National

Securities

Clearing

Corporation

# a tradition of service

Annual

Report

1996

National Securities Clearing Corporation (NSCC), established in 1976, is

the nation's leading provider of centralized clearance, settlement and post-trade information services for equities, bonds and mutual funds transactions to over

1,900 brokers, dealers, banks, mutual funds and other financial organizations.

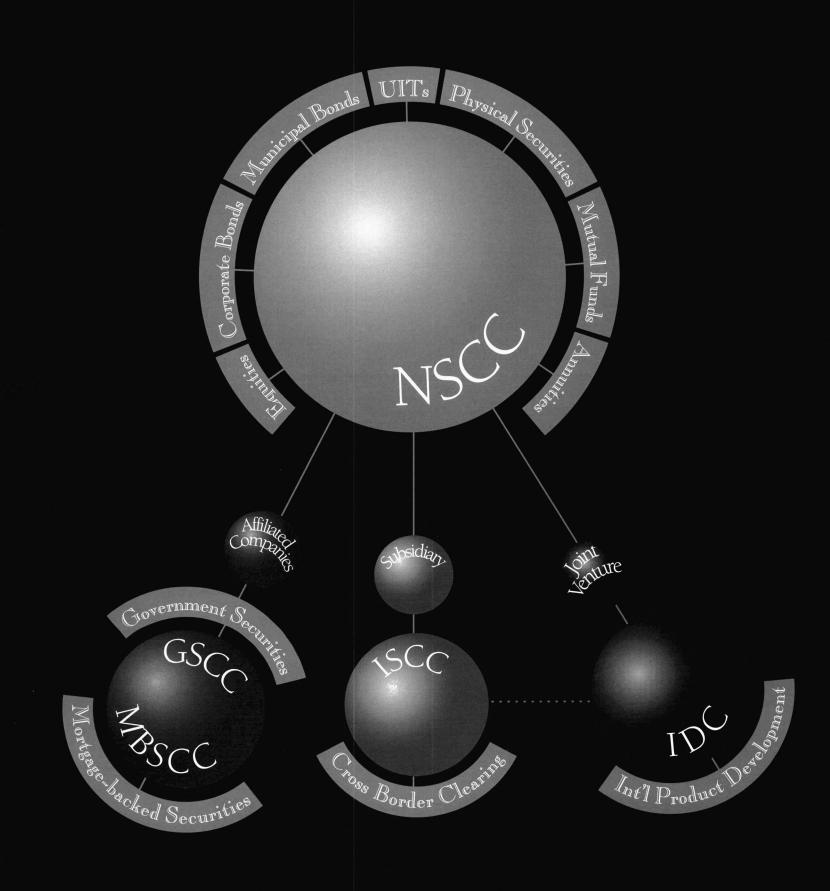
The NSCC Complex includes clearing corporations that are affiliates and subsidiaries of National Securities Clearing Corporation, each supporting a unique segment of the financial services industry but sharing a common charter: to deliver high quality, innovative systems and services that standardize, centralize and automate post-trade processing activities, and increase efficiency, reduce risk, lower costs and foster the financial industry's continued growth.

Government Securities Clearing Corporation (GSCC), an affiliate, clears and settles a broad range of U.S. Government securities, including Treasury bills, bonds, notes, zero coupon securities and repurchase agreements.

MBS Clearing Corporation (MBSCC), an affiliate, is this market's sole provider of clearance, settlement and electronic pool notification services for mortgage-backed securities.

International Securities Clearing Corporation (ISCC), a subsidiary, provides clearance and settlement services to U.S. brokers trading in overseas markets. ISCC remains a separate entity. In 1996, NSCC and The Depository Trust Company created a jointly owned affiliate, International Depository and Clearing LLC (IDC), which is intended to coordinate the international business activities of both organizations.

# The NSCC Complex



# To Our Participants

This year marked a significant milestone for us. It's now 20 years since NSCC was formed. Our theme, a tradition of service, is an effort not only to highlight what we believe is an admirable track record, but to renew our commitment to a philosophy and a set of standards as NSCC's participant base continues to expand.

At NSCC, our efforts have always been pursued quietly, behind the scenes, working collaboratively with the industry to address operational issues that may impact markets and customers. As we look ahead, the dynamic nature of financial markets is once again creating new challenges, new opportunities and new participants for NSCC. Rest assured, we are up to the task—and thrive on the challenge.

