

1986 Annual Report



The Depository Trust Company

*As the front cover suggests, the bicentennial of the U.S. Constitution provides the motif for this year's annual report.*

*The Depository Trust Company, a cooperative owned by the financial industry, serves as a national clearinghouse for the settlement of trades in corporate and municipal securities. DTC also performs securities custodian services for its participating banks and broker-dealers. In 1986, those Participants delivered more than \$8 trillion of securities through the depository's book-entry system, and securities in its custody exceeded \$2.5 trillion at yearend.*

*Depository Trust's primary mission is to reduce the cost of securities services offered to the public by its Participants. It does so through its automated systems, its telecommunications links with more than 500 Participants and others, and its relationships with the hundreds of firms that serve as transfer agents, paying agents, exchange agents, and redemption agents for securities issuers.*



## ***1986 Annual Report***

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## Highlights

	1986	1985
<b>Total for the Year:</b>		
Book-Entry Deliveries		(In Trillions)
Market Value	\$ 8.1	\$ 5.5
		(In Millions)
Number	66.7	55.8
		(In Billions)
Cash Dividend and Interest Payments	\$ 120.7	\$ 95.2
<b>At Yearend:</b>		
Eligible Securities Issues	371,921	262,081
		(In Billions)
Value of Securities on Deposit	\$ 2,547	\$ 2,010
Banks	\$ 1,892	\$ 1,497
Broker-Dealers	\$ 544	\$ 439
Other Depositories	\$ 111	\$ 74
		(In Billions)
Number of Shares on Deposit	70.3	54.5
Banks	32.3	26.6
Broker-Dealers	35.9	26.2
Other Depositories	2.1	1.7
		(In Billions)
Principal Amount of Debt Securities on Deposit	\$ 978.3	\$ 737.3
Banks	\$ 739.9	\$ 550.9
Broker-Dealers	\$ 178.0	\$ 152.5
Other Depositories	\$ 60.4	\$ 33.9
		(In Billions)
Principal Amount of Municipal Bonds on Deposit	\$ 426.3	\$ 306.4
Banks	\$ 319.4	\$ 214.8
Broker-Dealers	\$ 89.7	\$ 83.6
Other Depositories	\$ 17.2	\$ 8.0
Participants	538	522
Broker-Dealers	357	342
Banks	174	173
Clearing Agencies	7	7

## *A Message from Management*

*High stock trading volume and a continuing increase in the number of securities issues eligible for depository services combined to send DTC activity levels to new highs in 1986. Over \$8 trillion of securities was delivered through DTC's books in 1986, more than double the value of such deliveries two years ago, and the number of securities issues eligible for DTC's services at yearend was twice that of 18 months earlier. Updates to Participant accounts at DTC—that is, activities that cause changes in these accounts—offer another window on depository activity; in 1986, these updates averaged 658,600 daily, 17% more than the daily average for 1985.*

*The large expansion in the number of eligible issues—chiefly municipal bonds but over-the-counter securities as well—reflects the wish of DTC users to bring the cost-savings benefits of depository services to bear on more and more trade settlements and securities issues. Investors, the firms that execute their trades, and their custodians all benefit from the efficiency and increased safety thus created.*

*Early in its existence, the depository concentrated on making widely traded equity issues eligible for book-entry settlement to reduce the flow of definitive certificates through "the Street." Corporate debt securities were next to follow, along with an increasing number of over-the-counter equities. Then came emphasis on the timely collection of dividend and interest payments due Participants, a clearing system for institutional trades, more automation of communications to and from Participants and transfer agents, and agreements for DTC to act for users upon their instruction in surrendering securities for reinvestment plans, conversions, mergers, and tenders and exchanges. The success of these efforts to date is a major reason why the securities industry handles high trading volumes so well.*

*In recent years, the extension of depository services to municipal bonds has been emphasized. Now, more than 55% of the principal amount of all municipal bonds outstanding is in DTC's custody. More importantly, trade settlement by book-entry delivery continues to increase, and a rising percentage of all new issues brought to market each year passes through DTC's Underwriting Service for distribution. For 1986, the principal amount of new municipal issues distributed largely through this DTC service exceeded 75% of the value of all new issues in the country. The increasing frequency with which municipal issuers are bringing book-entry-only issues to market—where no certificates are available to investors—is another measure of the municipal bond industry's adaptation to a securities depository environment.*

*We wish to thank the members of DTC's staff, its Participants, and industry committees whose efforts made possible the results recorded in this report and helped to develop a Same-Day Funds Settlement system for inauguration in 1987. In particular, we gratefully acknowledge the support of many industry leaders and groups for DTC's efforts to improve performance and informational standards for itself and others engaged in securities operations. DTC's value to the industry as a change agent for improved securities processing across-the-board can only be as great as their cumulative insight, counsel, and support. These joint efforts continue to hold the promise of more savings and less risk in future years for those concerned with post-trade settlement and the custody functions that follow.*



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



Conrad F. Ahrens  
President and Chief Operating Officer

## *History, Ownership, and Policies*

*The origins of The Depository Trust Company lie in the securities industry's paperwork crisis in the late 1960s, when stock processing problems caused major disruptions in the financial industry. In 1968, the New York Stock Exchange (NYSE) commenced operation of its Central Certificate Service (CCS), a securities depository established to serve NYSE member firms. Pursuant to plans developed by the ad hoc Banking and Securities Industry Committee in 1970–72, DTC was created in early 1973 to acquire the business of CCS and to expand the benefits of the depository approach to others in the financial industry, particularly banks.*

*The initial sale of DTC stock by the NYSE to DTC bank Participants and other self-regulatory organizations representing broker-dealer Participants occurred in 1975, after various state laws restricting depository ownership had been amended. The stockholder base was broadened in 1976, when the NYSE acted to give broker-dealers the right to own DTC stock directly. These actions established the present nature of the depository as an organization owned by its users or their representatives.*

### *The Governance of the Depository*

*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.*

*The right to purchase capital stock of the depository is based on a formula that takes into account each Participant's use of the depository*

*during the preceding calendar year. The calculation of use is based 60% on fees paid to the depository during that year and 40% on the market value of long securities positions in DTC at the end of each month during 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 depository 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 in late March 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 so that no combination of stockholders controlling a simple majority of stock could 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.*

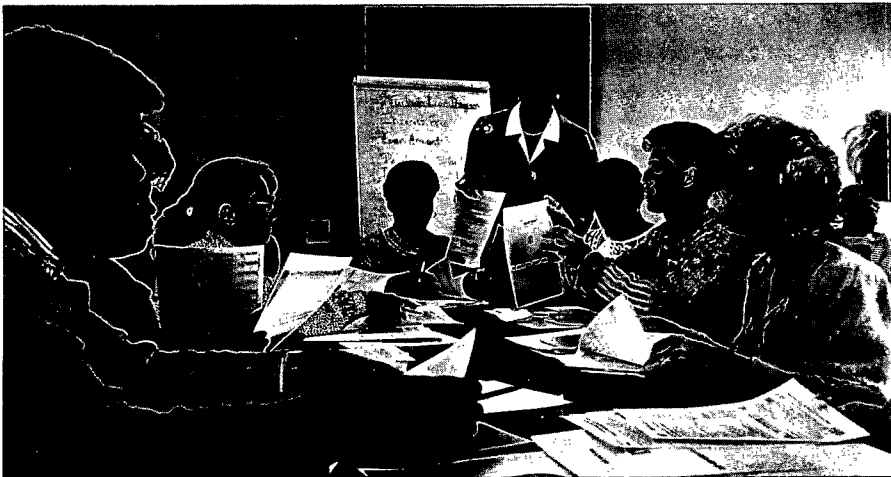
*At the conclusion of the annual reallocation of DTC stock entitlements in March 1986, elections to purchase entitlements increased the number of stockholders to 137, comprising 46 broker-dealers, 86 banks, and five self-regulatory organizations and clearing agencies. The 46 broker-dealer stockholder Participants owned approximately 13.8% of DTC stock. The 86 bank Participants owned approximately 43.7% 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 approximately 33.7% for the NYSE, 4.4% for the American Stock Exchange, and 4.4% for the National Association of Securities Dealers.*



*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 cumulative voting rights. The makeup of the depository's Board of Directors reflects this effort to be, and to remain, responsive to user needs.*

*It is a further policy of DTC to limit profits and to 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.*

*DTC 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 as a New York State limited purpose trust company, DTC is also regulated by the Board of Governors of the Federal Reserve System and the New York State Banking Department.*



*In accordance with its mandate to provide efficient, secure, and accurate post-trade processing services, DTC plans for anticipated increases in issue eligibility and transaction volumes by hiring and training new employees. Here, Joan D. Titus, Employment Recruiter, Human Resources Department, conducts a first-day orientation.*

## *B*asic Services

*Of the various services Depository Trust performs for its Participants, some are basic to its nature and to an understanding of what a securities depository does.*

- It accepts deposits of eligible securities for custody.*
- It executes book-entry deliveries of securities in its custody through accounting entries recorded on its computer files.*
- It records book-entry pledges of securities in its custody through similar accounting entries.*
- It provides for withdrawals of securities from its custody on a routine or an urgent basis.*

*These core services allow a Participant to deposit securities with DTC for safekeeping, deliver or pledge them conveniently to another party on the books of the depository, collect payment from the other party for securities delivered, and obtain certificates for customers who wish to hold them.*

*It is the large number of transactions in these services by Participants that creates the economies of scale that offer low-cost processing and speed to users without sacrifice of security and accuracy. Participants instructed DTC to execute nearly 84.2 million transactions using these services in 1986, up 17% from 71.8 million in 1985.*

*Increasingly, these instructions are in automated form, further reducing labor-intensive work for both Participants and DTC.*

Chart 1

Shares on Deposit from Banks  
(In Billions)

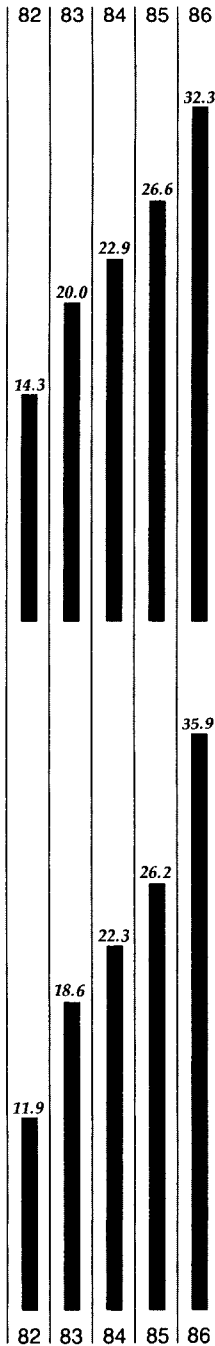


Chart 2

Shares on Deposit from Broker-Dealers  
(In Billions)

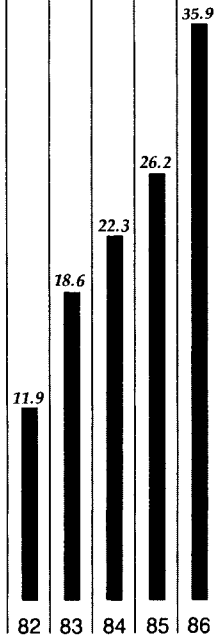


Chart 3

Equity Securities on Deposit  
(In Billions of Shares)

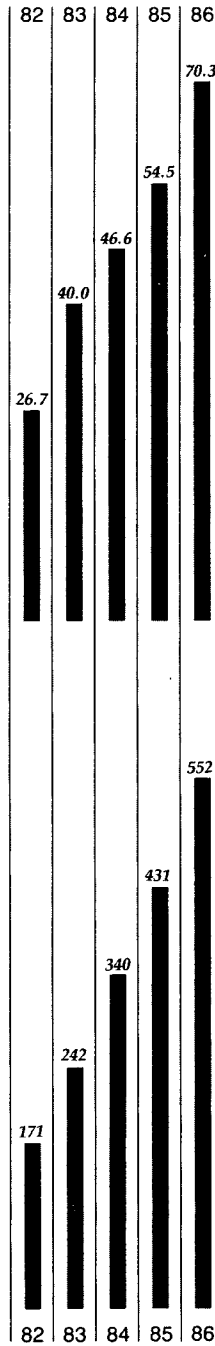
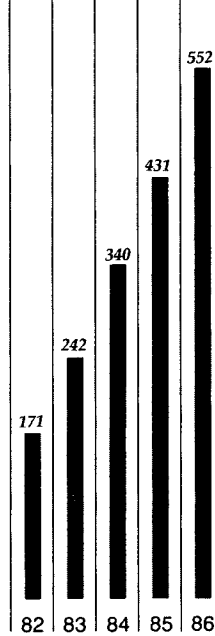


Chart 4

Corporate Debt Securities on Deposit  
(In Billions of Dollars of Principal Amount)



## Deposits

Deposits of certificates can be made in eligible securities issues at DTC's office or at various bank and clearing corporation offices across the country that cooperate as DTC Depository Facilities (see charts 1-5). During 1986, DTC processed a daily average of 27,100 deposits involving 86,600 registered certificates. Bearer municipal bond activity added on average another 2,600 deposits per day of 38,000 certificates.

## Deliveries

Deliveries in the settlement of securities transactions may be with or without an accompanying money payment, depending upon the Participant's instructions. In 1986, DTC processed 66.7 million computerized book-entry deliveries among Participants, including deliveries between brokers and clearing corporations. The value of book-entry deliveries in 1986 was \$8.1 trillion (see chart 6).

## Pledges

Participants may make book-entry pledges of securities on deposit with DTC to banks and other entities that have agreed to accept pledges through DTC as collateral for bank loans, to secure letters of credit, or for other purposes.

At yearend 1986, the value of outstanding pledges totaled \$26.2 billion (see chart 7). This figure includes \$15.4 billion pledged as collateral for bank loans and letters of credit; \$7.9 billion pledged by banks and brokers to The Options Clearing Corporation, primarily to meet collateralization requirements on call option sales; and \$2.9 billion pledged by banks to the Federal Reserve Bank of New York for the potential purpose of securing advances at the discount window and intraday overdrafts. At yearend, 24 of the 98 pledgees participating in this program had over \$100 million each in securities pledged to them.

Chart 5

**Market Value of Securities on Deposit**  
(In Trillions of Dollars)

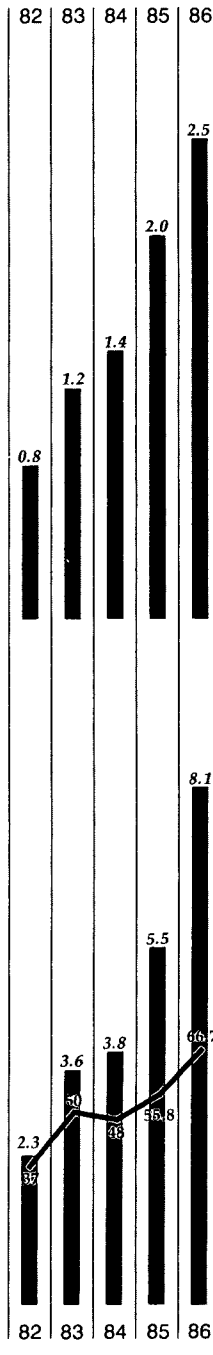


Chart 6

**Value of Book-Entry Deliveries**  
(In Trillions of Dollars)

**Number of Book-Entry Deliveries**  
(In Millions)

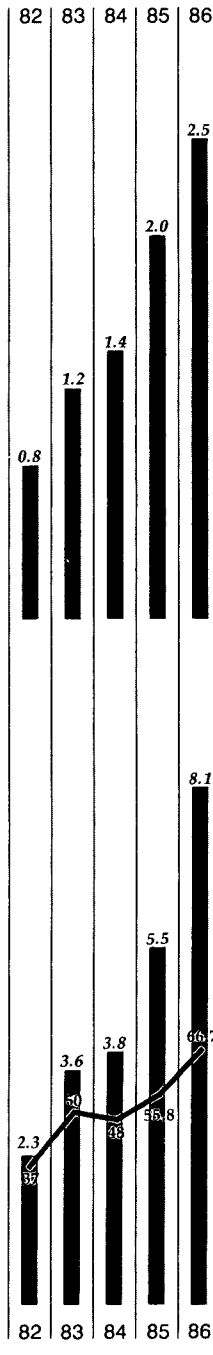


Chart 7

**Value of Outstanding Pledges**  
(In Billions of Dollars at Yearend)

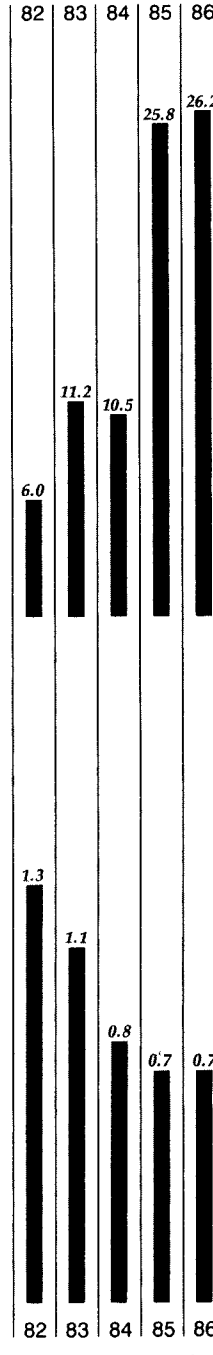
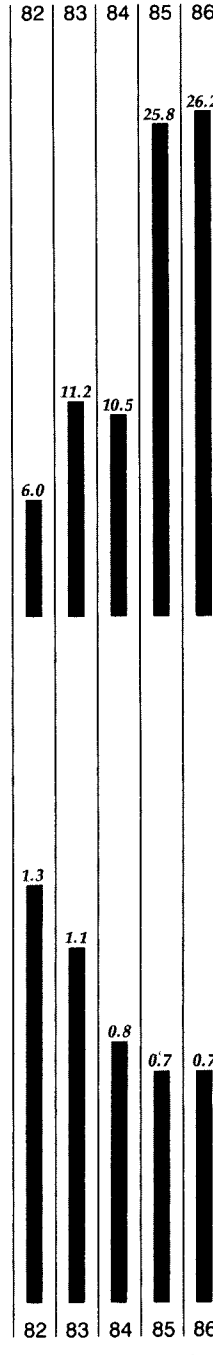


Chart 8

**Urgent COD Withdrawals of Certificates in Registered Issues**  
(In Millions of Withdrawals)



## Certificate Withdrawals

Certificates can be withdrawn from DTC in either of two ways:

- (1) *Withdrawals-by-Transfer (WTs)*, in which certificates registered by transfer agents in the name of a Participant's customer or another party are obtained by DTC based on Participant instructions routed to transfer agents through the depository. Depending on the issue, its transfer agent, and the agent's location, newly registered certificates requested by Participants normally are available to them one to three weeks after DTC has received the WT instructions.
- (2) *Urgent Certificate-on-Demand (COD) withdrawals*, in which registered or bearer certificates usually are released by the depository to requesting Participants within three hours.

