorn & Co.  
 Engler & Budd Company\*  
 Eppler, Guerin & Turner, Inc.  
 Equity Securities Trading Co., Inc.\*  
 Ernst & Co.  
 EuroPartners Securities Corp.  
 Evans & Co., Inc.  
 Execution Services Incorporated

Fagenson & Co., Inc.  
 Fahnestock & Co.  
 Ferris & Company, Incorporated\*  
 Financial America Securities, Inc.\*  
 First Albany Corporation  
 First Boston Corporation (The)

First Jersey Securities, Inc.  
 First Manhattan Co.  
 First Southwest Company  
 First Wall Street Settlement Corporation  
 Folger Nolan Fleming Douglas, Inc.\*  
 Foster & Marshall Inc.  
 Fowler & Rosenau  
 Frances (E.G.) Co., Inc.  
 Frank (Walter N.) & Co.  
 Frankel (Wm. V.) & Co., Inc.\*  
 Freehling & Co.  
 Fried (Albert) & Co.

Gintel & Co.  
 Goldberg Securities  
 Goldman, Sachs & Co.  
 Goldstein (M.E.) & Co., Inc.  
 Gowell Securities Corp.\*  
 Gradison & Company Incorporated  
 Granger & Company  
 Gruntal & Co.  
 Gruss (Oscar) & Son Incorporated

Haupt, Andrews, Fraiman & Hug  
 Hawthorne Securities Corporation\*  
 Henderson Brothers, Inc.  
 Henderson, Harrison & Co.  
 Herzfeld & Stern  
 Herzog, Heine, Geduld, Inc.  
 Hill, Thompson, Magid & Co., Inc\*  
 Hilliard (J.J.B.), Lyons (W.L.), Inc.  
 Hirshon, Roth & Co.  
 Howard, Weil, Labouisse, Friedrichs Incorporated  
 Hudson (R.S.) & Co., Inc.\*  
 Hummer (Wayne) & Co.  
 Hutton (E.F.) & Company Inc.

Icahn & Co., Inc.  
 Illinois Company Incorporated (The)  
 Ingalls & Snyder  
 Institutional Equity Corporation  
 Interstate Securities Corporation

Jacobson (Benjamin) & Sons  
 Janney Montgomery Scott Inc.  
 Jefferies & Company, Inc.  
 Jones (Edward D.) & Co.  
 Josephthal & Co. Incorporated

Kalb, Voorhis & Co.  
 Kaufmann, Alsborg & Co.  
 Kidder, Peabody & Co. Incorporated  
 Kingsley, Boye & Southwood, Inc.  
 Krieger (Henry) & Co.

\*NSCC Sponsored Account

La Branche & Co.  
 Laidlaw Adams & Peck Inc.  
 Lasker, Stone & Stern  
 Lawrence (Cyrus J.) Incorporated  
 Lawrence, O'Donnell & Co.  
 Lazard Frères & Co.  
 Lenart, McHugh & Co.  
 Lewco Securities Corp.  
  
 Mabon, Nugent & Co.  
 Madoff (Bernard L.)  
 Manley, Bennett, McDonald & Co.  
 Marcus Schloss & Co., Inc.  
 Marks (Carl) & Co., Inc.  
 Masten (A.E.) & Co., Incorporated  
 May, Cullum, Ragland & Brittain, Inc.\*  
 Mayer & Schweitzer, Inc.  
 McDonald & Company  
 Meehan (M.J.) & Company  
 Merrill Lynch, Pierce, Fenner & Smith  
 Incorporated  
 Mesirow & Company  
 MidSouthwest Securities, Inc.  
 Mitchel, Schreiber, Watts & Co., Inc.  
 Mitchum, Jones & Templeton, Inc.  
 MKI Securities Corp.  
 Montgomery Securities  
 Moore, Leonard & Lynch, Incorporated  
 Moore & Schley, Cameron & Co.  
 Morgan Keegan & Company, Inc.  
 Morgan, Olmstead, Kennedy & Gardner,  
 Incorporated  
 Morgan Stanley & Co. Incorporated  
 Muir (John) & Co.  
 Muller & Company  
 Murphey, Marseilles & Smith  
 Murphy & Durieu  
  
 Neuberger & Berman  
 Newhard, Cook & Co. Incorporated  
 Nick (J.F.) & Co.  
 Nomura Securities International, Inc.  
 Norris & Hirschberg, Inc.\*  
  
 Oppenheimer & Co., Inc.  
  