Manufacturers of financial products in our industry are rapidly changing to also become distributors. Product distributors are transforming to offer proprietary products. NSCC's role in these changes is to provide the industry with connectivity and processing that enhances efficiency, lowers costs, reduces risk and spurs growth.

Whether the shift is toward the sale of 401(k) mutual funds, annuities or global investments, NSCC, guided by its Board and the industry, has set a broad agenda for the future.

Capacity and risk management in our core business of equities and bonds are two of our highest priorities at NSCC. "the dynamic nature of financial markets is once again creating new challenges, new opportunities and new participants for NSCC."

Considering the enormous growth in market activity last year, the seamless nature of NSCC's post-trade processing capabilities is a testament to the work that goes on here. During 1996, we experienced 96 trading days where volumes processed reached more than a billion shares.

We are pleased to report that our ability to manage expenses prudently, along with record-breaking trading volume, enabled us to return a 51% discount to our members on discountable services in 1996.

Last year, we addressed a number of risk management issues. Early in 1996, we helped the industry move to a Same Day Funds Settlement (SDFS) environment, which brought the equity and bond markets in harmony with other markets. NSCC established its own network of 35 settlement banks, and, because of the advanced planning for SDFS, the transition went very smoothly.

NSCC also initiated several steps in the wake of the Adler Coleman Clearing Corporation insolvency, including recommendations on rules governing short selling, the adoption of new NSCC rules on the posting of collateral for firms dealing in less liquid securities and internal systems changes to enhance our tracking and risk analysis capabilities.

Participation by major clearing corporations and DTC in Phase I of our Collateral Management System (CMS) will play a significant role in furthering the industry's sharing of collateral information for risk management purposes and empowering firms to better manage the allocation of collateral.

On the Year 2000 systems upgrade effort, NSCC has taken a lead role with the SIA's Data Management Division to organize an industry-wide forum of exchanges and utilities that will be meeting through the end of the millennium to ensure a coordinated approach for testing and roll-out. Closer to home, NSCC has completed an assessment of 68 major applications and is working closely with our members in preparing to address changes that are required.

We made considerable progress in 1996 on the development of our Defined Contribution Clearance and Settlement Service (DCC&S), which will provide the connectivity so essential to continued growth in 401(k), 403(b) and other defined contribution transactions. This initiative, which will significantly expand our services and participant base in the mutual fund community, will be launched in the second quarter of 1997.

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Likewise, we will be welcoming insurance carriers to NSCC in 1997, when we introduce our Annuity Processing System (APS). This past six month period has been a good learning experience, as we've worked closely with insurance companies and broker dealers to streamline and automate the processing needed to broaden the distribution network for this popular investment product.

This diversification of product offerings by financial organizations was a key factor in our decision to undertake a major redesign of our Automated Customer Account Transfer Service (ACATS), which started in 1996 and will be completed in two years. ACATS has done a fine job, but firms must be able to transfer more than just the brokerage portion of an account or proprietary mutual funds (through ACATS-Fund/SERV). The new system will provide access for the transfer of accounts between any financial distributors, e.g., broker dealers, banks, mutual funds, insurance carriers.

Closer coordination among industry utilities and depositories remains an important goal. An historic and significant step in this regard was our announcement with DTC in 1996 to form a jointly owned affiliate, International Depository & Clearing LLC (IDC), to bring together

> "In our 20th year, our people provide the continuity and remain the standard bearers of our commitment to service."



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our respective international activities under one umbrella. From a global perspective, IDC will now provide greater coordination on clearance, settlement and custody issues.

During 1996, ISCC has also made great strides, working with the Emerging Markets Traders Association, on the development of the Emerging Markets Clearing Corporation.

Both Government Securities Clearing Corporation (GSCC) and MBS Clearing Corporation (MBSCC) have continued to handle record volumes, while taking steps to expand services and increase their participant base.

We've included highlights of their activities in this annual report, to provide our participants with a fuller understanding of efforts under way across the NSCC complex. Each of these organizations provide more detailed discussions in separate reports. The speed at which change is occurring and the scope of changing industry requirements might seem daunting, but at NSCC we're fortunate in having a very talented Board of Directors that guide and help us build industry consensus. We are also grateful for the support we receive from our participants, who regularly demonstrate their willingness to partner solutions.

In closing, it's important to remember that organizational values like reliability, quality and being customer-driven do not spring from NSCC and SIAC systems. People drive the process. In our 20th year, our people provide the continuity and remain the standard bearers of our commitment to service.