In 1986, DTC processed an average of 27,300 WTs daily, leading to the registration of 7.4 million certificates. During the same period, the depository processed an average of 2,800 urgent CODs each day for registered securities, satisfied by about 1.8 million certificates. Bearer municipal bond withdrawals, which are processed as urgent CODs, added to this volume on average another 1,100 CODs each day providing almost 2 million certificates.

Despite the large increase in DTC-eligible issues and trading volume, the total number of CODs for all registered issues has continued to decline. This reflects the industry's increasing use of depository book-entry delivery over physical delivery of certificates (see chart 8).

In recent years, the number of WT instructions and certificates resulting from these instructions has not increased from earlier years despite greater trading volume and eligibility of registered issues (see chart 9).

## Fast Automated Securities Transfer

DTC's Fast Automated Securities Transfer (FAST) program provides an alternative method of processing both types of certificate withdrawals.

Under FAST, 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.

The Withdrawal-by-Transfer portion of the FAST program is designed only for routine withdrawals; agents can fulfill Participant requests for registered certificates within normal transfer turnaround time, usually three business days.

The full FAST program includes urgent COD withdrawals as well as routine WTs.

### Direct Mail Service

This addition to DTC's Withdrawal-by-Transfer service permits Participants to speed the mailing of certificates to their customers or third parties by instructing cooperating transfer agents, or the

depository, to mail newly registered certificates. After receiving registration data by automated means from users, DTC reformats the data and sends them to cooperating transfer agents in machine-readable form. These transfer agents then issue and mail the certificates and return pertinent transaction details to DTC for its records and reporting to Participants. In 1986, 10 FAST transfer agents in this Direct-Mail-by-the-Agent (DMA) program mailed 353,000 new

certificates upon instruction from Participants, usually reducing by several days the time of their receipt. Where Participants wish all such certificates mailed to recipients but not all transfer agents wish to mail them, DTC assumes mailing responsibility. By yearend 1986, DTC had mailed nearly 450,000 certificates under Direct-Mail-by-the-Depository (DMD), almost triple 1985's figure.

In 1986, the number of Direct Mail service users increased from 13 to 29 Participants. DTC also added a function that permits Participants to enter last-minute "withhold" instructions about such certificate mailings, in the event that customers decide to sell their securities. This feature should encourage more Participants to use the Direct Mail service.

### Transfer Timeliness

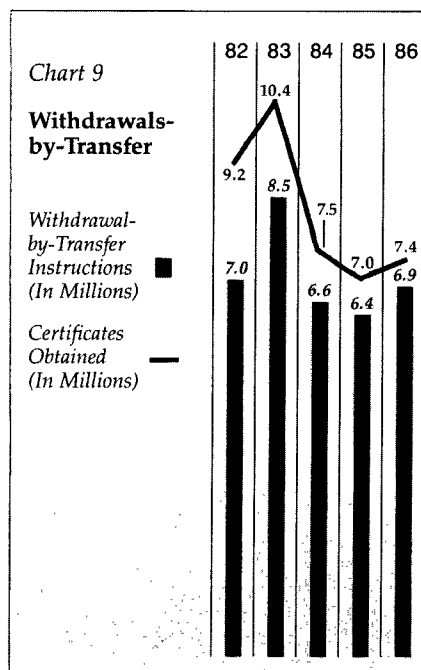
DTC took several steps during 1986 to speed completion of transfer agent action on Withdrawal-by-Transfer instructions submitted through the depository. It also developed a Transfer Timeliness Report to measure more precisely the performance of some 1,500 agents with which it deals.

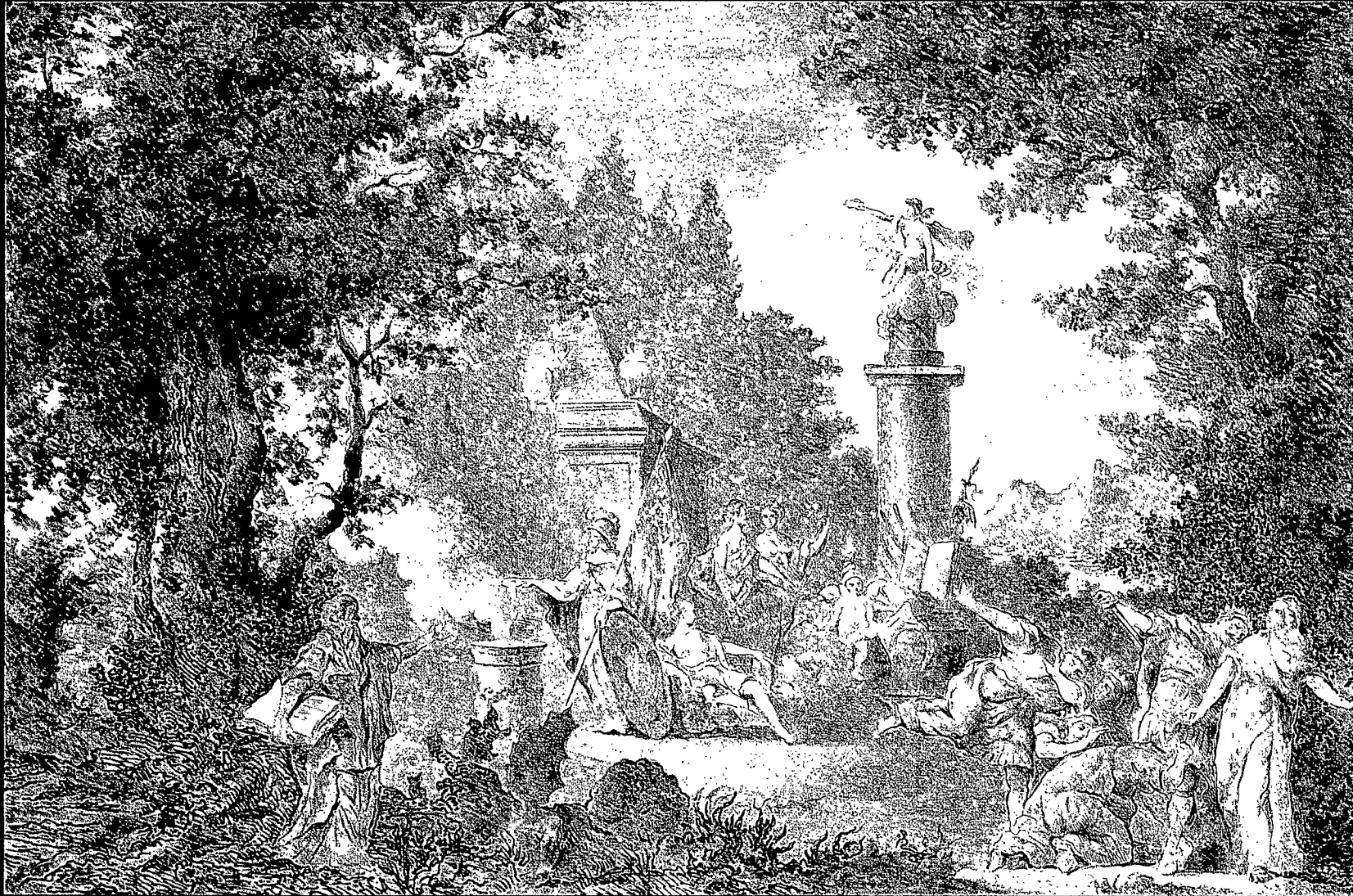
### Eligible Issues

The more issues made eligible for DTC services, the more useful the depository is to its Participants.

The number of issues eligible for DTC services rose to 371,921 by the end of 1986, up 42% from 262,081 at yearend 1985. Of this number, 321,281 were municipal bonds; 157,621 of these municipals were bearer or interchangeable issues, and 163,660 were registered issues; included were 658 custodial receipts or units with associated put options. This large expansion was part of DTC's plan to apply the benefits of book-entry delivery and certificate immobilization to an increasing portion of the securities held by Participants.

The 50,640 corporate, money market, and U.S. government issues eligible at the end of 1986 comprised: 2,833 common and preferred stocks





*Symbols often help develop and synthesize cultures. Their charismatic power lies in an ability to define abstract ideals and virtues that want for a recognizable and effective form.*

*The people of the colonies sought this definition. The personification of America (above) symbolized—by way of the ancient cultures of Greece and Rome—a cluster of ideals...the aspirations of the American Revolution...Freedom, Independence, and Wisdom.*

listed on the New York, American, and other stock exchanges; 14,441 equity issues traded over-the-counter; 10,631 issues of listed and unlisted corporate debt securities; 449 unit issues; 593 warrants; 684 issues represented by American Depositary Receipts; 13,196 unit investment trusts; 7,262 certificates of deposit; and 551 U.S. Treasury and Federal Agency issues.

Investment bankers continued to bring creative new instruments to market in 1986, many with exotic features. DTC's aim is to make as many of these new products as possible eligible for depository services; indeed, some of these securities could not readily be processed without the use of depositories. New securities made eligible in recent years include auction-rate preferred stock and notes, tender-rate preferred stock, municipal bonds insured in the secondary market, municipal bonds with put options added in the secondary market, automobile loan and credit card receivables, foreign currency denominated bonds, and stripped municipal bonds. Many issues of several of these products have been marketed in book-entry-only form (with no certificates available to investors), including the entire 176-issue range of auction-rate and tender-rate preferred stock and notes with a principal amount of almost \$11 billion. If investment bankers consult their operations departments and DTC early enough in the design phase of new securities, chances are good that problems that might otherwise make a new type of issue ineligible for DTC services can be overcome.

## *A*ncillary Services

DTC's ancillary services typically flow out of its custody of securities for Participants. Many of these services are designed to permit the beneficial owners of securities to receive benefits of professional custody conveniently and exercise other rights of ownership easily, while leaving certificates immobilized in the depository. This reduces or eliminates the need for Participants to withdraw certificates in order to process transactions at greater expense outside the depository system.

The most visible of these services are underwriting distributions, dividend and interest collection, provision for voting rights, voluntary offerings, partial redemptions, dividend reinvestment, and conversions. The volume of these and other ancillary services has grown sharply as securities in DTC's custody have grown and as investment bankers have brought to market new types of securities products with special features. To accommodate the latter, DTC has developed facilities to process auction-rate and tender-rate preferred stock and notes, put option bonds, units and custodial receipts evidencing municipal bonds or corporate stock and put options, and custodial receipts for credit-enhanced munis.

Many of these ancillary services are described in the paragraphs that follow.

### **Distribution of Underwritings**

This service for the book-entry distribution of and payment for securities offered in public underwritings and private placements again showed strong annual growth. In 1986, 229 lead managing underwriters used

DTC to distribute \$381.5 billion of 15,745 underwritings representing 67,829 issues (CUSIP numbers). This represents a 60% increase over 1985's 9,817 underwritings and a 31% increase over its total of \$291.3 billion (see chart 10).

### Dividends and Interest

This service removes the operational burden from Participants of collecting dividend and interest payments from many sources. In addition, Participants receive cash dividend and interest payments faster and at less expense through DTC than they could directly.

In 1986, DTC received \$95.9 billion of corporate cash dividends and interest payments for Participants. This represents payments to DTC from approximately 1,200 bank and corporate paying agents. Stock dividends received for Participants amounted to more than 4.2 billion shares. Interest payments related to the depository's Municipal Bond Program totaled \$24.8 billion in 1986 (see chart 11). For the year, DTC received more than 570,000 payments, with over 44,000 on peak days.

The timeliness of corporate cash dividends and interest payments to DTC continued to improve during 1986. For the year, 92% of funds paid to DTC was received on payable dates, and 94% of the value on all payments was received in same-day funds. This increase, new procedures by which DTC allocates incoming payments to Participants' settlement accounts, and better data drawn from paying agents to identify payments with securities issues combined to raise the already high efficiency of this service to Participants.

In regard to municipal bonds, DTC receives virtually all payments on payable dates and credits Participants' settlement accounts on those dates.

Chart 10  
Number of Underwriting Distributions Through DTC  
(In Thousands)

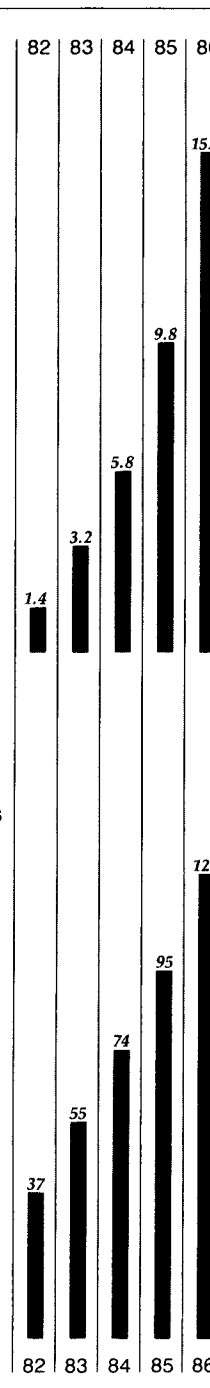


Chart 11  
Cash Dividends and Interest Received for Participants  
(In Billions of Dollars)

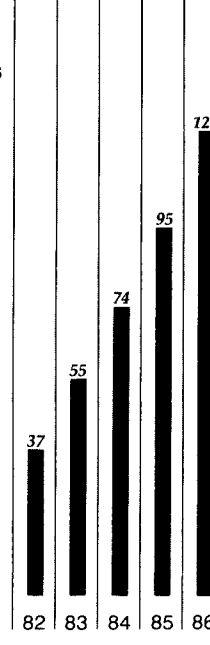


Chart 12  
Tender and Exchange Offers Processed Through DTC

Number of Offers ■  
Value of Acceptances Through DTC (In Billions of Dollars) —

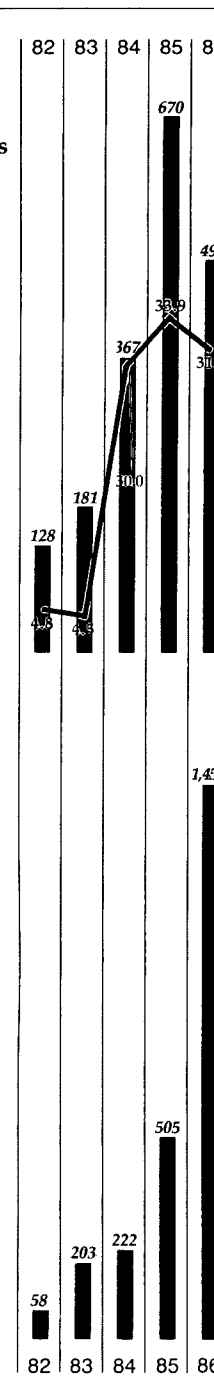
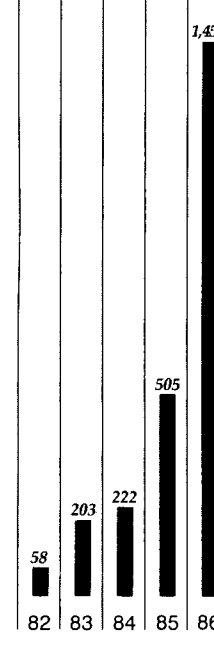


Chart 13  
Corporate Call Lotteries



## Voting Rights

DTC arranges for deposited securities to be registered 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, are counterfeit, or are otherwise not negotiable. 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 retransfer, when necessary, in the simplest and quickest manner possible.
- (3) To permit DTC to allocate dividends, distributions, and voting rights to depositors on a proper and timely basis.

Given these reasons for holding securities in the depository's nominee name, one of DTC's primary objectives has been to avoid being a barrier to communications between issuers and beneficial owners. Indeed, in some cases, the existence of DTC may assist the corporate issuer in keeping up with changes in the ownership of its voting stock. The depository's Security Position Listing Report lists the number of shares of the issue on deposit with DTC itemized by Participant; prior to the existence of the depository, many of the shares now included in this report would have been represented by certificates that might have circulated by endorsement for prolonged periods before being re-registered. The Security Position Listing Report is automatically sent to each issuer, free of charge, once each year, indicating Participant positions as of the record date for the issuer's annual meeting. Issuers may also obtain interim listings on a daily, weekly, monthly, or dividend-record-date basis, on written request and for a modest fee.

DTC's Participant Proxy Contact List specifies the name and address of each DTC Participant, together with the name and telephone number of

the individual responsible for handling proxies there. The Contact List is updated and reprinted four times a year and sent to issuers free of charge.

DTC's Omnibus Proxy provides for the exercise of voting rights and for direct communications between issuers and Participants holding their voting securities. In effect, the Omnibus Proxy is an assignment: Cede & Co., the shareholder of record, assigns to each Participant the voting rights associated with the shares in that Participant's DTC account as of record date. DTC sends the Omnibus Proxy (together with a list identifying the Participant assignees) to the issuer after the record date for the shareholders meeting at which the votes may be cast. At the same time, DTC notifies each shareholder Participant that the Omnibus Proxy has been sent to the issuer and of the number of shares the Participant is entitled to vote.



Andrew M. Massa, Vice President, United States Trust Company of New York (right), and Raymond R. DeCesare, Vice President, DTC, discuss how paying agent identification of dividend and interest payments to DTC by CUSIP number helps assure their swift and accurate transmission to Participants.



Upon completion of these steps—which normally take place in a single day soon after record date—DTC is removed from the chain of communications between issuer and beneficial owners. Each Participant is able to ask the issuer or its agent directly for whatever quantity of proxy material it needs to discharge its obligations to beneficial owners, and each issuer is able to contact Participants directly. These communications occur in the same manner as if DTC did not exist.

The depository's detailed brochure on this subject, Shareholder Communications and The Depository Trust Company, is available on request.

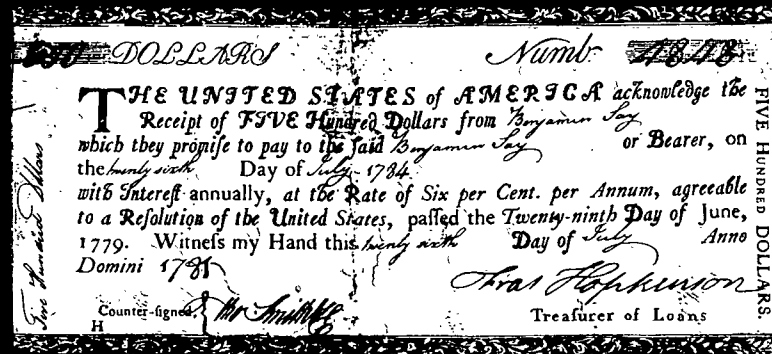
### Voluntary Offerings

DTC offers several services related to voluntary offerings, each designed to keep securities immobilized in the depository during periods when Participants or their customers have the right to surrender them for cash and/or other securities. These services are considered below.

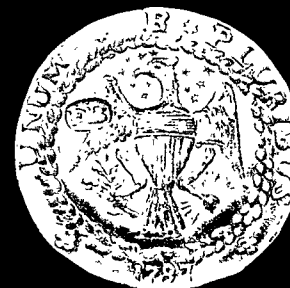
### Tender and Exchange Offers

DTC's service for processing responses to tender and exchange offers eliminates many costs and risks for Participants, including those associated with shipping securities to agents on time and arranging for the return of securities rejected by the agent. Earliest possible receipt of funds also is assured. Moreover, because instructions and securities from banks and broker-dealers to tender agents flow through one centralized point, use of DTC obviates the need for them to deal directly with dozens of agents, including many in remote locations.