 Paine, Webber, Jackson & Curtis  
 Incorporated  
 Parker, Weissenborn & Moynahan, Inc.\*  
 Pasternack Securities  
 Pforzheimer (Carl H.) & Co.  
 Piper, Jaffray & Hopwood, Incorporated  
 Pitfield, Mackay & Co., Inc.\*  
 Prescott, Ball & Turben  
 Purcell, Graham & Co., Inc.  
  
 Quinn (E.J.) & Co., Inc.\*  
  
 Rauscher Pierce Refsnes Corporation  
 Raymond, James & Associates, Inc.  
 Reaves (W.H.) & Co., Inc.  
 Regis Management Corporation  
 Reich & Co., Inc.  
 Rice Securities, Inc.  
 Richardson Securities, Inc.  
 Riviere Securities Corporation\*  
 Robb, Peck, McCooney & Co., Inc.  
 Robertson, Colman, Stephens & Woodman  
 Robinson-Humphrey Company, Inc. (The)  
 Rodman & Renshaw, Inc.  
 Roney (Wm. C.) & Company  
 Rotan Mosle Inc.  
 Rothschild (L.F.), Unterberg, Towbin  
 Roulston and Company, Inc.  
 Rowland (R.) & Co., Incorporated  
 Ryan (John J.) & Co.\*  
  
 Sade & Co.  
 Salomon Brothers  
 Schapiro (M.A.) Co., Inc.  
 Scherck, Stein & Franc, Inc.\*  
 Securities Settlement Corporation  
 Seligman (J. & W.) & Co.  
 Shaine (H.B.) & Co., Inc.  
 Shearson Hayden Stone Inc.  
 Simon (I.M.) & Co.  
 Smith Barney, Harris Upham & Co.,  
 Incorporated  
 Smith (E.H.) Jacobs & Co.\*  
 Spear, Leeds & Kellogg  
 Steichen (R.J.) & Company\*  
 Stern & Kennedy  
 Stern, Lauer & Co.  
 Sterne, Agee & Leach, Inc.  
 Stifel, Nicolaus & Company Incorporated  
 Stillman, Maynard & Co.  
 Stix & Co., Inc.\*  
 Stokes, Hoyt & Co.  
 Streicher (J.) & Co.  
 Stuart Brothers  
 Suez American Corporation\*  
 Sutro & Co. Incorporated  
 Swiss American Securities Inc.  
  
 Thomson McKinnon Securities Inc.  
 Tucker, Anthony & Day (R.L.), Inc.  
 Tweedy Browne Clearing Corporation  
  
 Vincent (Burton J.), Chesley & Co.  
 Viner (Edward A.) & Co., Inc.

\*NSCC Sponsored Account

Wagner, Stott & Co.  
 Weber, Hall, Cobb & Caudle, Inc.  
 Wechsler & Krumholz, Inc.\*  
 Weeden & Co.  
 Weiss, Peck & Greer  
 Wellington & Co.  
 Westminster Securities Corporation  
 Wheat, First Securities, Inc.  
 Whitney (H.N.), Goadby & Co.  
 Wien (M.S.) & Co., Inc.  
 Williams (Jerry), Inc.\*  
 Witter (Dean) Reynolds Inc.  
 Wood Gundy Incorporated  
 Wreszin, Prosser, Romano & Co.  
  
 Yamaichi International (America), Inc.