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Melvin B. Taub, *Chairman of the Board* 

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David M. Kelly, ' President and Chief Executive Officer

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erving the needs of the financial services industry requires NSCC to bring an in-depth understanding to industry problems and issues. For the past 20 years, we have been challenged to develop solutions that allow the industry to grow. And, we have met these challenges time and time again.

Our charter is simple - standardize, automate and centralize information processing to reduce risk, increase efficiency and lower costs for the industry.

NSCC, with our subsidiary and affiliates, has earned a reputation for excellence and reliability that is unmatched. Our record over the past two decades has led the industry to increasingly look to NSCC as the logical provider of infrastructure services.

As dynamic forces continue to sweep across the industry, NSCC is developing systems and services that will help our customers adapt to these changes efficiently and effectively. We don't just respond to our customers – we work side-by-side with

them to actively identify issues facing the industry, propose solutions and build a consensus around the most logical and cost-effective answers. We call this process "partnering change."

We maintain contact with our customers daily. We meet informally with them at industry meetings and conferences, and in one-on-one sessions. Our customers serve on special committees that advise us as we develop new services. We conduct surveys to get customer views on what the industry is doing





from left to right Rosaleen Carlin, Account Manager William J. Minogue Participant Services Representative Amanda Yu. Manager Corporate Communications

and where it is headed. And customers form the vast majority of our Board of Directors.

The technology we provide must have maximum operating flexibility, functionality and lower costs. We recognize that our customers vary in terms of size, business segments and technological capabilities, and that we are responsible for serving all

of them. While we are increasingly moving our application systems from batch processing to full interactivity, we continue to support a wide array of computing technologies, including mainframes, client/servers and LAN PC environments. We are also investing in new software development techniques that will result in systems that are faster and less expensive to develop.

We have been and remain a customer-driven organization devoted to quality. As a practice, our fees are directly related to our costs. Our people have broad experience in not only the industry segments we serve, but also in the technology needed to provide that service. Most of all, they listen and understand industry points of view and problems, and deal with those problems in a common sense way that enhances rather than restricts business operations.

NSCC's experience and skills provide a value added resource. We help identify new trends and issues, work with our customers to refine and develop an approach, and create a solution that helps foster continued business growth for the benefit of our participants and the entire financial services industry.

### Core Services

he core of NSCC's business for the past 20 years has been its clearance and settlement services for equities and bonds.

Each year, we have dealt with increasing record volumes generated by trading on the New York Stock Exchange, American Stock Exchange, NASDAQ marketplace and regional exchanges. Last year was no exception, with major volume increases in every marketplace. Our

from left to right Karin Marshall. Participant Services Representative John D. Fitzgerald, VP. Marketing Robert M.Yodice, Director, Systems

principal responsibility is to ensure the systems capacity to handle whatever volume flow is experienced and to reduce the cost and risk involved in those transactions.

On the NYSE, trading volume exceeded 450 million shares for 28% of the trading days in 1996, compared with 2% in the prior year. NASDAQ exceeded 450 million shares on 87 percent of the trading days last year, versus 29% in 1995. The Amex market also hit a new all-time record, trading 5.6 billion shares during the year, up almost 11 percent from its previous high in 1995. For NSCC, this translates into a combined average daily trading volume from all markets of almost 979 million shares.

NSCC reports its clearance and settlement activity as transactions processed, since each transaction may involve a varying number of shares traded. What was once a peak volume for NSCC in 1995, has now become a daily average in 1996, with over

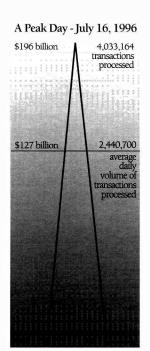
> 2.4 million transactions processed each day. The average daily value of these transactions was over \$127 billion. Since trading volumes are unpredictable, NSCC's Continuous Net Settlement (CNS) system must have the capacity to handle not only routine but unanticipated

spikes in volume. Currently, that capacity is a trading day in excess of 2 billion shares in all markets or twice the volume ever experienced by NSCC.

NSCC plays an equally critical role in helping the industry minimize risk by significantly reducing financial obligations requiring settlement. For example, on a peak day in 1996 the value of transactions climbed to \$196 billion. Through our CNS system, buy and sell obligations were netted down, reducing settlement obligations from \$196 billion to \$9 billion.