As a result of Securities and Exchange Commission Rule 17Ad-14, transfer agents acting on behalf of bidders (as tender agents) are required to establish and maintain special accounts with DTC and any other qualified registered securities depository holding the subject company's securities.



A 6% bond issued by the government to fund the Revolution



1787 Brasher doubloon



1795 half dollar

Owing to persistent inflation, the overabundance of paper money that Congress printed to finance the Revolution proved virtually worthless by the war's end. Accordingly, merchants preferred payment in silver and gold currency.

Unfortunately, under the Articles of Confederation, Congress lacked the power to solve the nation's financial problems. Many realized—to flourish, America required a stronger centralized government.



Twenty dollars/Continental currency

In 1986, DTC processed 490 tender and exchange offers by book-entry, involving 110 agents (see chart 12). These offers included seven in which the book-entry program was used to elect a payment option under a mandatory reorganization plan.

These 490 offers, which generated \$31.6 billion in acceptances through DTC, constituted 86% of the total number of offers that could have been accepted in part by book-entry procedures.

### **Conversions**

DTC conversion procedures allow Participants to use book-entry to surrender convertible debt and equity securities in their depository accounts for same-day credit in the underlying securities, usually common stock. Participant processing expense is thereby reduced, while eliminating the cost of financing transactions during the interval when the certificates would otherwise be at the conversion agent. More than 320 convertible issues are eligible for this service; approximately \$13.2 billion of book-entry securities conversions were completed in 1986, an 83% increase over \$7.2 billion in 1985.

### **Partial Redemptions**

When an issuer calls a portion of an issue held by DTC, the depository conducts an impartial call lottery consistent with industry practice to allocate the called portion among Participants with positions in the issue. DTC redeems the called securities and allocates payment to Participants' settlement accounts. Participants must know the outcome of DTC's lotteries before they can run lotteries for their customers.

Lower interest rates in 1986 stimulated a sharp rise in partial calls, especially of municipal bonds. As a result, DTC ran 1,456 corporate call lotteries by yearend, nearly triple the 505 run in 1985, and 12,656 municipal call lotteries, more than quadruple the 3,047 in 1985 (see charts 13 and 15). These sharp increases, combined with the consequences of missing, late, and incomplete call notices from redemption agents, created processing problems for DTC and other custodians in the latter

half of 1986. Toward the end of the year, however, broad awareness of the problem, improved systems, and leadership by the Securities and Exchange Commission in specifying standards that should be observed by agents in issuing redemption notices improved the outlook for redemption processing in 1987.

### **Redemptions and Maturities of Certificates of Deposit**

Participants have on deposit with DTC approximately \$24 billion principal amount of certificates of deposit (CDs), all in book-entry-only form. Participants may exercise early redemption options for CDs by instructing the depository, which credits proceeds to Participants' settlement accounts. DTC also credits to their accounts proceeds for CDs held for them to maturity. During 1986, DTC credited payments of \$8.7 billion to Participants' accounts for 1,591 CDs held to maturity, up from \$6.5 billion for 1,070 CDs in 1985.



In 1986, DTC implemented procedures that increase the number of dividend and interest payments credited to Participants on payable date.

Discussing the procedures' benefits are (from left) Desmond C. Kerr, Manager, Salomon Brothers Inc; Betty Guzzardi, Vice President, Shearson Lehman Brothers Inc.; and Frank Petrillo, Vice President, DTC.

### ***Redemption of Floating Rate Notes and Rollovers of Government Securities***

*Participants may redeem floating rate notes and other securities with similar repayment options via instructions to the depository, the cash proceeds being credited to their settlement accounts.*

*Participants with maturing U.S. Treasury bills on deposit can also use DTC to reinvest (rollover) the proceeds into new bills issued on maturity date. Although the number of transactions effected is small, Participants consider these services useful because they reduce expenses associated with exception processing.*

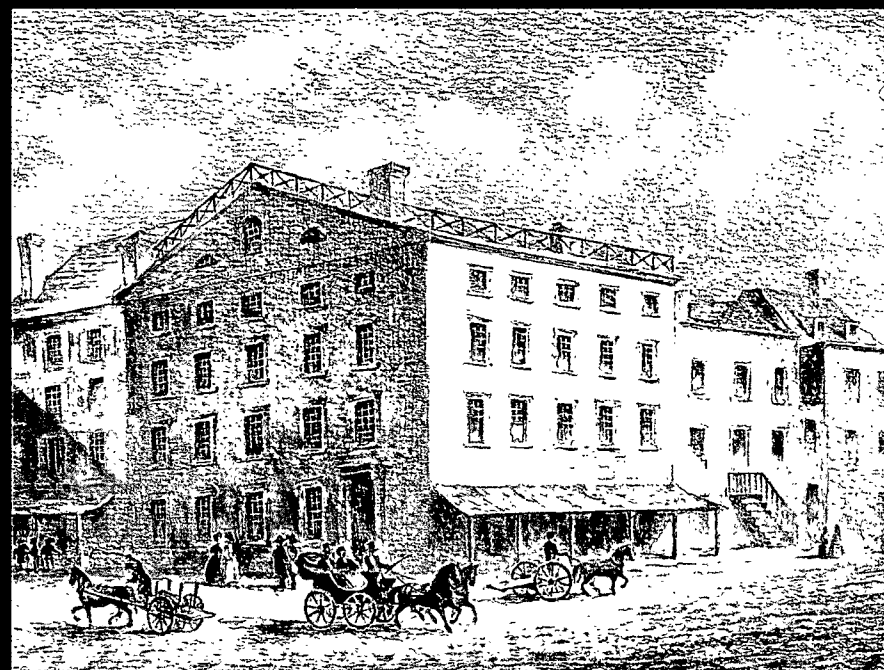
### ***Services for Units***

*A unit is a combination of two or more component securities (such as a stock and a warrant, or a bond and a put option) initially sold and transferred as though they were one. After a period determined by the issuer and underwriters, the components can be sold and transferred separately.*

*In 1986, Participants submitted 10,600 unit "Swingover" book-entry instructions to combine more than 500 million component shares on deposit in their accounts into approximately 200 million units, and 16,000 instructions to separate 340 million units into more than 1 billion component shares. The resulting units and components immediately became eligible for all DTC book-entry services, the Institutional Delivery system, and National Securities Clearing Corporation's Continuous Net Settlement system. The number of unit issues included in the program grew to 636, including 187 municipal units, at yearend 1986.*

### ***Dividend Reinvestment***

*The Dividend Reinvestment Service (DRS) allows Participants 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. In 1986, DRS included 150*



*Fraunce's Tavern—site of Commander-In-Chief Washington's sentimental farewell to his officers on December 4, 1783—was an important place of business during the years that the federal government was based in New York.*

*Secretary of Foreign Affairs John Jay and his staff occupied four rooms in the building in 1785. Two years later, the War Department (under Henry Knox) and the Treasury Department (under Robert Morris, Superintendent of Finance) moved in. During this period, the Treasury Department addressed fiscal problems remaining from the Revolution—including back pay for soldiers, and repayment of state loans and officers' expenses.*

participating plans that generated almost \$900 million of new capital for participating issuers through dividend reinvestments.

Without DRS, a Participant would either have to refrain from depositing certain shares with DTC, 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 Participant would have to handle the certificates on an exception basis, thereby defeating the benefits of certificate immobilization through depository usage. In addition, the Participant itself would have to arrange for reinvestment of dividends through 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 between Participant and plan administrator are eliminated and replaced by a more flexible and less costly set of book-entry transactions.

## Options

Use of DTC's interface with The Options Clearing Corporation (OCC) increased throughout 1986; some 170 banks and broker-dealers had securities "pledged" to satisfy OCC put and call margin or clearing fund requirements. By yearend 1986, the total value of securities pledged approximated \$8 billion. This represents 76% of the value of securities collateral with OCC from all sources.

### Third-Party Pledge System

DTC's "Third-Party Pledge System" offers an alternative to the escrow receipt method, in which a bank holds securities in an escrow account, issuing a receipt that can be used to satisfy OCC requirements for the writer's call option. Under this system, banks may pledge to OCC securities on deposit at DTC. One improvement over the escrow receipt method is that changes in the quantity of shares pledged do not require

release and reissuance of escrow receipts, nor do changes in the option series to be collateralized. 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. In addition, processing is simplified because there are no repeated paper movements among the parties to the transaction. Finally, 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 sufficient securities to pledge.

This capability also can be used for put options, when a put option writer has deposited cash with a bank, and the bank has invested the cash in U.S. Treasury bills. The put option writer may instruct the bank to move the T-bills to DTC and then pledge them to OCC for the account of the OCC clearing member carrying the writer's short position. OCC then reduces the clearing member's margin requirements accordingly.



In 1986, DTC cut and presented some 35 million municipal bond coupons to obtain interest due its Participants.

## Warrant Subscriptions

A warrant is a security that entitles the owner to subscribe to the purchase of underlying securities, typically common stock of the issuing company. Warrants normally have a life of three to five years. Subscriptions often cannot be exercised during a prescribed waiting period following issuance of the warrants. Thereafter, subscriptions are

generally exercisable at any time during the remaining life of the warrants at a fixed subscription rate and purchase price.

In 1986, DTC began a pilot program permitting Participants to exercise warrant subscriptions by book-entry. By yearend, 55 Participants had processed 174 subscriptions in eight warrant issues.

## DTC Growth: A Five-Year Perspective

	1986	1985	1984	1983	1982
<b>Eligible Issues</b>					
Equities	17,274	15,560	13,176	11,432	9,474
Corporate Debt	10,631	8,492	8,018	6,450	5,075
Municipal Bonds	321,281	220,054	106,163	48,516	18,697
Other	22,735	17,975	11,941	4,999	3,115
Total	371,921	262,081	139,298	71,397	36,361
<b>Selected Services</b>					
Market Value of Book-Entry Deliveries (In Trillions)	\$ 8.1	\$ 5.5	\$ 3.8	\$ 3.6	\$ 2.3
Number of Book-Entry Deliveries (In Millions)	66.7	55.8	48.0	50.0	37.0
Value of Securities on Deposit (In Billions)	\$ 2,547	\$ 2,010	\$ 1,437	\$ 1,241	\$ 838
Shares on Deposit (In Billions)	70.3	54.5	46.6	40.0	26.7
Principal Amount of Corporate Debt on Deposit (In Billions)	\$ 552.0	\$ 430.9	\$ 340.1	\$ 241.7	\$ 171.0
Principal Amount of Municipal Bonds on Deposit (In Billions)	\$ 426.3	\$ 306.4	\$ 167.3	\$ 61.5	\$ 13.2
Cash Dividend and Interest Payments (In Billions)	\$ 120.7	\$ 95.2	\$ 74.3	\$ 54.8	\$ 37.2
ID System Confirmations (In Millions)	17.1	14.0	11.7	11.3	5.4
Underwriting Distributions Through DTC	15,745	9,817	5,762	3,209	1,425
<b>Participation</b>					
DTC Participants	531*	515	500	468	448
Broker-Dealers	357	342	335	322	328
Banks	174	173	165	146	120

\*Excludes seven clearing agencies and indirect participation in DTC by at least 2,200 banks and broker-dealers that are correspondents of Participants.

## *Municipal Bond Program*

*Only a few years after DTC extended the range of its services beyond corporate securities to municipal bonds, issuers, brokers, dealers, and custodian banks have become heavy users of these services. At yearend 1986, five years after the depository initiated its major program in municipals, more than 55% of the principal amount of all municipal bonds outstanding—\$426 billion—was immobilized in DTC's custody.*

*Many reasons account for the sharp annual growth of this program to date and the likelihood that this growth will continue. A principal factor is municipal issuers' growing awareness of the advantages of the depository system for issues brought to market in certificated form.*

*Specifically, issuers benefit from:*

- Reduced costs associated with certificate printing and signatures and with other issuance expenses.*
- Reduced costs of ongoing transfer expense after secondary-market trading.*
- Additional and continuing cost savings when the new issue is book-entry-only, with no certificates available to investors.*

*Underwriters, brokers, and dealers benefit by:*

- Reducing labor-intensive costs through book-entry deliveries, which also reduce "fails."*
- Sharply diminishing risk of loss during the handling and shipping of bearer bonds.*
- Receiving payment of municipal bond interest on payable date.*

## **Significant Results**

*Issuer and Participant satisfaction with the Municipal Bond Program was demonstrated by 1986's results:*

- The face amount of municipal bonds on deposit at DTC increased by \$120 billion during 1986, rising 39% from \$306 billion at yearend 1985 (see chart 14).*
- In 1986, underwriters distributed more than 4,200 new municipal issues through DTC, comprising over 58,400 separate serial and term bonds. These underwritings totaled \$119 billion in principal amount—more than 75% of the total amount of all new municipal bond issues in the U.S. last year.*
- At yearend, average daily municipal transactions through DTC included over 14,000 book-entry deliveries, almost equally divided between bearer and registered securities.*
- DTC ran lotteries for partial redemptions in more than 12,600 issues with approximately \$3 billion in call proceeds paid to Participants. This represents a 315% increase in the number of lotteries and a 340% increase in value over 1985 (see chart 15; and chart 16 for maturities and full redemptions). This large increase in partial calls—a consequence of lower interest rates—put pressure on redemption agents and caused problems for DTC and other holders of securities. Fortunately, improved systems and performance standards began to emerge toward the end of the year, in response to a consensus among operations professionals that was endorsed by the Securities and Exchange Commission.*
- By yearend, DTC had cut and prepared for paying agents more than 35 million bond coupons to obtain interest payments due its Participants, compared to 28 million in 1985 (see chart 17).*

## **Book-Entry-Only Municipals**

*Since so much of a typical municipal issue is held by the depository after coming to market—often DTC holds 80% or more of its principal amount—increased*

Chart 14

**Municipal Securities on Deposit**  
(In Billions of Dollars of Principal Amount)

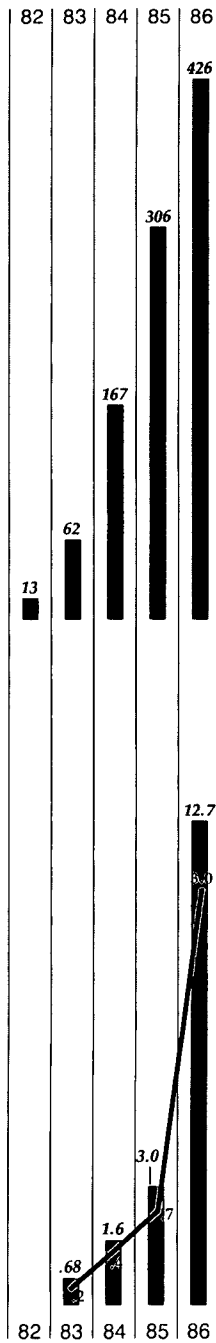


Chart 15

**Lotteries for Partial Redemptions of Municipal Bonds**

Number of Issues Called (In Thousands) ■  
Value of Redemptions (In Billions of Dollars) —

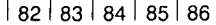


Chart 16

**Maturities and Full Redemptions of Municipal Bonds**

Number of Issues (In Thousands) ■  
Value of Redemptions (In Billions of Dollars) —

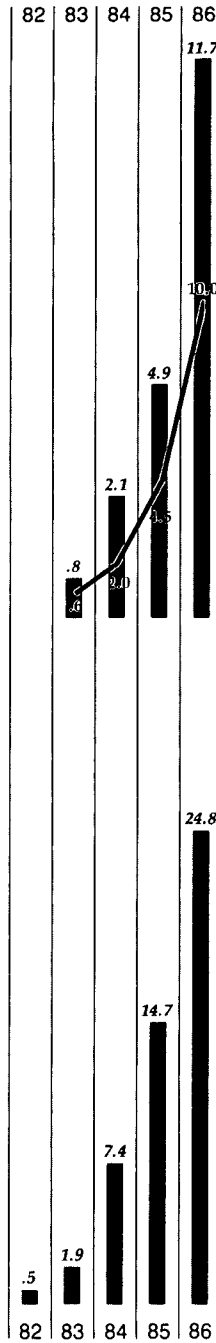
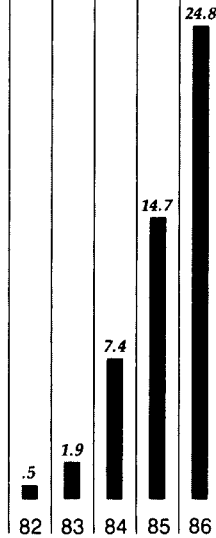


Chart 17

**Total Municipal Bond Interest Received for Participants**  
(In Billions of Dollars)



cost savings have encouraged issuers to sell securities in book-entry-only (BEO) form. The number of such issues grew dramatically in 1986.

In BEO issues, no certificates are made available to investors. A single certificate for each maturity of an issue is issued in DTC's nominee name and held by DTC until maturity or redemption. Beneficial ownership of the securities is recorded through entries on the records of DTC, its Participants, and their correspondents. Interest and principal payments and redemptions pass through this chain as evidenced by these records.

DTC-ELIGIBLE MUNICIPAL ISSUES

	<u>1986</u>	<u>1985</u>
Bearer or Interchangeable	157,621	114,569
Registered	163,660	105,485
<b>Total Municipal</b>	<b>321,281</b>	<b>220,054</b>



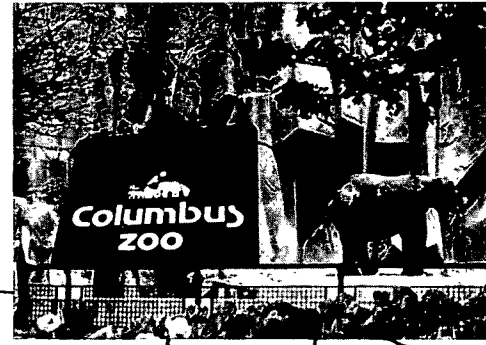
In 1986, the NASD and the NYSE amended their respective Section 64 of the Uniform Practice Code and Rule 387. These amendments—subject to SEC approval—seek to reduce the cost of institutional trade settlements by encouraging more use of automated facilities such as DTC's ID system.

Discussing the impact of these amendments are (left) Donald J. Catapano, Director, NASD, and Raymond J. Hennessy, Vice President, NYSE.

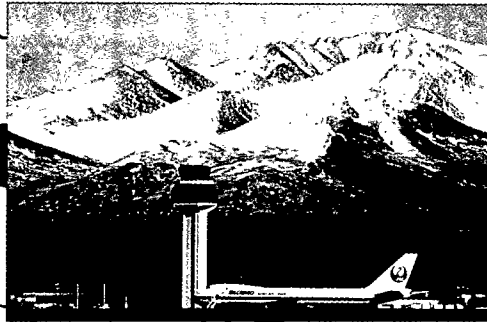
**ISSUER USE OF BOOK-ENTRY-ONLY** (as of March 31, 1987)

The map below illustrates the extent of municipal issues in book-entry-only (BEO) form. BEO issuances helped fund each of these six diverse projects.