**Clearing Agencies (6)**

Midwest Securities Trust Company  
 National Securities Clearing Corporation  
 New England Securities Depository Trust  
 Company  
 Options Clearing Corporation (The)  
 Pacific Securities Depository Trust  
 Company  
 Stock Clearing Corporation of  
 Philadelphia

**Depository  
 Facilities†**

*Atlanta, Georgia*  
 Citizens and Southern National Bank  
 (The)  
 First National Bank of Atlanta (The)  
*Baltimore, Maryland*  
 First National Bank of Maryland (The)  
*Birmingham, Alabama*  
 First National Bank of Birmingham  
*Boston, Massachusetts*  
 New England Securities Depository  
 Trust Company  
 Shawmut Bank of Boston, N.A.  
 State Street Bank and Trust Company  
*Charlotte, North Carolina*  
 First Union National Bank of  
 North Carolina  
*Cleveland, Ohio*  
 Cleveland Trust Company (The)

*Dallas, Texas*  
 First National Bank in Dallas  
 Republic National Bank of Dallas  
*Denver, Colorado*  
 United Bank of Denver, National  
 Association  
*Hartford, Connecticut*  
 Connecticut Bank and Trust Company  
 (The)  
 Hartford National Bank and Trust  
 Company  
*Houston, Texas*  
 Houston National Bank  
*Indianapolis, Indiana*  
 Merchants National Bank & Trust  
 Company of Indianapolis  
*Jersey City, New Jersey*  
 First Jersey National Bank  
*Los Angeles, California*  
 American City Bank  
 Wells Fargo Bank, National Association  
*Louisville, Kentucky*  
 Citizens Fidelity Bank & Trust Company  
 First Kentucky Trust Company (The)  
*Milwaukee, Wisconsin*  
 First Wisconsin Trust Company  
*Minneapolis, Minnesota*  
 First National Bank of Minneapolis  
 Northwestern National Bank of  
 Minneapolis  
*Nashville, Tennessee*  
 United American Bank  
*Philadelphia, Pennsylvania*  
 First Pennsylvania Bank, N.A.  
 Provident National Bank  
*Pittsburgh, Pennsylvania*  
 Mellon Bank, N.A.  
*Providence, Rhode Island*  
 Industrial National Bank of Rhode  
 Island  
*Richmond, Virginia*  
 First & Merchants National Bank  
*Rochester, New York*  
 Lincoln First Bank of Rochester  
*St. Louis, Missouri*  
 First National Bank in St. Louis  
 Mercantile Trust Company National  
 Association  
*San Francisco, California*  
 Wells Fargo Bank, National Association

†As of December 31, 1978

\*NSCC Sponsored Account

## Pledgeest†

Algemene Bank Nederland N.V., New York Branch  
Amalgamated Bank of New York (The)  
American Security and Trust Company, N.A.  
Arizona Bank (The)  
Banco Urquijo, S.A.—New York Agency  
Bank Leumi Trust Company of New York  
Bank of America N.T. & S.A.  
Bank of California N.A. (The)  
Bank of New York (The)  
Bank of Nova Scotia (The)  
Bank of Oklahoma, N.A.  
Bank of Tokyo Trust Company (The)  
Bankers Trust Company  
Barclays Bank International Limited  
Boatmen's National Bank of St. Louis (The)  
Bradford Trust Company  
Brown Brothers Harriman & Co.  
California First Bank  
Canadian Imperial Bank of Commerce  
Central National Bank of Cleveland  
Chase Manhattan Bank, N.A. (The)  
Chemical Bank  
Citibank, N.A.  
Citizens Fidelity Bank and Trust Company  
Cleveland Trust Company (The)  
Connecticut Bank and Trust Company (The)  
Continental Illinois National Bank and Trust Company of Chicago  
Credit Lyonnais, New York Branch  
Credito Italiano  
Crocker National Bank  
Daiwa Bank Limited (The), New York Agency  
Detroit Bank & Trust Company (The)  
Equitable Trust Company (The)  
European-American Bank & Trust Company  
Fidelity Bank (The)  
First & Merchants National Bank  
First Jersey National Bank  
First National Bank and Trust Company of Oklahoma City  
First National Bank in Dallas  
First National Bank in St. Louis  
First National Bank of Arizona  
First National Bank of Atlanta (The)  
First National Bank of Chicago (The)  
First National Bank of Louisville  
First National Bank of Maryland (The)  
First National Bank of Minneapolis  
First Pennsylvania Bank, N.A.  
First Union National Bank of North Carolina  
Fuji Bank and Trust Company (The)  
Harris Trust and Savings Bank  
Hartford National Bank and Trust Company  
Houston National Bank  
Irving Trust Company  
Israel Discount Bank Limited  
Lincoln First Bank of Rochester  
Manufacturers Hanover Trust Company  
Manufacturers National Bank of Detroit  
Marine Midland Bank  
Maryland National Bank  
Mellon Bank, N.A.  
Mercantile-Safe Deposit and Trust Company  
Mercantile Trust Company National Association  
Merchants National Bank & Trust Company of Indianapolis  
Midlantic National Bank  
Morgan Guaranty Trust Company of New York  
National Bank of Detroit  
National Bank of North America  
North Carolina National Bank  
Northern Trust Company (The)  
Pittsburgh National Bank  
Provident National Bank  
Republic National Bank of Dallas  
Royal Bank of Canada (The), New York Agency  
Seattle First National Bank  
Security Pacific National Bank  
Shawmut Bank of Boston, N.A.  
State Bank of India—New York Branch  
State Street Bank and Trust Company  
Swiss Bank Corporation, New York Branch  
Swiss Credit Bank  
Texas Commerce Bank National Association  
Toledo Trust Company (The)  
Toronto-Dominion Bank (The)  
Union Bank of Switzerland, New York Branch  
Union First National Bank of Washington  
United Bank of Denver, National Association  
United California Bank  
United States Trust Company of New York  
United Virginia Bank  
Wachovia Bank and Trust Company, N.A.  
Wells Fargo Bank, National Association