Efforts to reduce risk and streamline processing continued to be high priorities in 1996. The implementation of Same Day

"Our principal responsibility is to ensure the systems capacity to handle whatever volume flow is experienced"

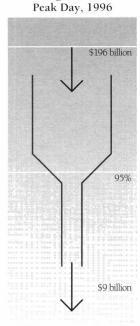


A Peak Volume Day in 1996 compared with NSCC's Daily Average

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Funds (SDFS) last February, by NSCC, fulfilled an industry commitment to minimize the flow of settlement dollars through the banking system. The risk of overnight failure by a bank which certified our participant's settlement obligations was eliminated and, in a joint NSCC and DTC effort, credit risk exposure for NSCC was eliminated with the imposition of collateralization controls at DTC. NSCC established a 35 member settling bank network to support SDFS and the transition for firms was virtually seamless.

During 1996, Phase I of NSCCs Collateral Management System (CMS) was nearly completed with participation by the vast majority of all major U.S. clearing corporations and The Depository Trust Company (DTC).



Netting Factor for

NSCC reduces or nets the total number of financial obligations requiring settlement. Phase I of CMS provides the industry, both clearing organizations and their participants, with centralized, real-time continuous views of a member's total collateral position at each of these organizations. CMS in Phase II will introduce interactive messaging and automated excess cash management to give participants a tool to help them manage the allocation of their collateral.

The development of CMS has also prompted participating clearing entities to begin considering the adoption of more uniform rules and procedures regarding information sharing, clearing fund/margin requirements and underlying collateral. In addition, NSCC entered into excess collateral sharing agreements with MBSCC and GSCC in the event of the default of a common member.

NSCC enhanced our Fixed Income Transaction System (FITS) this past June, to add time-of-trade information, in accordance with requirements from the Municipal Securities Rulemaking Board (MSRB). The time-of-trade information is now required for most interdealer transactions in municipal bonds, and may be included at dealer option on corporate bonds and Unit Investment Trust (UIT) transactions. The information allows the MSRB to improve market surveillance and enforcement of its rules governing such transactions.

> from left to right Michael M. Molloy, VP, Marketing Joseph E Karcich, SVP, Director of Operations Prudential Securities Nicholas M. Gialanella, VP, Marketing

from left to right Robert Goodman, Manager Information Services Samuel Ben-Haim, Director of LAN Technology Ellen Fine Levine, VP/Director Risk Management and Surveillanc In the early part of the year, we completed the transition of 100 specialists and full service firms from the Midwest Clearing Corporation to NSCC. This effort followed the Chicago Stock Exchange's decision to exit the clearing business and supported the industry's Vision 2000 recommendation for consolidation and closer coordination of utility services.

Another initiative to promote coordination involved an agreement between NSCC and DTC for custody, clearance and settlement of securities not eligible for full book-entry services through the depository. NSCC's New York Window has been providing clearance and settlement services for these physical securities since 1993. The agreement follows DTC's effort to expand custody services to both eligible and noneligible securities. During 1996, the number of New York Window participants doubled to 26 firms, and transactions processed rose 10% to over 317,000 with a street value of \$582 billion. The Window also completed two agreements with The Chase Manhattan Bank and Bank of America to offer new wire transfer and bookentry clearance services. The Window continues to play a major role in reducing high fixed costs associated with the handling of physical securities, promoting book-entry movement and supporting depository eligibility.

Enhancements to our Reconfirmation and Repricing Service (RECAPS) this past year provide NSCC with the ability to now handle aged fails in corporate bonds and UITs along with fails in equities, municipal and zero coupon bonds which had been handled in RECAPS. We also launched a major rewrite of our Automated Customer Account Transfer Service (ACATS) in 1996. The change will expand the use of ACATS from its current broker-to-broker transfer capability to permit transfers between brokers, banks, mutual funds and other financial institutions, reflecting the industry's growing product diversification and NSCC's expanding participant base. Completing the revisions to ACATS is expected to take two years.



For over a decade, NSCC has supported growth in Mutual Fund activity by providing connectivity and processing efficiency between broker dealers, banks and fund families. Now, as the industry looks to expand the volume and variety of mutual funds available through 401(k) plans, once again NSCC is developing new services to spur growth.