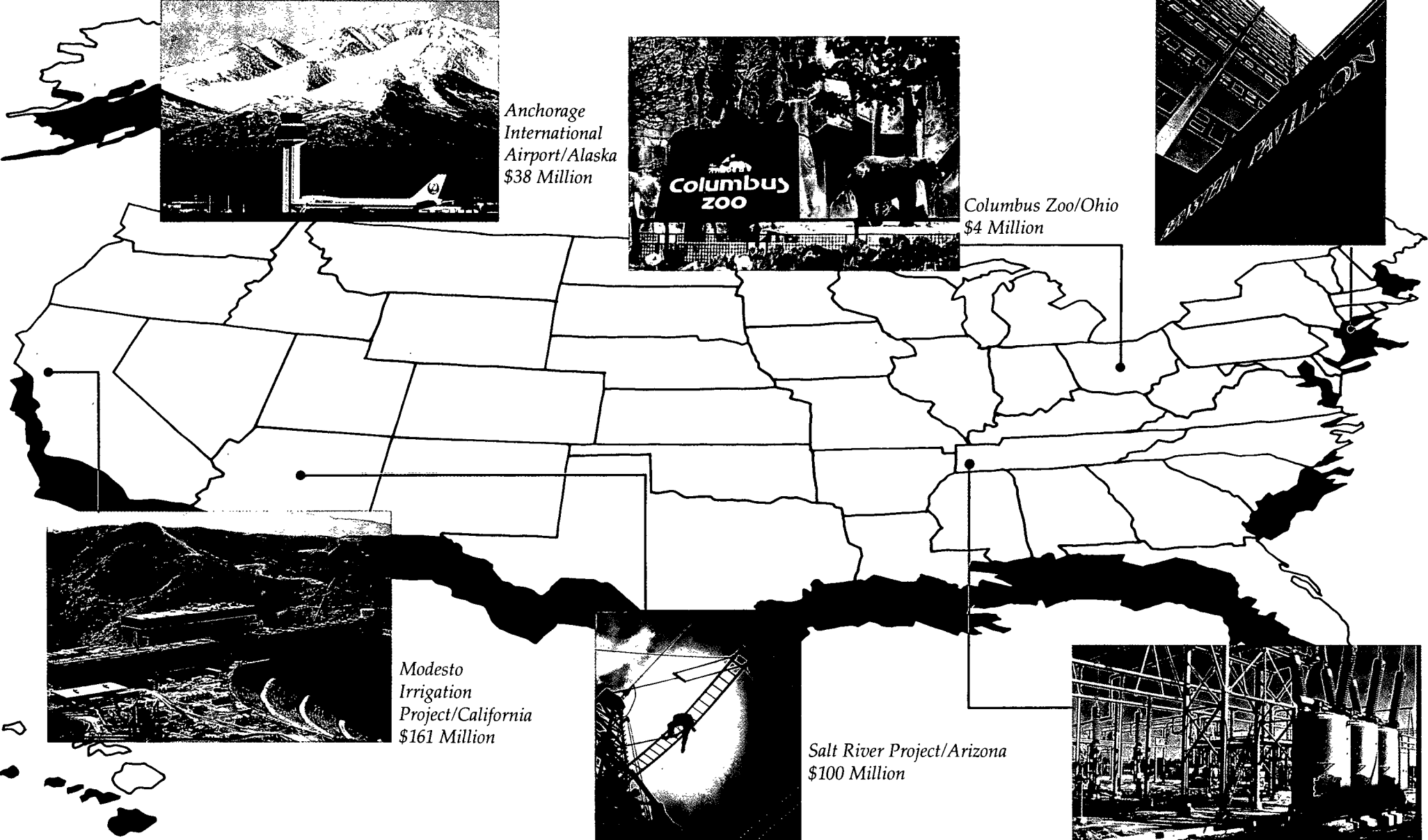
Bernstein Pavilion/Beth Israel Medical Center (New York City)  
\$28 Million



Columbus Zoo/Ohio  
\$4 Million



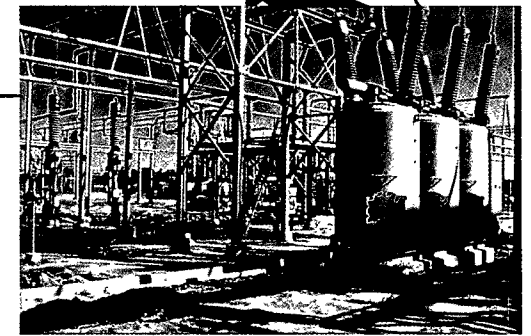
Anchorage International Airport/Alaska  
\$38 Million





Modesto Irrigation Project/California  
\$161 Million



Salt River Project/Arizona  
\$100 Million



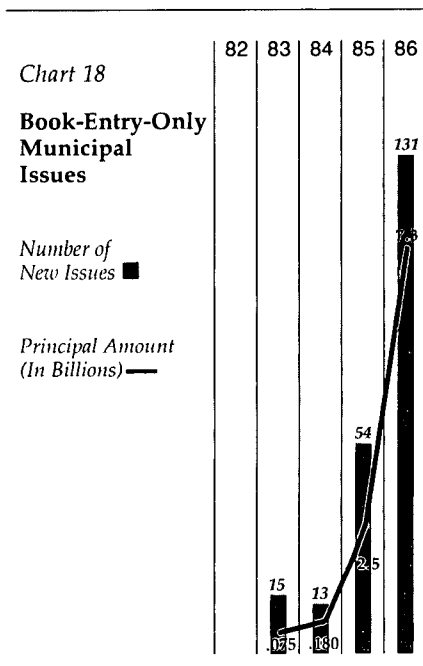
Electric Division/Memphis, Tennessee  
\$133 Million

 BEO Issues Include the State  
 One or More BEO Issues

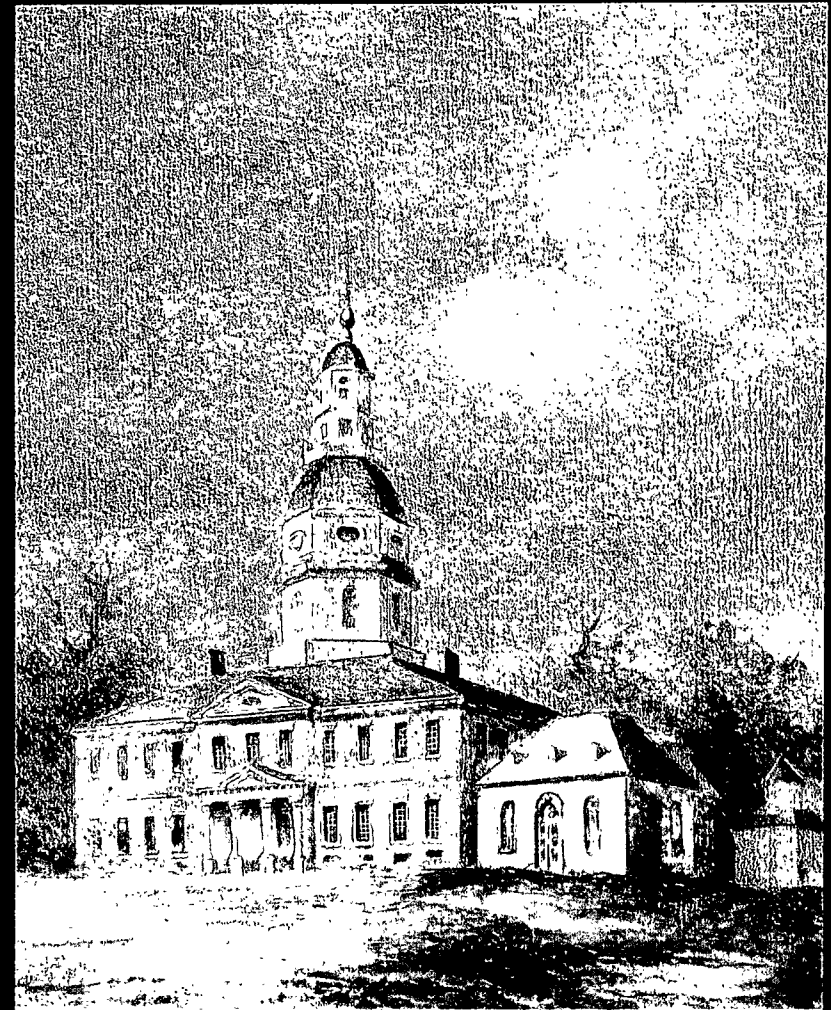


## Growth in 1986

- Underwriters distributed \$7.2 billion principal amount of book-entry-only securities through DTC in 1986—nearly triple 1985's total—raising the total amount issued to more than \$10 billion since the program's inception (see chart 18).
- The 127 municipal book-entry-only issues that underwriters distributed through DTC in 1986 more than doubled 1985's number of such issues (see chart 18).
- Issuers in 32 states, including 15 states themselves, had issued municipal BEO securities by yearend.
- In December, the largest BEO offering to that point—New York City's \$659 million issue, its first in book-entry-only form—and the smallest at that time—a \$513,000 issue for Ocean County, New Jersey—were distributed through DTC.



Growing interest in book-entry-only issuance led DTC to distribute two publications—a brochure, Book-Entry-Only Municipals . . . The Time is Now, which briefly summarizes key aspects of BEO issuance; and a report, Book-Entry-Only Municipals: An Idea Whose Time Has Come, providing more comprehensive information. Both publications are available upon request.



The sister commonwealths were invited in 1786 to send delegates to Annapolis to discuss the U.S. trade and commercial system. Though lightly attended, the conference's modest recommendation—that a more significant convention be called—prompted Congress to invite each state to send a representative to the Philadelphia Constitutional Convention "for the sole and express purpose of revising the Articles of Confederation."

The Maryland State House, as illustrated above, served as the meeting place for the Annapolis Convention in September 1786.

## ***I**nstitutional Use of Securities Depositories*

### *Custody of Institutional Assets*

*Recognizing the benefits of depository services, both banks and their institutional customers have continued to desire the deposit of their assets at DTC. Accordingly, bank deposits of their own and other institutional assets into DTC increased by \$395 billion in 1986.*

*Institutional assets in the national depository system amount to nearly \$2.1 trillion—almost \$1.9 trillion of which is on deposit with DTC. In total, these assets are in the accounts of over 1,400 U.S. banks (representing 98% of all managed trust assets reported in the most recent Federal Reserve study) that participate in depositories directly or indirectly. Moreover, while the remaining 1,600 banks with managed trust assets cannot be readily identified as users of depositories, DTC believes that a number of these banks also participate in the depository through direct or indirect depository members.*

### ***Deposit of Pension Fund Assets***

*While DTC bank Participants continued to deposit private pension fund assets into their DTC accounts throughout 1986, the great bulk of these assets had been placed in the depository in prior years.*

*Growth continued in the deposit at DTC of state and municipal retirement system assets. Earlier, depository usage by state and municipal pension funds often was restricted by state laws or regulations enacted before the depository system was developed. Currently, 47 states have no regulatory or statutory bars to the use of the depository system by state*

*pension funds. Indeed, 43 of these states and the District of Columbia have all or part of their pension fund assets on deposit at DTC through custodian banks. With Ohio permitting depository use in 1986 for the first time, only Arkansas, Texas, and Wyoming still require that public pension fund assets be physically domiciled within their state boundaries or be kept as physical certificates wherever they may be domiciled. DTC continues to work with others to eliminate these restrictions.*

### ***Deposit of Insurance Company Assets***

*The total value of insurance company assets on deposit at DTC through agent banks increased significantly in 1986. These assets approximated \$235 billion, up 77% from \$133 billion last year.*

*As with public pension funds, the major obstacle to depository custody of securities owned by insurance companies has been the framework of statutes and regulations in various states. Though many states permitted depository usage at the state insurance commissioner's discretion, in other states the problem was statutory—typically a requirement that assets be physically domiciled within the state or that they be kept as physical certificates wherever domiciled.*

*In 1986, the depository continued to work with the National Association of Insurance Commissioners, the Securities and Exchange Commission, and others to eliminate restrictions on depository usage. Currently, 47 states and the District of Columbia permit their domestic insurance companies to deposit assets out of state. With Arkansas, Louisiana, South Dakota, Utah, and West Virginia acting to permit DTC usage in 1986, now only California, New Mexico, and Wyoming have laws or restrictions that require domestic insurers to maintain assets within the state.*

*While state barriers have made the insurance sector of the financial industry the slowest to adapt to depositories, 815 insurers were reported to be using DTC services through agent banks at yearend. In addition, a number of insurance companies in restrictive states allow book-entry delivery to a clearing bank and the subsequent transfer of securities into the nominee name of the insurance company.*

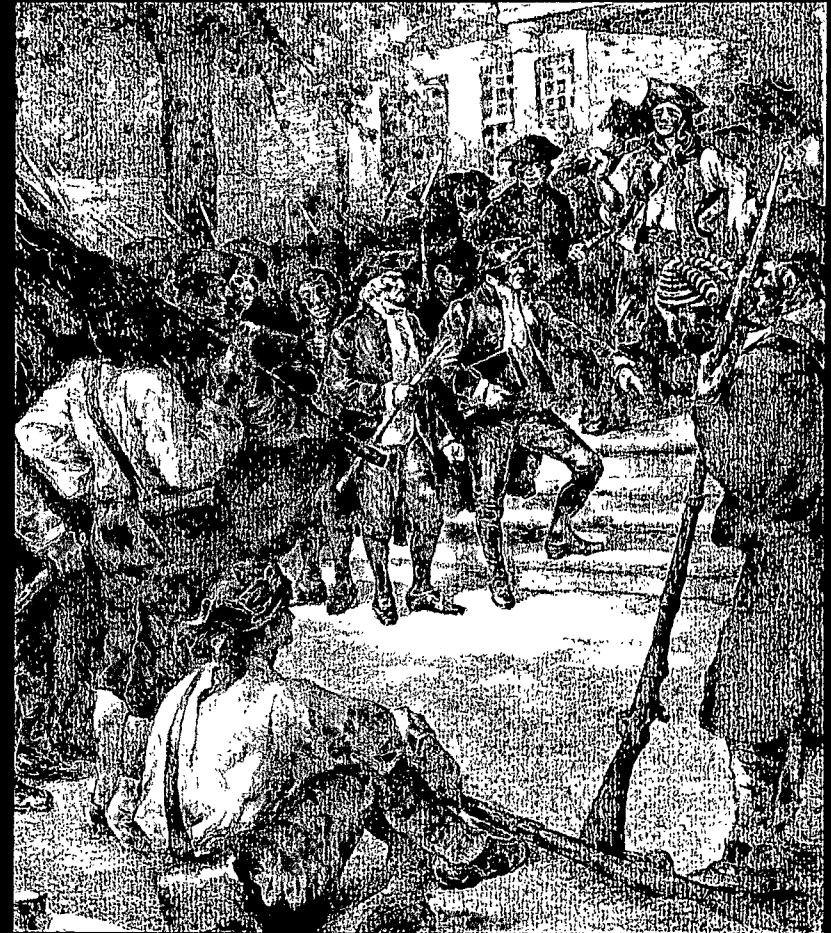
### ***Deposit of Investment Company Assets***

*Deposits of investment company assets have grown steadily over the past eight years as custodian banks have more fully utilized depository services. Virtually 100% of investment company DTC-eligible assets are now on deposit. Also, as more securities become DTC-eligible, particularly municipal bonds, custodian banks can deposit eligible portions of mutual fund debt portfolios.*



*In December, the SEC endorsed six recommended minimum improvements that issuers, their agents, and trustees should make in current procedures regarding municipal bond redemptions.*

*Industry representatives who supported these improvements include (from left) Malcolm J. Hood, Senior Vice President, United States Trust Company of New York; Jeffrey H. Smith, Vice President, Salomon Brothers Inc; John J. Lynch, Jr., Executive Vice President, J.F. Hartfield & Co., Inc.; and Timothy C. Crane, Vice President, Manufacturers Hanover Trust Company.*



*Unhappy with their lack of representation in tax matters, Daniel Shays—a former captain in the Continental Army—and more than 1,500 armed western Massachusetts farmers rebelled in 1786 against the state government by blocking courthouse entrances.*

*George Washington, presiding officer of the Constitutional Convention, believed the uprisings further evidenced the need for a more effective political instrument: "I do not conceive we can exist long as a nation without lodging, somewhere, a power which will pervade the whole Union in as energetic a manner as the authority of the state governments extends over the several states."*

David Burner, with Elizabeth Fox-Genovese, Eugene D. Genovese, and Forrest McDonald, excerpted from *An American Portrait*. Text Copyright ©1985, David Burner. Debates Copyright ©1985, Eugene D. Genovese and Forrest McDonald. Reprinted with permission of Charles Scribner's Sons.

### *Movement Toward Book-Entry-Only Issues*

*In 1986, Securities and Exchange Commission Chairman John S.R. Shad continued to emphasize the cost-savings benefits to issuers of issuing new corporate and municipal debt securities in book-entry-only form, with no certificates available to investors. While offering this option to issuers and their underwriters, DTC, aware that a few states still required insurance companies and public pension funds to hold definitive certificates, provided issuers with a new option: book-entry-only new issues with certificates available solely to institutional investors that certify a regulatory need for them. This option may assist issuers that wish to move from the current environment of depository book-entry with unlimited certificate availability toward "pure" book-entry-only issues.*

### *Institutional Delivery (ID) System*

*The Institutional Delivery (ID) system is a method for reporting and settling trades initiated by institutions in a manner that reduces costs and increases assurance of timely settlement. Its most important features are that it introduces a single entity—DTC—to coordinate all settlement activity among broker-dealers, institutions, and agents, and that it offers convenient electronic, automated methods to accomplish this.*

*Briefly stated, the system works as follows:*

- (1) A broker or bank dealer executing an institutional trade furnishes DTC with trade details (e.g., price, quantity, date), which the depository passes on in a form recognized as a legal confirmation to the broker's or bank dealer's institutional customer, and the customer's agent and other interested parties.*
- (2) If the ID confirmation accurately reflects the institution's order, the institution sends an acknowledgment (ID affirmation) to DTC. If the ID confirmation is faulty (e.g., contradicts the institution's order records), the institution can act early enough in the settlement cycle so that the broker or bank dealer can enter the appropriate corrections*

*into the ID system. If the broker's or bank dealer's trade details are insufficient to generate an ID confirmation, DTC notifies the broker or bank dealer so the problem may be resolved for timely settlement.*

- (3) Upon receipt of the affirmation, DTC forwards instructions to the agent and the submitting broker or bank dealer to prepare for settlement.*
- (4) If the deliverer has sufficient securities in its DTC account and authorizes the trade settlement, the depository completes the delivery by book-entry automatically on the morning of settlement date and processes the related money settlement as directed.*
- (5) If the security is not DTC-eligible, the deliverer and receiver settle the transaction outside the depository system. In such cases, although delivery must be physical rather than by book-entry, DTC, in its role as clearinghouse, provides instructions to help ensure successful completion of delivery on settlement date.*

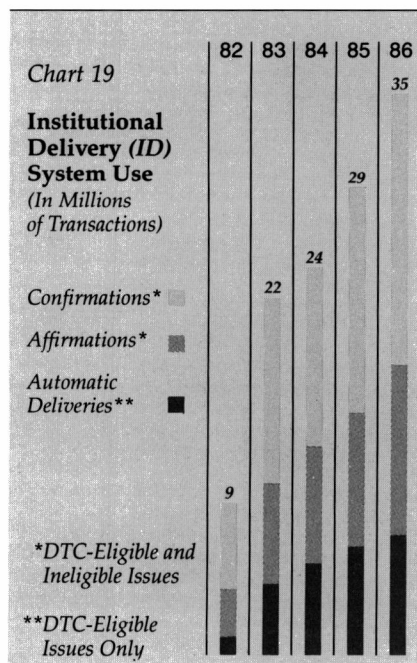
### *ID in 1986*

- The Institutional Delivery system expanded by yearend 1986 to include 6,491 institutions, broker-dealers, banks, and agents. Average monthly volume of ID confirmations processed through the system exceeded 1.4 million for the fourth quarter, up approximately 10% from the comparable 1985 period. For the year, over 34 million confirmations, affirmations, and deliveries were processed through ID, a 22% increase over 1985's total (see chart 19). At yearend 1986, the industry affirmation rate for corporate debt and equities reached 87%, up slightly from 86% at yearend 1985; the automatic delivery rate for the same period—the measure of trade settlements that are triggered on schedule by trade affirmations—dropped to 86% from 92%, however.*
- In connection with Municipal Securities Rulemaking Board (MSRB) Rule G-15, which generally requires that institutions' municipal transactions be settled through ID-like facilities, DTC continued to emphasize improvement of ID usage for municipals. This educational and quality-of-usage program helped raise the industry's affirmation rate for institutional trades in municipals*

to 50% at yearend, up from 26% when the first phase of MSRB Rule G-15 went into effect in August 1984.