†As of December 31, 1978

**Institutions  
Participating Fully  
In the Institutional  
Delivery (ID) System†**

Aetna Encore Fund  
 Aetna Fund Inc.  
 Aetna Income Shares Inc.  
 Aetna Variable Annuity Life Insurance Company  
 Akzona Pension Fund  
 Alaska National Bank of the North  
 Alaska Statebank  
 Allied Chemical Credit  
 American Bank & Trust Co. (Reading, Pennsylvania)  
 Anderson Banking Company  
  
 Bank of Delaware  
 Bank of New York (The)  
 Bank of Tokyo Trust Company (The)  
 Bank Von Ernst & Cie  
 Bankers Trust Company  
 Bankers Trust Directed  
 Bankers Trust of South Carolina  
 Banque Gutzwiller, Kurz, Bungener S.A.  
 Batterymarch Financial Management Corporation  
 Bellingham National Bank  
 Boston Safe Deposit and Trust Co.  
 Bounty Management Corporation  
 Bullock Fund  
  
 Canadian Fund  
 Central National Bank (Richmond, Va.)  
 Chase Manhattan Bank (The)  
 Chase Manhattan Bank (Switzerland)  
 Citibank, N.A.  
 Citizens & Southern National Bank  
 Citizens & Southern National Bank of South Carolina  
 Citizens Fidelity Bank & Trust Company  
 Citytrust (of Bridgeport)  
 Conservest Management Co.  
  
 Den Norske Creditbank  
 Deseret Trust Company  
 Dividend Shares Inc.  
  
 Equitable Life Assurance Society of the United States  
 Equitable Trust Company (Baltimore, Md.)  
  
 Farmers Bank of the State of Delaware  
 Fidelity Bank of Pennsylvania  
 Fidelity Union Trust Company (Newark, N.J.)  
 First City Bank of Dallas  
  
 First-City National Bank of Binghamton, N.Y.  
 First Index Investment Trust, Inc.  
 First International Bank in Houston  
 First Kentucky Trust Co.  
 First National Bank in Dallas  
 First National Bank in Palm Beach  
 First National Bank of Boston (The)  
 First National Bank of Denver (The)  
 First National Bank of Florida  
 First National Bank of Minneapolis (Resource Trust Co. Account)  
 First National Bank of Venice  
 First Union National Bank of North Carolina  
  
 IDS Growth Fund, Inc.  
 IDS Progressive Fund, Inc.  
 Indiana National Bank  
 Industrial National Bank of Rhode Island  
 Investors Stock Fund Inc.  
 Irving Trust Company  
 Ivest Fund Inc.  
  