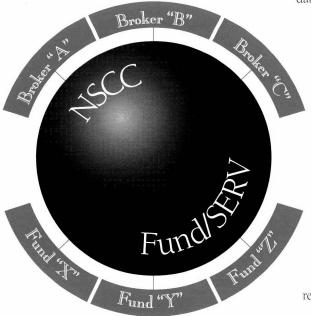
#### Mutual Funds

S ince its introduction in 1986, NSCC's Fund/SERV system has evolved to become the industry standard for processing mutual fund transactions between funds, broker dealers, banks and other financial intermediaries. In 1996, its tenth year of operation, Fund/SERV continued to set new records for volume and participants.

Last year, investment in U.S. mutual funds continued at an unparalleled pace, with over \$3.5 trillion dollars in assets held, up 25% compared with 1995. The Investment Company Institute (ICI) estimated at year-end that 59 million individuals in the U.S. owned mutual funds, or more than one in every five Americans.

More than 293 fund families were supported by Fund/SERV in 1996, as were 248 broker dealers and other firms. The average daily volume of Fund/SERV transactions rose 62% to almost 75,000 in 1996, from 46,000 in 1995. The gross daily value of these transactions climbed to \$820 million compared with \$518 million in the year prior. Fund families in Fund/SERV represent over 9,300 separate CUSIPS, an increase of 43% in the number of CUSIPS over the prior period. "NSCC's Fund/SERV system has evolved to become the industry standard for processing mutual fund transactions between funds, broker dealers, banks and other financial intermediaries."

> Mutual Fund Order Processing with Fund/SERV



Networking, a companion service to Fund/SERV that permits funds to share various customer account information directly with brokers or other financial firms who deal with the customer, also saw substantial growth. The number of subaccounts handled by the system grew to over 19 million in 1996, an increase of more than 37%. The number of firms participating in Networking grew 34% to 177 from 132, and the number of funds grew 17% to 267 from 228 in 1995.

Last year, NSCC introduced several new services to complement its core support of mutual fund processing. One of these services is a settlement date override feature on Fund/SERV, which permits brokers a limited ability to modify the date of settlement on a Fund/SERV order. NSCC also introduced phase one of its Mutual Fund Profile Service (MFPS), providing mutual fund daily prices and rates for securities from both funds and the NASD. Phase two of MFPS, which is under way with a 1997 introduction planned, will provide users with more detailed access to data on contacts, processing capabilities, minimum requirements of other users and detailed information on dividend and capital gains distributions. We expect MFPS to become

from left to right Tom J. Hamblin, Vice President American Funds Service Company John S.Vrettos, Managing Director Mutual Funds Product Developmen



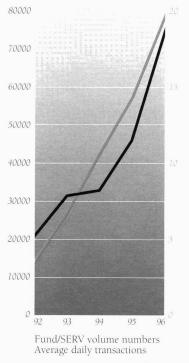
an increasingly important tool, as funds continue to grow and diversify.

The introduction of NSCC's Retirement Asset Transfer Service in 1996 was in response to urgent requests from mutual funds to find a cost-effective solution for IRA account transfers in this increasingly competitive business.

A strategy was developed by NSCC to initially provide for transfers of IRA assets from one mutual fund to another, through our Fund/SERV system. These fund-to-fund transfers account for 40% of IRA activity. By the end of 1996, a dozen funds were already testing the new service, and Putnam and Fidelity went live early in 1997.

> The second phase of this effort, to transfer IRA assets held by brokers, will be addressed later on as part of NSCC's planned revisions of the ACATS system. Following endorsement by the Investment Company Institute, the trade organization for the mutual fund community, NSCC has spent much of 1996 working closely with the industry on developing

### "FundSERV and Networking continue to set records for volume and participants."



Networking Number of subaccount: tin millions a system to support 401(k) processing. The new NSCC Defined Contribution Clearance and Settlement Service (DCC&S), scheduled for introduction in the second quarter of 1997, will automate and centralize the distribution of mutual fund daily Net Asset Values, as well as provide for the transmission, confirmation and settlement of mutual fund purchase and redemption orders. The system will also support the

reconciliation of account and position information among funds, Trustees and Third Party Administrators (TPAs).

In creating DCC&S, NSCC looked to reduce development time and costs by leveraging and modifying the existing processing capabilities of Fund/SERV and Networking and incorporating features of its new Mutual Fund Profile Service. DCC&S is well timed, as TPAs of 401(k) plans look to expand choices for plan participants across multiple fund complexes. At the same time, trust companies, which control the movement of such assets, must be able to monitor trading activity to complete multiple settlement obligations. In the same manner as it did nearly ten years ago, NSCC is committed to helping this industry segment achieve the processing efficiencies and flexibility required for continued growth.