- To help users achieve greater processing efficiency from the ID system, DTC gathered suggestions from ID user groups on additional system features and reports that should be introduced during 1987.
- DTC contracted with a communications network vendor to enable ID institutional users outside New York City to dial a local number in their geographic area in order to link directly with DTC's computer. These users can receive ID confirmations and affirm trades, while saving long-distance toll charges. Some 300 institutions use this service.
- As the year ended, acting with the encouragement of the ID Implementation Committee, the National Association of Securities Dealers and the New York Stock Exchange were in the process of

*modifying their respective rules to encourage more institutional trade clearance and settlement through depository systems. These modifications would eliminate collect-on-delivery payment privileges now extended by broker-dealers to certain customers if these customers do not arrange for their securities deliveries to be cleared and settled through depository systems.*



*George Wythe—a successful Virginia lawyer of the mid-Eighteenth Century—was a substantial force in the architecture of America. A master of elocutionary style and logic, Wythe educated many of the minds that would shape the young country.*

*Illustrated above is Mr. Wythe's estate in Colonial Williamsburg.*

## *A*utomation of Depository Services

A continuing priority at DTC has been the automation of internal depository operations and of communications that link DTC with Participants, other users, and transfer agents. Major emphasis has been given to automating incoming Participant instructions and the distribution of reports to Participants. The depository reduces its operating costs by such means and, more importantly, Participants can reduce their own processing costs; moreover, all parties gain through the reduction of errors caused by manual procedures.

DTC uses five principal means of automated communication with Participants or others—the Participant Terminal System (PTS), PTS Jr., Dual Host PTS, Computer-to-Computer Facility, and Automated Participant Interface, each of which is described below.

### *Participant Terminal System*

The depository's Participant Terminal System is a network of computer terminal stations located in Participants' offices throughout the United States and in Canada and tied directly to DTC's computers. Participants use their terminals to communicate instructions, inquiries, and other messages to DTC and to receive messages and reports from DTC via the printer with which each installation is equipped.

During 1986, the number of terminals in Participants' offices increased to 966 from 774 a year earlier, while the average daily number of total transactions, including inquiries and messages as well as instructions for specific transactions, grew to 517,200 at yearend, up nearly 35% from 383,300 a year earlier.

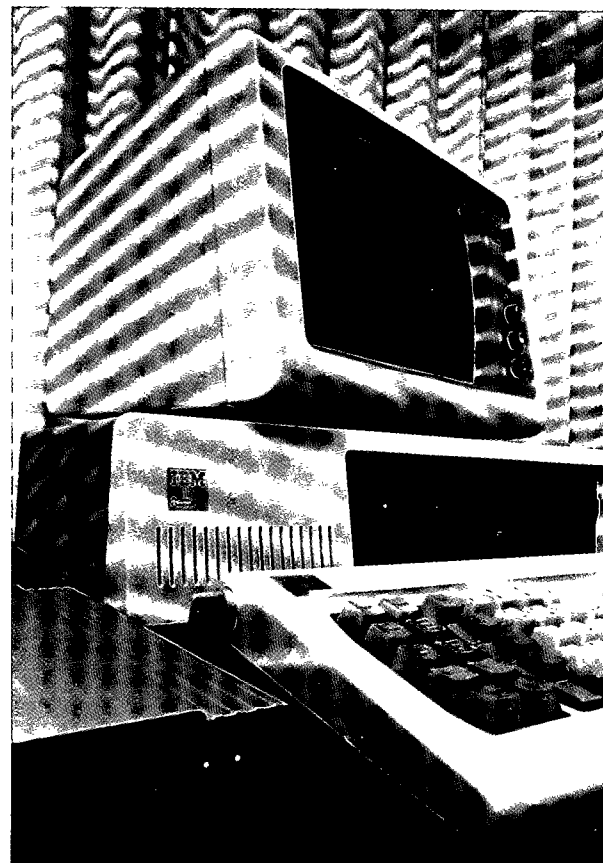
### *PTS Jr.*

*PTS Jr.*, an alternative to PTS, is available only to low-volume users. It performs all of the functions that PTS performs, at reduced expense, though at reduced line speed. This system requires only a user's compatible personal computer, which is less expensive than PTS terminal configurations, DTC-supplied software, a modem, and a telephone connection rather than the costlier dedicated PTS line.

By yearend 1986, 96 Participants and 16 Pledgee banks were using PTS Jr.

### *Dual Host PTS*

In 1983, DTC introduced Dual Host PTS as a desirable option for Participant Terminal System units for processing book-entry deliveries. Under the Dual Host approach, a PTS user's typical terminal cluster is replaced by a minicomputer with attached video display terminals, disk



*PTS Jr.—a low-speed alternative to PTS available only to low-volume users—performs all PTS functions at reduced expense to its users.*

drive, and printers. In addition to affording users all of the display and printing capabilities available in the standard PTS configuration, the minicomputer permits the storage of receive and deliver information on disk, in machine-readable form, for subsequent transmission to the user's computer for further automated processing, as time and capacity are available. (Under the standard method, when a PTS message is received, the printout must be physically detached from the terminal and physically carried to the appropriate destination for further clerical and/or machine processing.) Dual Host PTS allows Participants automatically to match book-entry receive notifications and facilitates redelivery to other Participants. At yearend 1986, 13 Participants were using Dual Host PTS.

### Computer-to-Computer Facility

The Computer-to-Computer Facility (CCF) is used for direct computer-to-computer communications between DTC and system users.

It allows the transmission of instructions from system users' computer systems to DTC's computer system and transmission of certain data back from DTC. During 1986, the number of CCF users grew to 381 from 267 at yearend 1985.

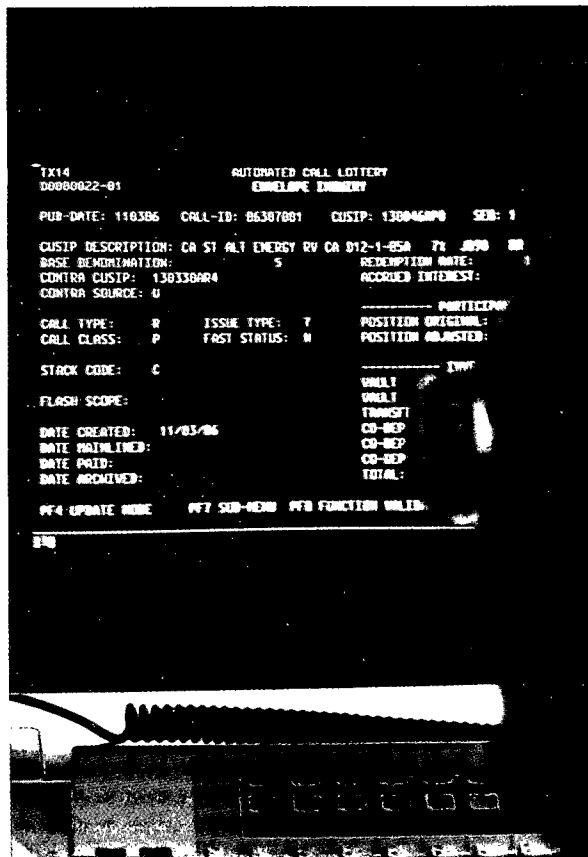
### Automated Participant Interface

Many DTC Participants have large volumes of depository activity that they cannot yet transmit by CCF but whose input by PTS would not be economical. The Automated Participant Interface (API) allows them or their data processing service bureaus to enter those instructions directly into DTC's computer system by means of hand-delivered or electronically transmitted magnetic tape. API capabilities currently include magnetic tape instructions for routine Withdrawals-by-Transfer, Deliver Orders, and Payment Orders.

### Developments in 1986

The depository's primary emphasis and accomplishments regarding automation during the past year are summarized below:

- More input to DTC from Participants and more reports to Participants from the depository were placed on CCF, PTS, and PTS Jr. to diminish the use of paper forms and hand-delivered magnetic tapes.
- CCF II was developed to permit communications with DTC's computer system from non-IBM mainframes. All output files currently available through CCF are also available through CCF II. By yearend 1986, CCF II had 41 users.
- DTC introduced a service that allows PTS users to key-in reconciliation inquiries. Users receive a DTC response including the data entered along with a 10-digit control number, which may be used to determine the inquiry's status at a later date.
- DTC revised deposit tickets used by Participants and required that they meet specifications for optical scanning by DTC.



DTC's newly installed automated call lottery system allows DTC and Participant personnel on-line access to current and historical lottery-related data, sharply reducing the time required to run lotteries and research and reconcile any differences.

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

*Depository Trust's interfaces with other clearing agencies—both clearing corporations and other securities depositories—constitute a major element in the national system for the clearance and settlement of securities transactions. These interfaces enable 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 by book-entry deliveries. This arrangement eliminates the interregional movement of securities certificates, thereby contributing further to their immobilization.*

*Depository Trust maintains an interface with the National Securities Clearing Corporation (NSCC) in New York for all depository-eligible issues. Broker-dealer Participants in DTC may use their positions at DTC to settle with other broker-dealers whose transactions are cleared by NSCC. Preparations were made during 1986 to extend the NSCC-DTC relationship to international transactions envisaged by an NSCC subsidiary, the International Securities Clearing Corporation, with The Stock Exchange in London.*

*DTC also has interfaces for corporate and municipal securities services with Midwest Securities Trust Company (MSTC), Pacific Securities Depository Trust Company (PSDTC), and Philadelphia Depository Trust Company (Philadep). One benefit offered by these relationships is the "third-party" delivery service, which permits a sole member of any one of these depositories to settle transactions with any*

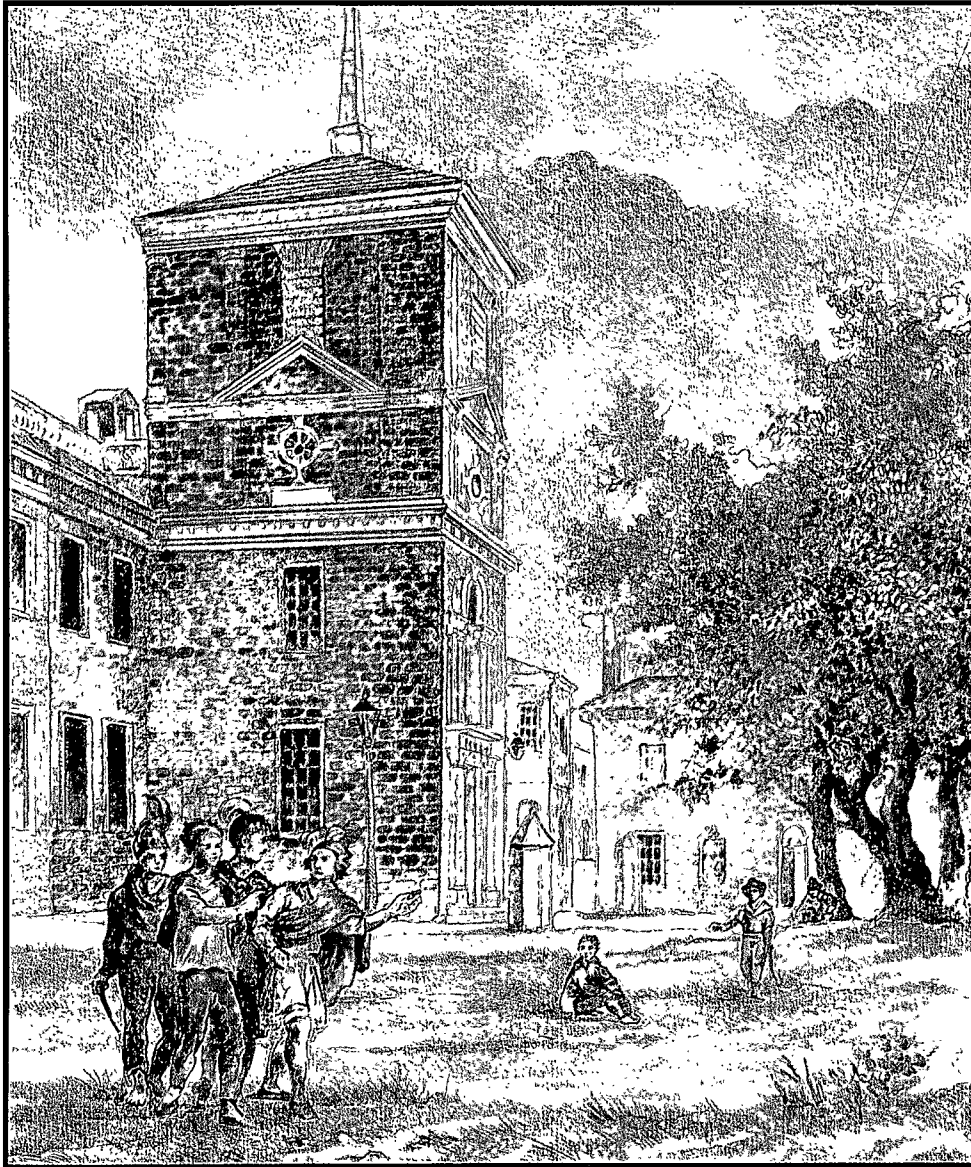
*member of DTC, eliminating the requirement that a member belong to both depositories in order to effect such settlements. Each of these interfaces includes the linking of DTC's Institutional Delivery system with the institutional delivery systems of the regional depositories.*

*To assist settlements of trades on the Boston Stock Exchange, a DTC interface also exists with the Boston Stock Exchange Clearing Corp. and NSCC.*

*DTC also has an interface with The Options Clearing Corporation (OCC), whereby banks may pledge to OCC securities on deposit at DTC. This simplifies processing since there are no repeated movements of paper among parties to pledge transactions. In addition, The Canadian Depository for Securities Limited participates in the interface system.*

*Representatives from DTC, MSTC, PSDTC, and Philadep meet regularly to plan changes in interdepository processing. As a result of such meetings, delivery and reclamation cutoff times at the depositories were standardized in 1986. Upgraded communications links and other improvements were installed, including more frequent delivery movements between depositories, the exchange of additional data, and the elimination of exception processing associated with interdepository deliveries.*





*The Pennsylvania State House—which we now know as Independence Hall—was the site of the Constitutional Convention. Said James Wilson, a Pennsylvania delegate, of the conclave, “America now presents the first instance of a people assembled to weigh deliberately and calmly, and to decide leisurely and peaceably, upon the form of government by which they will bind themselves, and their posterity.”*

*In 1787, Philadelphia’s population of 40,000 made it the largest U.S. city.*

## *Protection for Participants' Securities*

*DTC is the world's largest custodian of corporate stocks and corporate and municipal bonds. Its safeguard program is widely regarded as the most comprehensive yet developed to monitor the movement and custody of securities.*

### *Internal Controls*

*DTC records the movement and location of each certificate in its custody. The records created help resolve processing errors and facilitate reconciliation and audits.*

- *Automated certificate-number control cross-indexes certificates by issue, number, denomination, date of receipt, and—for bearer certificates—the depositor's identity, permitting maintenance of control and rapid reconstruction of paperflow, regardless of volume.*
- *Quick transfer upon receipt of registered certificates into the depository's nominee name, Cede & Co., allows for prompt determination of certificate validity and enhances control over prompt and timely dividend and interest collection.*
- *"Jumbo" certificates consolidate securities into large denominations, making unauthorized negotiation extremely difficult, in addition to conserving vault space.*
- *Restrictive endorsements on the back of certain jumbo certificates further preclude unauthorized negotiation.*
- *Registered certificates remain in non-negotiable form while in DTC's custody.*
- *Microfilm records document registered certificates and related data that enter and leave DTC.*

- *Duplicate computer files of transactions—stored in various locations—permit prompt file reconstruction if processing is interrupted. These and the microfilm records supplement comprehensive files of original documents and production reports.*
- *Backup computer arrangements with a major facility ensure DTC's data processing function throughout any emergency.*

### *Physical Security*

*DTC's physical security system combines sophisticated electronic and physical devices with an extensive security force.*

- *A computerized access control system restricts entry into sensitive areas to persons with properly encoded photo identification cards.*
- *A closed-circuit television system provides recorded information and surveillance of entry points, vaults, and other securities processing areas.*
- *Alarm systems, which use various sensors such as motion, vibration, light, and heat detectors, are monitored locally and at a central station. Line encryption protects individual control panels from compromise.*
- *DTC's security force monitors the many systems, and screens persons and packages entering and leaving restricted areas.*
- *Several vaults contain most securities deposited with DTC. The depository provides separate vaults for bearer instruments; working denominations of registered securities and jumbo certificates of registered issues have their own access requirements and personnel controls.*
- *Registered securities are in non-negotiable form when delivered to or from transfer agents and other parties.*
- *Special wastepaper treatment and disposal methods help prevent unauthorized release of certificates or sensitive documents.*

### *Recordkeeping Systems*

*Double-entry recordkeeping systems help to ensure that all Participant input is recorded, that the physical location of underlying certificates is*

identified, and that monies are properly transferred to and among Participants. The recordkeeping systems are used for reporting to Participants, and by various DTC departments to research differences detected by Participants or DTC control mechanisms.

### User Verifications

Continual user verification of DTC records (users compare their own activity records with depository reports) ensures the integrity of the depository's system and encourages maximum operational cooperation. Each morning, Participants and Pledgees receive a DTC report that itemizes and summarizes their previous day's account activity. In addition, DTC sends daily reports of cash transactions, and a monthly position statement showing each Participant's and Pledgee's securities position status.

DTC Rules require Participants to report differences between their records and DTC statements; Participants and Pledgees must also confirm the accuracy of their monthly position statements. DTC's research staff helps reconcile differences.