 Lincoln First Bank of Rochester  
  
 Manufacturers Hanover Trust  
 Marine Midland Bank  
 Massachusetts Capital Development Fund, Inc.  
 Massachusetts Financial Bond Fund  
 Massachusetts Financial Development Fund  
 Massachusetts Income Development Fund, Inc.  
 Massachusetts Investors Growth Stock Fund, Inc.  
 Massachusetts Investors Trust  
 Massachusetts Mutual Life Insurance Company  
 Mechanics Bank of Richmond  
 Mercantile Safe-Deposit & Trust Company (Baltimore, Md.)  
 Merchants First National Bank and Trust Company (of Indianapolis)  
 Monsanto Savings & Investment Plan  
 Monthly Income Shares  
 Morgan (W.L.) Growth Fund, Inc.  
 Morgan Guaranty Trust Company of New York  
  
 Nation-Wide Securities Co.  
 National Bank of Alaska  
 National Bank of Fairfax (The)  
 National Bank of Westchester  
 National Central Bank (Lancaster, Pennsylvania)

†As of December 31, 1978

New England Mutual Life Insurance Company	Summit & Elizabeth Trust Co.
New York Venture Fund, Inc.	Swiss Bank Corporation (New York Branch)
Nomura Securities International, Inc.	Treasurer of the State of North Carolina—Equity
Northeastern Bank of Pennsylvania (Scranton, Pa.)	Trust Company of the West
Northwestern National Bank of Minneapolis	Union Bank of Switzerland (Basle)
Peoples Bank of Lakeland (Lakeland, Florida)	Union Bank of Switzerland (Berne)
Pictet & Cie.	Union Bank of Switzerland (Chiasso)
Prudential Insurance Company of America	Union Bank of Switzerland (Geneva)
Qualified Dividend Portfolio, Inc.	Union Bank of Switzerland (Lausanne)
Qualified Dividend Portfolio II, Inc.	Union Bank of Switzerland (Lugano)
Republic National Bank of Dallas	Union Bank of Switzerland (Zurich)
St. Louis Union Trust Company	Union National Bank of Wichita
Southeast Banks Trust Company	Union Trust Company (New Haven, Conn.)
Southern Methodist University Endowment Fund	United Bank of Denver, N.A.
Southern National Bank of North Carolina (Lumberton, N.C.)	United Jersey Bank
State Street Trust Division	United States Trust Company of New York
	University of Rochester
	Wachovia Bank and Trust Company, N.A.
	Wellington Fund Inc.
	Wells Fargo Bank, National Association
	Wells Fargo—Employee Benefit Division
	Windsor Fund, Inc.

## OFFICERS

**William T. Dentzer, Jr.**  
Chairman and Chief Executive Officer

### **Vice Presidents**

John P. Crowley  
Arnold Fleisig  
William F. Jaenike  
Thomas J. Lee

### **Secretary/Counsel**

Edward J. McGuire, Jr.

### **Assistant Vice Presidents**

Nicholas J. Arrigan  
Robert A. Dick  
Dennis J. Dirks  
Michael Fedorochko  
Charles J. Horstmann  
James V. Reilly  
Nishan G. Vartabedian

### **Comptroller**

Michael A. Agnes

### **Treasurer**

John P. Crowley

### **Auditor**

Thomas F. Coleman

### **Director of Security**

Michael T. Mullen

### **Assistant Secretary**

Donna Grant Reilly

### **Assistant Treasurer**

Leonard A. Miele

## COMMITTEES OF THE BOARD OF DIRECTORS\*

### **Audit Committee**

Joseph A. Vitanza, Chairman  
Benjamin L. Lubin  
Robert B. White

### **Compensation Committee**

John T. Roche, Chairman  
Ross B. Kenzie  
Carl W. Klemme  
John E. Stoddard

### **Nominating Committee**

Robert C. Hall, Chairman  
Joseph A. Rice  
John T. Roche

\*For term beginning March 31, 1978.

## **The Depository Trust Company**

55 Water Street, New York, New York 10041



Chartered as a limited purpose trust company and a Member of the Federal Reserve System