### Internal and External Audits

DTC's internal auditors and its independent accountants, Price Waterhouse, review internal controls.

- The internal audit program reviews and tests controls in key operating areas and in automated systems (including systems being developed). Certificates in selected issues are counted daily, utilizing random sampling techniques.
- Price Waterhouse examines DTC's financial statements, and annually performs a study and evaluation of the internal accounting control system. Price Waterhouse's opinion on the system is available to Participants, Pledgees, and their accountants, upon request.

- The Audit Committee of DTC's Board of Directors oversees the General Auditor and the Auditing Department. It reviews the scope of the Price Waterhouse audits and meets with them periodically to discuss their findings. In addition, the Board of Directors receives results of the New York State Banking Department's and the Federal Reserve Bank of New York's annual regulatory examinations of DTC.

### Insurance Coverage

DTC's insurance coverage program for securities—one of the most extensive programs of private institutions in the financial industry—provides coverage in the following amounts per event:

#### Losses Occurring on Premises:

<u>Amount</u>	<u>Coverage</u>
\$100 million	Primary and Excess Blanket Bonds
\$100 million	All Risk Securities excess
\$ 5 million	Lost Instrument Bond Premium Policy (for premiums for securities losses in excess of \$200 million)

#### Losses Occurring in Transit by Messenger or Armored Car Carrier:

<u>Amount</u>	<u>Primary Coverage</u>
\$ 5 million	Air Courier Messenger Policy
\$400 million	In-Transit (by carrier's insurer)
\$100 million	Primary and Excess Blanket Bonds (for securities lost by messenger)

<u>Amount</u>	<u>Excess Coverage</u>
\$100 million	Primary and Excess Blanket Bonds (for securities lost by carrier)
\$ 20 million	Excess In-Transit Bond (for losses exceeding \$100 million when securities are in messenger's custody, and in excess of \$500 million when in armored car carrier's custody)

- \$ 5 million *Armored Car and Messenger Policy (for losses exceeding \$120 million when securities are in messenger's custody, and in excess of \$520 million when in armored car carrier's custody)*
- \$ 5 million *Lost Instrument Bond Premium Policy (for premiums for purchase of lost instrument bonds for securities losses exceeding \$125 million when in messenger's custody, and in excess of \$525 million when in armored car carrier's custody)*

Losses Occurring in the Mail:

<u>Amount</u>	<u>Coverage</u>
\$15 million	<i>Mail Policy (covers lost registered securities that were sent via registered mail)</i>
\$15 million	<i>Mail Policy (covers lost registered securities that were sent via other mails)</i>
\$ 1 million	<i>Mail Policy (covers lost securities that were sent via first-class mail)</i>

*Participants may add riders to their own blanket bond coverage for additional protection against the unlikely event that DTC should have losses beyond the limit of its insurance coverage.*

**Participants Fund**

*The Participants Fund is a fund exceeding \$200 million contributed by Participants and maintained by DTC to satisfy losses not covered by DTC's insurance. DTC's Rules provide that any such loss may be charged against undivided profits or retained earnings, or to the Participants Fund, at the election of the Board of Directors.*

*Should DTC suffer a loss because of a Participant's failure to satisfy obligations to the depository, DTC would first charge such loss to that Participant's deposit to the Fund. Should the loss exceed that Participant's deposit (or should it be sustained for reasons other than Participant*

*failure), DTC might then charge (pro rata) the excess to other Participants' deposits to the Fund. Should DTC make a charge against a Participant's deposit to the Fund (pro rata or otherwise), the Participant must make an additional deposit to the Fund in an amount equal to the charge.*

*There has never been a pro rata charge to the Fund.*

**Other Protective Procedures**

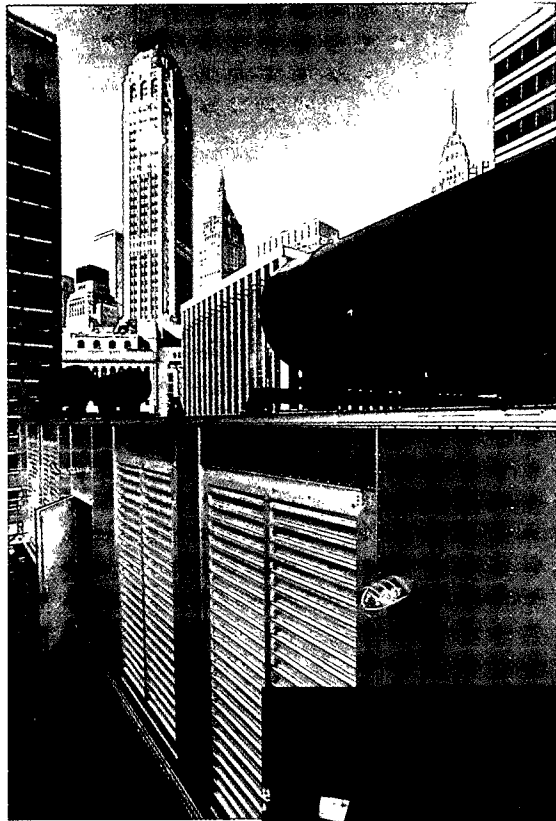
*Additional procedures protect Participants by minimizing the possibility of loss arising from a Participant's unexpected insolvency. If DTC becomes aware—from advice of a self-regulatory organization or other signs—of a Participant's possible operational or financial inadequacy, it carefully monitors that Participant's activity and implements protective remedies as events warrant.*



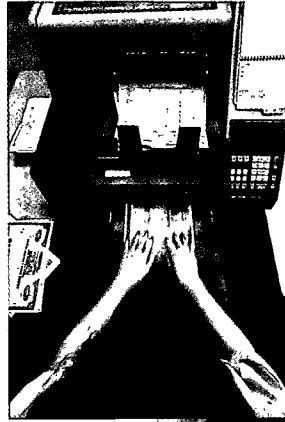
*DTC's Code of Business Conduct and Ethics obligates each employee to act honestly, ethically, and free from conflicts of interest.*

*Elizabeth A. Keller, Director, Human Resources Department, reviews with employees Our Business Depends On Trust, a videotape that applies the Code's principles to practical situations.*





*DTC's program of safeguards is widely regarded as the most comprehensive yet developed to monitor the movement and custody of securities.*



*The program's features include (from top left, clockwise) backup generators, microfilm records, identification badge readers, telephone recorders, a security console room, and a backup data processing site.*



**OFFICERS OF THE DEPOSITORY TRUST COMPANY**



**William F. Jaenike**  
Executive Vice President



**John P. Crowley**  
Senior Vice President



**Dennis J. Dirks**  
Senior Vice President



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



**Arnold Fleisig**  
Senior Vice President



**Conrad F. Ahrens**  
President and Chief  
Operating Officer



**Michael Fedorochko**  
Senior Vice President



**Thomas J. Lee**  
Executive Vice President



**Richard B. Nesson**  
General Counsel



**Edward J. McGuire, Jr.**  
Secretary

## Vice Presidents

Michael A. Agnes  
Nicholas J. Arrigan  
Joseph J. Bellantoni  
Neil F. Brander  
John J. Colangelo  
Raymond R. DeCesare  
Donald F. Donahue  
Ronald A. Garguilo  
Charles J. Horstmann  
James Koster  
Glenn E. Mangold  
Vincent A. Mauro  
Michael T. Mullen  
Richard J. O'Brien  
Frank Petrillo  
James V. Reilly  
John L. Scheuermann  
Kenneth M. Scholl  
Austin E. Titus  
Clifford A. Vangor

## Comptroller

Stuart A. Fishbein

## Treasurer

Philip E. Plasencia

## Assistant Secretary

Jane C. Klueger

## Assistant Treasurer

Leonard A. Miele

## COMMITTEES OF THE BOARD OF DIRECTORS

### Nominating Committee

Thomas C. Schneider, Chairman  
John F. Lee  
Richard S. Pechter\*  
H.J. Runnion, Jr.

\* Succeeded Donald L. Calvin during 1986

### Audit Committee

John J. Evans, Chairman  
James T. Flynn  
Sandra S. Jaffee  
Richard F. Morrison  
Mario J. Nigro  
Edward A. O'Neal, Jr.

### Compensation Committee

Joseph R. Hardiman, Chairman  
John J. Evans  
Richard S. Pechter  
Thomas C. Schneider



*The Constitution did not directly provide for an executive cabinet, though it granted the President power to call for the opinions of each department's principal officer.*

*Washington carefully selected his four advisers—Edmund Randolph, Henry Knox, Thomas Jefferson, and Alexander Hamilton—balancing political philosophies and sectional and state interests.*

Retiring from the Board during 1986 at the end of his term was Arthur F. Ryan, Vice Chairman, The Chase Manhattan Bank, N.A. Also retiring from the Board, in November 1986, was Donald L. Calvin, Executive Vice President, Public Affairs, New York Stock Exchange, Inc.

## THE BOARD OF DIRECTORS

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

**Conrad F. Ahrens**  
President and Chief  
Operating Officer,  
The Depository  
Trust Company

**John J. Evans**  
Vice Chairman,  
Manufacturers Hanover  
Trust Company

**James T. Flynn**  
Executive Vice President,  
Morgan Guaranty Trust  
Company of New York

**Joseph R. Hardiman**  
Managing Director,  
Alex. Brown & Sons, Inc.

**Sandra S. Jaffee**  
Executive Vice President,  
Chief Administrative Officer,  
New York Stock Exchange, Inc.

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

**John F. Lee**  
Executive Vice President,  
New York Clearing  
House Association

**Richard F. Morrison**  
Senior Executive  
Vice President,  
Shearson Lehman  
Brothers Inc.

**Mario J. Nigro**  
Senior Vice President,  
Merrill Lynch & Co., Inc.

**Edward A. O'Neal, Jr.**  
Group Executive,  
Chemical Bank

**Richard S. Pechter**  
Chairman,  
DLJ Financial Services  
Group

**H.J. Runnion, Jr.**  
Senior Executive  
Vice President,  
Wachovia Bank & Trust  
Company, N.A.

**Thomas C. Schneider**  
Executive Vice President,  
Dean Witter Financial  
Services Inc.

**Richard S. White, Jr.**  
Chairman and President,  
RepublicBank Trust  
Company



William T. Dentzer, Jr.



Conrad F. Ahrens



John J. Evans



James T. Flynn



Joseph R. Hardiman



Sandra S. Jaffee



C. Richard Justice



John F. Lee



Richard F. Morrison



Mario J. Nigro



Edward A. O'Neal, Jr.



Richard S. Pechter



H.J. Runnion, Jr.

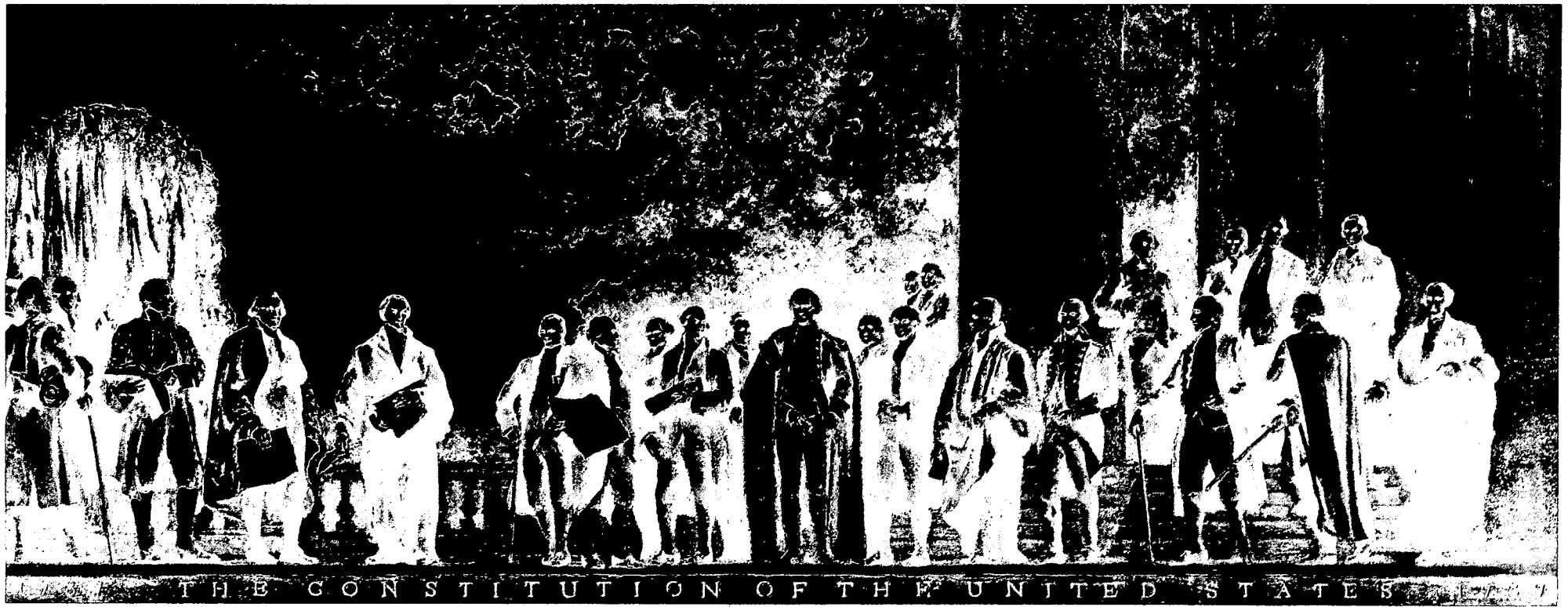


Thomas C. Schneider



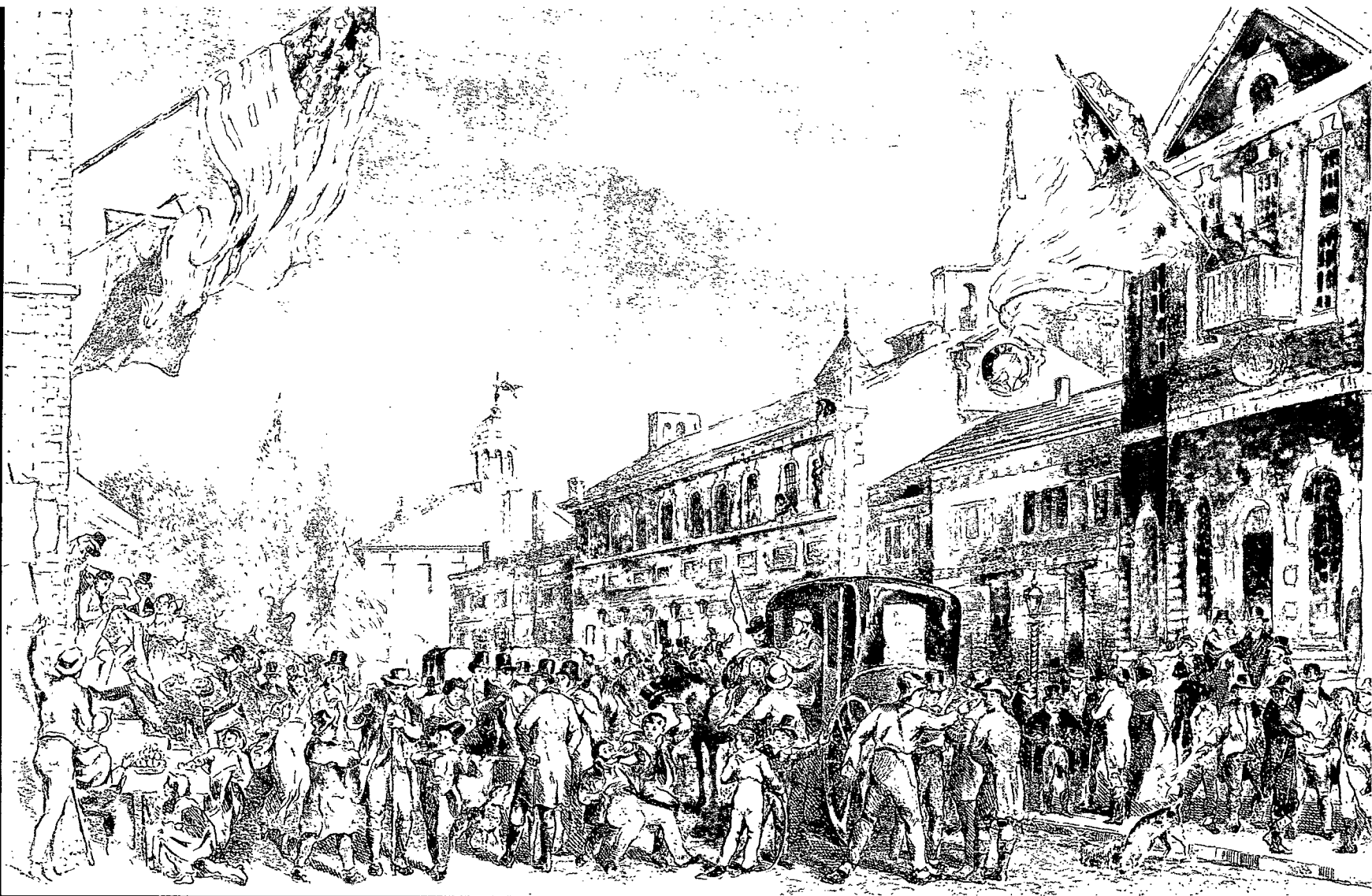
Richard S. White, Jr.





*The U.S. Constitution, completed in the summer of 1787 by 55 delegates from 12 states, was to Prime Minister of Great Britain William E. Gladstone, "The most wondrous work ever struck off at a given time by the brain and purpose of man."*

*Here, James Madison—the major architect of the Constitution—presents the document to Washington and the Convention.*



*Not until 1796 did America face its first disputed presidential election. By that date, citizens had begun to call themselves either Republicans or Federalists. Though for many the country's division into opposing political camps was disturbing, most saw this as the natural condition of a functioning democracy.*

*This rendering of John Lewis Krimmel's Election Day at Independence Hall depicts the charged atmosphere that prevailed on election day in young America.*

## *Report of Independent Accountants*

*To the Board of Directors  
and Stockholders of  
The Depository Trust Company*

*In our opinion, the accompanying statement of condition and the related statements of revenues and expenses and undivided profits and of changes in financial position present fairly the financial position of The Depository Trust Company at December 31, 1986 and 1985, 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 during the period except for the change, with which we concur, in the method of accounting for pension costs as described in Note 5 to the financial statements. Our examinations of these statements 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.*

*Luce Waterhouse*

*153 East 53rd Street  
New York, New York  
February 2, 1987*

The Depository Trust Company  
Statement of Condition

	December 31,		December 31,	
	1986	1985	1986	1985
<b>Assets:</b>				
Cash and money market accounts (Note 1) . . . . .	\$ 622,255,000	\$ 90,481,000		
Repurchase agreements (Note 1) . . . . .	1,612,157,000	1,065,539,000		
U.S. Government securities (Note 1) . . . . .	10,278,000	14,942,000		
Receivables:—				
Participants:				
For settlements . . . . .	44,950,000	141,876,000		
For services . . . . .	20,012,000	15,491,000		
Dividends, interest, and other (Note 4) . . . . .	376,244,000	61,159,000		
Deferred income taxes and prepaid expenses . . . . .	6,492,000	4,048,000		
Equipment and leasehold improvements, less accumulated depreciation of \$24,428,000 in 1986 and \$18,456,000 in 1985 (Notes 1 and 7) . . . . .	36,487,000	32,030,000		
Leased property under capital leases, less accumulated amortization of \$6,906,000 in 1986 and \$9,009,000 in 1985 (Notes 1 and 8) . . . . .	1,414,000	2,265,000		
Contributions to Participants Fund, callable on demand (Note 3) . . . . .	197,990,000	194,288,000		
	<b>\$2,928,279,000</b>	<b>\$1,622,119,000</b>		
			<b>Liabilities and stockholders' equity:</b>	
			Liabilities:—	
			Drafts payable (Note 1) . . . . .	\$ 899,263,000
			Accounts payable and accrued expenses (Note 5) . . . . .	25,014,000
			Payable to Participants:	
			For refunds . . . . .	7,053,000
			On settlements . . . . .	18,921,000
			On receipt of securities . . . . .	48,714,000
			Dividends and interest received (Note 4) . . . . .	392,897,000
			Financing arrangements, including \$4,507,000 in 1986 and \$4,019,000 in 1985 due within one year (Note 7) . . . . .	14,135,000
			Obligations under capital leases, including \$969,000 in 1986 and \$955,000 in 1985 due within one year (Note 8) . . . . .	3,439,000
				<b>2,709,338,000</b>
			Participants Fund (Note 3):	
			Deposits received . . . . .	5,712,000
			Contributions callable on demand . . . . .	194,288,000
				<b>200,000,000</b>
			Stockholders' equity:	
			Capital stock—authorized, issued, and outstanding, 18,500 shares of \$100 par value . . . . .	1,850,000
			Surplus . . . . .	950,000
			Undivided profits . . . . .	9,883,000
				<b>12,683,000</b>
				<b>\$1,622,119,000</b>

The accompanying notes are an integral part of the financial statements.

The Depository Trust Company  
Statement of Revenues and Expenses  
and Undivided Profits

	For the years ended December 31,	
	1986	1985
<b>Revenues:</b>		
Services to Participants . . . . .	<b>\$200,163,000</b>	\$154,894,000
Interest income . . . . .	<b>66,604,000</b>	66,969,000
	<b>266,767,000</b>	221,863,000
Less—Refunds to Participants (Note 2) . . . . .	<b>74,335,000</b>	58,123,000
	<b>192,432,000</b>	163,740,000
<b>Expenses:</b>		
Employee costs (Note 5) . . . . .	<b>108,685,000</b>	89,625,000
Rent, maintenance, and utilities . . . . .	<b>22,358,000</b>	20,360,000
Data processing rentals and supplies . . . . .	<b>14,746,000</b>	14,345,000
Professional and other services . . . . .	<b>12,455,000</b>	10,301,000
Depreciation and amortization . . . . .	<b>6,845,000</b>	6,478,000
Interest (Notes 7 and 8) . . . . .	<b>1,617,000</b>	2,350,000
Other expenses (Note 6) . . . . .	<b>23,468,000</b>	16,224,000
	<b>190,174,000</b>	159,683,000
Excess of revenues over expenses and refunds . . . . .	<b>2,258,000</b>	4,057,000
Undivided profits, beginning of year . . . . .	<b>9,883,000</b>	5,826,000
Undivided profits, end of year . . . . .	<b>\$ 12,141,000</b>	\$ 9,883,000

The accompanying notes are an integral part of the financial statements.

The Depository Trust Company  
Statement of Changes in Financial Position

	For the years ended December 31,	
	1986	1985
<b>Financial resources were provided by:</b>		
Operations:		
Excess of revenues over expenses and refunds . . . . .	\$ 2,258,000	\$ 4,057,000
Charges (credits) not affecting resources—		
Depreciation and amortization . . . . .	6,845,000	6,478,000
Provision for uncollectible dividend receivables . . . . .	4,367,000	1,440,000
Pension and deferred compensation . . . . .	557,000	1,743,000
Deferred taxes . . . . .	<b>(1,315,000)</b>	<b>(2,002,000)</b>
Resources provided from operations . . . . .	<b>12,712,000</b>	11,716,000
Increase in drafts payable . . . . .	<b>1,143,539,000</b>	523,932,000
Increase in payable to Participants . . . . .	<b>154,674,000</b>	78,605,000
Decrease in receivable from Participants . . . . .	<b>92,405,000</b>	
Increase in accounts payable and accrued expenses . . . . .	<b>5,286,000</b>	3,561,000
Financing and capital lease obligations incurred . . . . .	<b>679,000</b>	230,000
Increase in Participants Fund . . . . .	<b>4,000,000</b>	251,000
	<b>1,413,295,000</b>	<b>618,295,000</b>
<b>Financial resources were used for:</b>		
Increase in dividends, interest and other receivables . . . . .	<b>319,115,000</b>	35,837,000
Purchase of equipment and leasehold improvements . . . . .	<b>10,451,000</b>	6,221,000
Financing and capital lease payments . . . . .	<b>5,170,000</b>	4,606,000
Increase in receivable from Participants . . . . .		137,922,000
Increase in contributions to Participants Fund and other, net . . . . .	<b>4,831,000</b>	<b>(12,000)</b>
	<b>339,567,000</b>	<b>184,574,000</b>
Net increase in cash and money market accounts, repurchase agreements and U.S. Government securities during the year . . . . .	<b>1,073,728,000</b>	433,721,000
Cash and money market accounts, repurchase agreements and U.S. Government securities, beginning of year . . . . .	<b>1,170,962,000</b>	737,241,000
Cash and money market accounts, repurchase agreements and U.S. Government securities, end of year . . . . .	<b>\$2,244,690,000</b>	<b>\$1,170,962,000</b>

*The Depository Trust Company  
Notes to Financial Statements*

*December 31, 1986 and 1985*

**Note 1 — Summary of Significant Accounting Policies**

**(a) Securities on deposit**

Securities held by the Company for Participants 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 five to eight years), using principally accelerated methods. Leasehold improvements are amortized on the straight-line method over the lives of the related leases or the useful lives of the improvements, whichever is less.

**(c) Capital leases**

Leased property under capital leases consists principally of data processing equipment and related facilities. These assets are amortized using primarily accelerated methods over the lease terms or asset lives, as applicable, and interest expense is accrued on the basis of the outstanding lease obligations.

**(d) Pension plan**

The Company has a defined noncontributory benefit pension plan covering substantially all full-time operational, professional, administrative and other employees. Plan benefits are based on a formula percentage of annual earnings for each year of continuous participation. The Company's funding policy is to contribute annually the maximum amount that can be deducted for federal income tax purposes. Effective January 1, 1986, the Company adopted Statement of Financial Accounting Standards (FAS) No. 87, "Employers' Accounting for Pensions." The accounting policy under FAS No. 87 and the effect of this change are discussed in Note 5.

**(e) Short-term investments**

Repurchase agreements represent U.S. Government and U.S. Government Agency securities purchased under agreements to resell at predetermined 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.

The Company invests available federal funds in repurchase agreements and money market accounts and at the same time makes disbursements against such in clearing-house funds. The resulting book overdrafts are included in drafts payable and are eliminated the next business day when the repurchase agreements and money market accounts are converted back to cash.

**(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, when available, under the flow-through method as a reduction of the income tax provision when the property is placed in service.

**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, 1986, New York Stock Exchange, Inc. owned approximately 34% of the capital stock of the Company, with the remainder owned by the American Stock Exchange, National Association of Securities Dealers and 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 all of its Participants each year revenues in excess of current and anticipated needs. In 1986, this refund amounted to \$39,050,000 (1985—\$11,750,000). The Board of Directors also adopted an additional refund policy to provide for a monthly refund to Participants of income earned from the overnight investment of cash dividend and corporate interest and reorganization payments to the Company for Participants, reduced by certain related expenses. Such net monthly refunds totaled \$35,285,000 in 1986 (1985—\$46,373,000).

### 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 — 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 and interest on bearer securities which it distributes to its Participants for the owners of the securities. Amounts received on registered securities withdrawn before the record date but not transferred from the name of the Company's nominee cannot be distributed unless claimed by the owners of the securities through a Participant or other financial institution. At December 31, 1986, cash dividends and interest payable amounted to \$482,021,000, of which \$240,838,000 was awaiting distribution to Participants and \$241,183,000 was held pending claim on behalf of the record date owners of the applicable securities. Stock dividends payable and unclaimed are not recorded in the accompanying financial statements. Unclaimed cash and stock dividends and corporate interest received prior to July 1, 1983 have been transferred to New York State in accordance with abandoned property laws.

Cash dividends and interest receivable at December 31, 1986 amounted to \$375,664,000 (1985—\$59,099,000) and have been reduced by allowances of \$2,585,000 (1985—\$1,267,000) for possible losses. Stock dividends receivable are not recorded in the accompanying financial statements.

### Note 5 — Pension Plan

Effective January 1, 1986, the Company adopted Statement of Financial Accounting Standards (FAS) No. 87, "Employers' Accounting for Pensions." The adoption of FAS No. 87 is required during 1987, though earlier adoption was encouraged. As a result of the Company's election to adopt this accounting principle in 1986, pension costs were reduced by \$1,746,000. Pension costs charged to expense in 1985 were \$1,460,000 and comprised normal costs and amortization over 10 years of actuarial gains and losses.

The following table sets forth the plan's funded status and amounts recognized in the Company's statement of condition at December 31:

	1986	1985
Plan assets at fair value, primarily equity securities and an immediate participation guarantee contract . . . . .	<u>\$25,761,000</u>	<u>\$22,623,000</u>
Accumulated benefit obligation for service rendered:		
Vested . . . . .	11,509,000	8,036,000
Non-vested . . . . .	<u>1,464,000</u>	<u>910,000</u>
	<u>12,973,000</u>	8,946,000
Additional amounts related to projected compensation increases . . . . .	<u>6,743,000</u>	5,733,000
Projected benefit obligation for services rendered . . . . .	<u>19,716,000</u>	<u>14,679,000</u>
Plan assets in excess of projected benefit obligation . . . . .	6,045,000	7,944,000
Unrecognized net asset existing at the date of initial application of FAS No. 87 . . . . .	(12,050,000)	(12,854,000)
Unrecognized net loss from past experience different from that assumed and effects of changes in assumptions . . . . .	<u>1,102,000</u>	_____
Unfunded accrued pension cost included in accounts payable and accrued expenses . . . . .	<u>(\$ 4,903,000)</u>	<u>(\$ 4,910,000)</u>

Net pension costs for 1986 included the following components:

Service cost—benefits earned during the period . . . . .	\$1,896,000
Interest cost on projected benefit obligation . . . . .	1,417,000
Actual return on assets . . . . .	(3,458,000)
Net amortization and deferral . . . . .	<u>138,000</u>
Net periodic pension cost . . . . .	<u>(\$ 7,000)</u>

The discount rate used in determining the actuarial present value of the projected benefit obligation was 8.50% (1985—9.75%). The assumed rate of future compensation levels was based on anticipated inflation and merit increases. The expected long-term rate of return on assets was 11.25%. The unrecognized net asset at January 1, 1986 is being amortized over 16 years.

### Note 6 — Income Taxes

Income taxes are included in other expenses. The net income tax provision for 1986 and 1985 is summarized as follows:

	1986	1985
<b>Current:</b>		
Federal .....	<b>\$1,969,000</b>	\$2,839,000
Investment tax credits .....	<b>(467,000)</b>	(809,000)
State and local .....	<b>555,000</b>	915,000
<b>Deferred:</b>		
Federal .....	<b>(698,000)</b>	(757,000)
Investment tax credits .....	<b>(364,000)</b>	(927,000)
State and local .....	<b>(253,000)</b>	(318,000)
	<b><u>\$ 742,000</u></b>	<b><u>\$ 943,000</u></b>

The primary difference between pretax accounting income and taxable income is related to provisions for possible losses on cash dividends and interest receivable in 1986 and to pension expense in 1985.

### Note 7 — Financing Arrangements

The Company has financing arrangements totaling \$10,599,000, of which \$4,096,000 is collateralized by leasehold improvements and equipment with comparable book value and \$6,503,000 is unsecured. The obligations are being repaid in monthly installments. The interest rate applicable to approximately \$5,234,000 of such obligations is fixed at a weighted annual rate of 10.4%, while \$1,706,000 bears interest at the prime rate and \$3,659,000 bears interest, based upon periodic elections by the Company, at either the prime rate or the London interbank offered rate plus .375%.

Aggregate maturities of these financing arrangements are summarized as follows:

Year ending December 31:	
1987 .....	\$ 4,507,000
1988 .....	3,762,000
1989 .....	973,000
1990 .....	985,000
1991 .....	<u>372,000</u>
Total financing arrangements .....	<b><u>\$10,599,000</u></b>

The Company also has available short-term lines of credit of \$5,000,000 with each of two commercial banks at rates approximating the prime rate. These lines were not utilized during 1986.

### Note 8 — Leases and Other Commitments

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, 1986:

Year ending December 31:	
1987 .....	\$1,258,000
1988 .....	1,229,000
1989 .....	389,000
1990 .....	<u>60,000</u>
Total minimum lease payments .....	2,936,000
Less—Amount representing interest .....	<u>452,000</u>
Present value of net minimum lease payments (including current installments of \$969,000) .....	<b><u>\$2,484,000</u></b>

Operating leases—The Company leases its office space and certain data processing equipment under long-term operating leases. Such leases for office space provide for rental escalations subsequent to 1986.

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, 1986:

Year ending December 31:	
1987 .....	\$ 23,400,000
1988 .....	20,228,000
1989 .....	15,429,000
1990 .....	13,601,000
1991 .....	10,913,000
1992–2002 .....	<u>69,306,000</u>
Total minimum lease payments .....	<b><u>\$152,877,000</u></b>

Rent expense in 1986 was \$15,620,000 (1985—\$15,036,000) for office space and \$12,475,000 (1985—\$11,988,000) for data processing equipment.

Other commitments—At December 31, 1986, the Company was in the process of renewing a lease covering a substantial portion of its office space. The rental payments associated with this lease are expected to approximate \$8,000,000 annually for each of the next 10 years. The above table of minimum rental payments includes \$1,387,000 in 1987 for this space, representing rental payments required prior to the expiration date of the current lease in April.

The Company was also constructing an uninterrupted power supply system supported by two diesel generators. Equipment and leasehold improvements include approximately 25% of the system's total estimated cost of \$6,000,000.



## PARTICIPANTS†

### Banks (174)

Advisory Bank & Trust Company  
Amalgamated Bank of New York  
American Security Bank, N.A.  
AmeriTrust Company  
AmSouth Bank, N.A.  
Bank IV Topeka, National Association  
Bank IV Wichita, National Association  
Bank Leumi Trust Company of New York  
Bank of America National Trust  
and Savings Association  
Bank of Bermuda International Limited  
Bank of Boston Connecticut  
Bank of California (The)  
Bank of Montreal, New York Branch  
Bank of New England, N.A.  
Bank of New York (The)  
Bank of Nova Scotia (The), New York Agency  
Bank of Oklahoma, N.A.  
Bank of Tokyo Trust Company (The)  
Bank of Virginia Trust Company  
Bank One Trust Company, N.A.  
Bankers Trust Company  
Barclays Bank PLC  
Barnett Banks Trust Company, N.A.  
Bessemer Trust Company  
Boston Safe Deposit and Trust Company  
Brown Brothers Harriman & Co.  
California First Bank  
Canadian Imperial Bank of Commerce—  
New York Agency  
Centerre Bank, N.A.  
Central Bank of Denver  
Central Bank of the South  
Central Fidelity Bank, N.A.  
Central Trust Company  
Chase Lincoln First Bank, N.A.  
Chase Manhattan Bank, N.A. (The)  
Chemical Bank  
Citibank, N.A.  
Citizens and Southern National Bank (The)  
Citizens Commercial & Savings Bank  
Citizens Fidelity Bank and Trust Company  
City National Bank  
Citytrust  
Commerce Bank of Kansas City, N.A.  
Commercial National Bank of Peoria  
Connecticut Bank and Trust Company (The)  
Connecticut National Bank (The)

Continental Illinois National Bank and Trust  
Company of Chicago  
Custodial Trust Company  
Daiwa Bank, Limited (The), New York Agency  
Denver National Bank  
Dominion Trust Company  
Equitable Bank, National Association  
Fidelity Bank (The)  
Fiduciary Trust Company of Boston  
Fiduciary Trust Company of New York  
Fifth Third Bank (The)  
First American Bank, N.A.  
First City National Bank of Houston  
First Fidelity Bank, National Association,  
New Jersey  
First Interstate Bank of California  
First Interstate Bank of Denver, N.A.  
First Interstate Bank of Oregon, N.A.  
First Jersey National Bank (The)  
First Kentucky Trust Company (The)  
First National Bank and Trust Company  
of Tulsa (The)  
First National Bank in Palm Beach  
First National Bank of Atlanta (The)  
First National Bank of Boston (The)  
First National Bank of Chicago (The)  
First National Bank of Cincinnati  
First National Bank of Colorado Springs (The)  
First National Bank of Maryland (The)  
First National Bank of Minneapolis  
First National Bank of Omaha  
First Pennsylvania Bank, N.A.  
First Tennessee Bank N.A. Memphis  
First Trust Company, Inc.  
First Trust Corporation  
First Union National Bank  
First Union National Bank of Florida  
Fleet National Bank  
Florida National Bank  
Fort Wayne National Bank  
Framingham Trust Company††  
French American Banking Corporation  
Frost National Bank  
Hong Kong and Shanghai Banking  
Corporation (The)  
Huntington National Bank (The)  
Imperial Trust Company  
Indiana National Bank (The)

Industrial Bank of Japan Trust Company (The)  
InterFirst Bank Dallas, N.A.  
International Central Bank & Trust Corporation  
Investors Bank and Trust Company  
Irving Trust Company  
Kellogg-Citizens National Bank  
Key Trust Company  
Landmark Union Trust Bank  
LaSalle National Bank  
Liberty National Bank and Trust Company  
of Louisville  
Liberty National Bank and Trust Company  
of Oklahoma City (The)  
Lincoln National Bank & Trust Company  
of Fort Wayne  
Lloyds Bank Plc  
M&I Marshall & Ilsley Bank  
Manufacturers and Traders Trust Company  
Manufacturers Hanover Trust Company  
Manufacturers National Bank of Detroit  
Marine Midland Bank, N.A.  
Marine Trust Company, N.A.  
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  
Michigan National Bank—Grand Rapids  
Michigan National Bank of Detroit  
Midlantic National Bank  
Morgan Guaranty Trust Company of New York  
NCNB National Bank of North Carolina  
National Bank of Detroit  
National Bank of Washington (The)  
National City Bank  
National Savings and Trust Company  
National Westminster Bank PLC  
National Westminster Bank USA  
New Jersey National Bank  
Northern Trust Company (The)  
Norwest Bank Minneapolis, N.A.  
Norwest Bank of Casper, N.A.  
Old Kent Bank and Trust Company  
Peoples National Bank of Washington  
Philadelphia National Bank (The)  
Proctor Bank††  
Provident National Bank

Rainier National Bank  
Republic National Bank of New York  
RepublicBank Dallas, N.A.  
Rhode Island Hospital Trust National Bank  
Riggs National Bank of Washington, D.C. (The)  
Rockland Trust Company††  
Royal Bank and Trust Company (The)  
Santa Barbara Bank & Trust  
Santwa Bank California  
Savings Banks Trust Company  
Schroder (J. Henry) Bank & Trust Company  
Seattle—First National Bank  
Security Pacific National Bank  
Shawmut Bank of Boston, N.A.  
Society National Bank  
Sovran Bank, N.A.  
State Street Bank and Trust Company  
Stock Yards Bank and Trust Company  
Summit Bank  
Swiss Bank Corporation—New York Branch  
Texas American Bank/Fort Worth  
National Association  
Texas Commerce Bank National Association  
Toledo Trust Company (The)  
Toronto Dominion Bank (The)—  
New York Branch  
Trust Company Bank  
Trust Services of America, Inc.  
Union Bank, Los Angeles  
Union Bank of Switzerland  
Union Planters National Bank  
Union Trust Company  
United Bank of Denver, National Association  
United Missouri Bank of Kansas City, N.A.  
United States Trust Company of New York  
United Virginia Bank  
Valley National Bank of Arizona  
Wachovia Bank & Trust Company, N.A.  
Wells Fargo Bank, National Association  
Wheeling Dollar Savings & Trust Co.  
Wilmington Trust Company  
Zions First National Bank

†As of December 31, 1986

††Boston Stock Exchange Sponsored Account

## Broker-Dealers (353)§

- ABD Securities Corporation  
Adams, Harkness & Hill, Inc.  
Adler, Coleman & Co., Inc.  
Advest, Inc.  
Agora Securities, Inc.  
Alger (Fred) & Company, Incorporated  
Allen & Company Incorporated  
Alpine Associates  
American Investment Group, Inc.  
American Securities Corporation  
Andras Canavest Hetherington Limited\*  
Arnhold and S. Bleichroeder, Inc.  
Asiel & Co.  
B&S Financial Services  
B.E.S. Partners  
BHF Securities Corporation  
BSE Specialist Account\*  
Bache Securities Inc.\*  
Baer (Julius) Securities Inc.  
Baird, Patrick & Co., Inc.  
Baird (Robert W.) & Co. Incorporated  
Barr Brothers & Co., Inc.  
Barrett & Company  
Bear, Stearns & Co. Inc.  
Beare Brothers & Co., Inc.\*  
Benton & Company  
Bernstein (Sanford C.) & Co., Inc.  
Blair (William) & Company  
Blinder, Robinson & Co., Inc.\*  
Bodell, Overcash Anderson & Co., Inc.\*  
Boettcher & Company, Inc.  
Bradford (J. C.) & Co.  
Branch, Cabell & Co.  
Brokerage Clearance Services Inc.  
Brounoff, Claire, & Co., Inc.  
Brown & Company Securities Corporation\*  
Brown (Alex.) & Sons, Inc.  
Brown, Lisle/Cummings, Inc.  
Buell Securities Corp.\*  
Bunting (Alfred) & Co. Limited\*  
Burgess Graham Securities Limited\*  
Burke (P.R.) & Co.  
Burns Fry and Timmins Inc.  
Burns Fry Limited\*  
Burns, Pauli & Co., Inc.  
Cable House & Ragen  
Cantella & Company (Retail)\*  
Cantor, Fitzgerald & Co.  
Cantor (S.B.) & Co., Inc.\*  
Capital Shares, Inc.\*  
Carolina Securities Corporation  
Carr & Thompson, Inc.\*  
Carr (Robert C.) & Co., Inc.\*  
Carr Securities Corporation  
Carroll McEntee & McGinley Securities, Inc.  
Cazenove Incorporated  
Challenge Securities Inc.  
Chicago Corporation (The)  
Clayton, Polleys & Co.\*  
Conklin, Cahill & Co.  
Connor, Clark & Co. Limited\*  
Cosentino & DeFelice, Inc.\*  
Coughlin and Company, Inc.\*  
County Securities Corporation USA  
Cowen & Co.  
Craig-Hallum, Inc.  
Craigie Incorporated  
Cresvale International, Limited  
Dain Bosworth Incorporated  
Daiwa Securities America, Inc.  
Darier Management Corporation, Inc.\*  
Davenport & Co. of Virginia, Inc.  
David Lerner Associates, Inc.  
Davidson Partners Limited\*  
Davis (Shelby Cullom) & Co.  
de Cordova, Cooper & Co.  
Deacon (F.H.), Hodgson Inc.\*  
Deltec Securities Corporation\*  
Deutsche Bank Capital Corporation  
Diamant Investment Corp.\*  
Dillon, Read & Co. Inc.  
Disnat Investment Inc.\*  
Doft & Co., Inc.  
Dominick Corporation of Canada Limited\*  
Dominick Investor Services Corporation  
Dominion Securities Pitfield Inc.  
Dominion Securities Pitfield Limited\*  
Donaldson, Lufkin & Jenrette Securities Corporation  
Drexel Burnham Lambert Incorporated  
Easton & Co.  
Eberstadt Fleming, Inc.  
Edwards (A.G.) & Sons, Inc.  
Einhorn & Co.  
Engler & Budd Company\*  
Eppler, Guerin & Turner, Inc.  
Equity Securities Trading Co., Inc.\*  
Ernst & Co.  
Essex Company  
EuroPartners Securities Corp.  
Evans & Co., Inc.  
Exchange Services, Inc.\*  
Execution Services Incorporated  
Fagenson & Co., Inc.  
Fahnestock & Co., Inc.  
Fairweather (George R.) Securities, Inc.  
Fechtor, Detweiler & Co., Inc.\*  
Fernandez, Bartsch & Mirra  
Financial Clearing & Services Corporation  
First Albany Corporation  
First Birmingham Securities Corporation\*  
First Boston Corporation (The)  
First Canada Securities Corporation\*  
First Financial Group Inc.\*  
First Jersey Securities, Inc.  
First Manhattan Co.  
First Marathon Securities Limited\*  
First of Michigan Corporation\*  
First Options of Chicago, Inc.\*  
First Southwest Company  
First Wachovia Brokerage Service Corporation  
Fossett Corporation\*  
Frank (Walter N.) & Co.  
Frankel (Wm. V.) & Co., Inc.\*  
Freeman Securities Company, Inc.  
Freeman Welwood & Co., Inc.  
Fried (Albert) & Co.  
Fundamental Corporate Bond Brokers, Inc.  
Gage-Wiley & Company, Inc.\*  
Gant (J.W.) & Associates, Inc.\*  
Gardiner Group Stockbrokers, Inc.\*  
Geoffrino, Leclerc Inc.\*  
Gintelco, Inc.  
Goldman, Sachs & Co.  
Gordon & Co.  
Gordon Capital Corporation  
Gowell Securities Corporation (Retail)\*  
Gradison & Company Incorporated  
Greenfield Partners  
Gruss (Oscar) & Son Incorporated  
Guardian Trust Company\*  
Halcyon Investments  
Hanifen, Imhoff, Inc.\*  
Heitner Corporation (The)\*  
Henderson Brothers, Inc.  
Herzog, Heine, Geduld, Inc.  
Hill, Thompson, Magid & Co., Inc.\*  
Hilliard (J.J.B.), Lyons (W.L.), Inc.  
Hirshon, Roth & Co.  
Hopper Soliday & Co., Inc.  
Hough (William R.) & Co.  
Howard, Weil, Labouisse, Friedrichs Incorporated  
Hummer (Wayne) & Co.  
Hutchinson, Shockey, Erley & Co.  
Hutton (E.F.) & Company Inc.  
IFB Managing Partnership, L.P.  
Icahn & Co., Inc.  
Illinois Company Incorporated (The)  
Ingalls & Snyder  
Instant Funds Incorporated\*  
Interstate Securities Corporation  
InvestNet Corporation  
Investors Discount Corporation\*  
Jacobson (Benjamin) & Sons  
Jamie Securities Co.  
Janney Montgomery Scott Inc.  
Jefferies & Company, Inc.  
Jesup & Lamont Clearing Corp. Inc.  
Johnson, Lane, Space, Smith & Co., Inc.  
Johnston, Lemon & Co., Inc.\*  
Jones (Edward D.) & Co.  
Josephthal & Co. Incorporated  
Kalb, Voorhis & Co.  
Kaufmann, Alsborg & Co., Inc.  
Kavanevsky & Associates\*  
Kellner, DiLeo & Co.  
Kemper Sales Company  
Kenny (J.J.) & Co., Inc.\*  
Kidder, Peabody & Co. Incorporated  
Kimball & Cross\*  
King (C.L.) & Associates Inc.  
Koonce Securities, Inc.\*  
Krieger (Henry) & Co.  
LaBranche & Co.  
Lafer Amster & Co.  
Lasker, Stone & Stern  
Lawrence (Cyrus J.) Incorporated  
Lawrence, O'Donnell & Co.  
Lazard Frères & Co.  
Lebenthal & Co., Inc.  
Legg Mason Masten Inc.

Legg Mason Wood Walker, Inc.  
 Levesque, Beaubien Inc.\*  
 Lewco Securities Corp.  
 Lewis (S.B.) & Company  
 Linsco Corporation\*  
 Loewen Ondaatje, McCutcheon  
 & Company Ltd.\*  
 MKI Securities Corp.  
 Mabon, Nugent & Co.  
 MacAllaster Pitfield Mackay, Inc.  
 MacDougall, MacDougall & MacTier, Inc.\*  
 Madoff (Bernard L.)  
 Marcus & Company  
 Marcus Schloss & Co., Inc.  
 Marks (Carl) & Co., Inc.  
 Mayer & Schweitzer, Inc.  
 McCourtney-Breckenridge & Company\*  
 McDonald & Company Securities, Inc.  
 McLeod Young Weir Incorporated  
 McLeod Young Weir Limited\*  
 McNeil Mantha Inc.\*  
 Meehan (M.J.) & Company  
 Mericka & Co., Inc.\*  
 Merit Investment Corporation\*  
 Merrill Lynch, Pierce, Fenner & Smith  
 Incorporated  
 Merrimack Valley Investment Inc.\*  
 Mesirov & Company Incorporated  
 Metropolitan Securities  
 Midland Doherty Inc.  
 Midland Doherty Limited\*  
 Molson Rousseau Inc.\*  
 Montgomery Securities  
 Morgan, Keegan & Company, Inc.  
 Morgan, Ohmstead, Kennedy & Gardner,  
 Incorporated  
 Morgan Stanley & Co. Incorporated  
 Muller & Company, Inc.  
 Murphey, Marseilles, Smith & Nammack  
 Murphy & Durieu  
 NB Clearing Corporation  
 National Financial Services Corporation  
 Neuberger & Berman  
 New Japan Securities International, Inc.  
 Newbridge Securities Inc.  
 Newhard, Cook & Co. Incorporated  
 Nick, Lyden & Co.  
 Nikko Securities Co. International, Inc. (The)

Nippon Kangyo Kakumaru International Inc.  
 Nomura Securities International, Inc.  
 Nuveen (John) & Co. Incorporated  
 O'Connor & Associates  
 O'Connor Securities  
 Odlum Brown Limited\*  
 Offerman & Co., Inc.\*  
 Oftring & Co., Inc.\*  
 Olde Discount Corporation  
 Oppenheimer & Co., Inc.  
 Osler Inc.\*  
 Outwater & Wells, Inc.\*  
 Pacific Brokerage Services, Inc.  
 Paine Webber Incorporated  
 Parker (S.C.) & Co., Inc.\*  
 Payson (H.M.) & Co.\*  
 Pemberton Houston Willoughby Incorporated\*  
 Pforzheimer (Carl H.) & Co.  
 Pictect (Canada) and Company Limited\*  
 Piper, Jaffray & Hopwood, Incorporated  
 Pittock Financial Corporation\*  
 Prescott, Ball & Turben, Inc.  
 Prudential-Bache Securities Inc.  
 Purcell, Graham & Co., Inc.  
 Q&R Clearing Corporation  
 Quinn (E.J.) & Co., Inc.\*  
 RFG Options  
 RSF Partners  
 Raney (T.J.) & Sons Inc.  
 Rauscher Pierce Refsnes, Inc.  
 Raymond, James & Associates, Inc.  
 Reaves (W.H.) & Co., Inc.  
 Refco Securities, Inc.  
 Regional Clearing Corp.  
 Reich & Co., Inc.  
 Richardson Greenshields of Canada, Ltd.\*  
 Richardson Greenshields Securities, Inc.  
 Rinson (M.) & Co., Inc.  
 Robb, Peck, McCooley Clearing Corporation  
 Robertson, Colman & Stephens  
 Rodman & Renshaw, Inc.  
 Roney & Co.  
 Rothschild (L.F.), Unterberg, Towbin, Inc.  
 Roulston Research Corp.  
 Rowland (R.) & Co., Incorporated  
 Ryan Beck & Co.\*  
 Sage, Ruddy & Co., Inc.  
 Salomon Brothers Inc

Schapiro (M.A.) & Co., Inc.  
 Schwab (Charles) & Co., Inc.\*  
 Scott & Stringfellow, Inc.  
 Seasongood & Mayer\*  
 Seattle-Northwest Securities Corporation  
 Securities Settlement Corporation  
 Seidler Amdec Securities Inc.\*  
 Seligman Securities, Inc.  
 Shaine (H.B.) & Co., Inc.  
 Shatkin Investment Corp.\*  
 Shatkin-Lee Securities Co.  
 Shearson Lehman Brothers Inc.  
 Shearson Lehman Special Securities Incorporated  
 Shelter Rock Securities Corporation\*  
 Simon (I.M.) & Co., Inc.  
 Smith Barney, Harris Upham & Co.,  
 Incorporated  
 Smith, Moore & Co.\*  
 Southwest Securities, Inc.  
 Spear, Leeds & Kellogg  
 Spear Securities, Inc.\*  
 Stanton Securities Corp.\*  
 Steichen (R.J.) & Company\*  
 Stephens, Inc.  
 Stern & Kennedy  
 Sterne, Agee & Leach, Inc.  
 Stifel, Nicolaus & Company Incorporated  
 StockCross, Inc.\*  
 Stoever, Glass & Co., Inc.  
 Stokes, Hoyt & Co.  
 Streicher (J.) & Co.  
 Stuart-James Company Inc.\*  
 Sunrise Capital Corporation\*  
 Swiss American Securities Inc.  
 Swiss Bank Corporation International  
 Securities Inc.  
 Thomson Kernaghan & Co., Ltd.\*  
 Thomson McKinnon Securities Inc.  
 Tompane (A.B.) & Co.  
 Transaction Services, Inc.\*  
 Transatlantic Securities Company  
 Trusteed Funds, Inc.\*  
 Tucker, Anthony & Day (R.L.), Inc.  
 UBS Securities Inc.  
 UMIC, Inc.  
 Underwood Neuhaus & Co., Inc.  
 Universal Securities Corporation  
 Vail Securities Investment, Inc.

Van Kampen Merritt Inc.  
 Viner (Edward A.) & Co., Inc.  
 W&D Securities  
 Wagner Stott Clearing Corp.  
 Wall Street Clearing Company  
 Walsh, Greenwood & Co.  
 Walwyn Stodgell Cochran Murray Limited\*  
 Warburg (S.G.), Rowe & Pitman, Akroyd Inc.  
 Weber, Hall, Sale & Associates, Inc.  
 Wechsler & Krumholz, Inc.  
 Wedbush, Noble & Cooke, Inc.\*  
 Weiss, Peck & Greer  
 Wellington (H.G.) & Co. Inc.  
 Wheat, First Securities, Inc.  
 Williams Securities Group, Inc.\*  
 Wilshire Associates\*  
 Windsor Associates  
 Witter (Dean) Reynolds Inc.  
 Wolf & Drizos Corporates, Inc.  
 Wood (Arthur W.) Company\*  
 Wood Gundy Corp.  
 Wood Gundy Inc.\*  
 Yamaichi International (America), Inc.  
 Ziegler Thrift Trading, Inc.\*

## Clearing Agencies (7)

Boston Stock Exchange Clearing Corp.  
 Canadian Depository for Securities Limited (The)  
 Midwest Securities Trust Company  
 National Securities Clearing Corporation  
 Options Clearing Corporation (The)  
 Pacific Securities Depository Trust Company  
 Philadelphia Depository Trust Company

§Excludes some firms with limited activity  
 \*National Securities Clearing Corporation  
 Sponsored Account

## DTC STOCKHOLDERS (135)†

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American Security Bank, N.A.  
American Stock Exchange, Inc.  
AmeriTrust Company  
AmSouth Bank, N.A.  
Arnhold and S. Bleichroeder, Inc.  
Baer (Julius) Securities Inc.  
Bank of America National Trust and Savings Association  
Bank of California (The)  
Bank of Montreal, New York Branch  
Bank of New England, N.A.  
Bank of New York (The)  
Bank One Trust Company, N.A.  
Bankers Trust Company  
Barclays Bank PLC  
Barnett Banks Trust Company, N.A.  
Barrett & Company  
Bear, Stearns & Co. Inc.  
Boettcher & Company, Inc.  
Boston Safe Deposit and Trust Company  
Brounoff, Claire, & Co., Inc.  
Brown (Alex.) & Sons, Inc.  
Brown Brothers Harriman & Co.  
Centerre Bank, N.A.  
Chase Lincoln First Bank, N.A.  
Chase Manhattan Bank, N.A. (The)  
Chemical Bank  
Cincinnati Stock Exchange (The)  
Citibank, N.A.  
Citizens and Southern National Bank (The)  
City National Bank  
Connecticut Bank and Trust Company (The)  
Connecticut National Bank (The)  
Craigie Incorporated  
Denver National Bank  
Donaldson, Lufkin & Jenrette Securities Corporation  
Eberstadt Fleming, Inc.  
Edwards (A.G.) & Sons, Inc.  
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Fiduciary Trust Company of Boston  
First Boston Corporation (The)  
First City National Bank of Houston  
First Fidelity Bank, National Association, New Jersey  
First Interstate Bank of California  
First Interstate Bank of Denver, N.A.  
First Interstate Bank of Oregon, N.A.  
First Jersey National Bank (The)  
First National Bank and Trust Company of Tulsa (The)  
First National Bank of Atlanta (The)  
First National Bank of Boston (The)  
First National Bank of Chicago (The)  
First National Bank of Cincinnati  
First National Bank of Colorado Springs (The)  
First National Bank of Maryland (The)  
First Tennessee Bank N.A. Memphis  
Fleet National Bank  
Fort Wayne National Bank  
Frost National Bank  
Goldman, Sachs & Co.  
Gradison & Company Incorporated  
Gruss (Oscar) & Son Incorporated  
Hough (William R.) & Co.  
Huntington National Bank (The)  
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Irving Trust Company  
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Lafer Amster & Co.  
Leuco Securities Corp.  
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Manufacturers Hanover Trust Company  
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Maryland National Bank  
Mayer & Schweitzer, Inc.  
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Viner (Edward A.) & Co., Inc.  
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Wilmington Trust Company  
Wood Gundy Corp.  
Zions First National Bank

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