> from left to right Ann E. Bergin, Managing Director Mutual Funds Account Management Randy W. Solomon, Director, Marketing David M. Warsoff, Senior Planning Project Manager

### Annuities

S ince late in 1995, NSCC has been working very closely with insurance carriers and broker dealers to develop a centralized and automated solution for processing annuities transactions.

The market for both fixed and variable annuities has already grown substantially since the beginning of the decade, reaching \$72 billion in 1996 from just \$12 billion in 1990. Some market analysts have predicted annuity sales could exceed \$165 billion by the year 2000.

While insurance companies in the past have sold both fixed and variable annuities directly, there's growing interest in using the distribution network of brokers, banks and other financial advisors. These networks now account for approximately 45% of variable annuities sales, and that percentage is expected to increase significantly in the future.

As NSCC has found in its long experience working in other market sectors, gaining greater processing efficiency and connectivity of market participants is essential to continued growth.

But providing services to a new market segment and a completely new set of participants can be quite challenging for any service organization. As NSCC met with industry representatives and regulators, we found that meeting the unique needs



from left to right Richard Cristiano, Director, Marketi Mark Reiser, Project Manager, Annuities Walter F. Siebecker, Managing Director Annuities

APS will provide a centralized communications link

Brokers Annuity Annuity Processing Stranger

of this financial sector would take time -

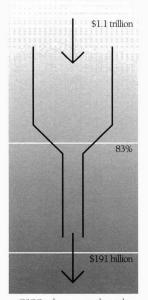
APS will provide a centralized communication link to connect insurance carriers with broker/dealer firms, banks and other financial advisory organizations. The system will eliminate current manual processing, reducing both time and cost associated with processing annuities.

Initially, APS will offer participants the ability to communicate on a daily basis information regarding annuity contract positions and valuations of the underlying assets, as well as settlement of commission monies. Later enhancements will expand APS to include the processing of annuity contract applications and settlement of premium payments. We expect APS to uphold NSCC's long-standing tradition of quality and reliability. And like our experience in mutual funds, over time, APS will expand and win industry confidence.

## GSCC

"GSCC has continually worked to broaden the range of its services and attract an ever expanding base of market participants."

#### GSCC Netting Factor for Peak Day, 1996



GSCC reduces or nets the total number of financial obligations requiring settlement. SCC affiliate Government

Securities Clearing Corporation (GSCC) had another very strong year in 1996. The dollar value of U.S. government securities transactions cleared by GSCC rose to \$108 trillion in 1996, from \$83 trillion in 1995.

Not dissimilar from the equity markets, the number of peak volume days for GSCC has also grown steadily. On a peak day, GSCC may process transactions worth in excess of \$1.1 trillion. Of these government securities transactions, GSCC nets down settlement obligations by as much as 83%, reducing risk and costs for the industry.

GSCC has continually worked to broaden the range of its services and attract an ever expanding base of market participants. This past year was no exception, as GSCC introduced a number of new solutions to support the huge and growing market for repurchase agreements (repos).

In 1995, the average weekly activity for repos was worth more than \$1.4 trillion, all handled manually or through proprietary networks. Working closely with its participants, GSCC developed and launched a system to automate the netting and settlement of overnight and term repos late in the year.

from left to right Marie A. Sullivan, Membership Coordinator, GSCC Eugene Ing, Statistical Analyst, GSCC Building on that effort, GSCC added comparison and netting services for blind-brokered repos in 1996 and extended netting eligibility for repos to a year from a previous time frame

of six months. It also rolled out a repo-tomaturity service and the first automated collateral substitution facility. In its first full year of processing repos, the average daily volume of transactions increased to 4,200 with an average daily value of \$138 billion.

GSCC recognizes that to remain the pre-eminent provider of trade comparison, clearance and settlement services, it must develop systems that will support a trading environment that is now operating around the clock and around the globe. To support such an environment, in 1996 GSCC completed initial steps toward launching a multi-year reengineering effort of its systems and platform to support real-time, on-line interactive processing. GSCC plans ultimately to position its services as close to the point of the trade as possible, allowing the industry to find greater efficiency and lower costs.

# MBSCC

MBS Clearing Corporation (MBSCC), an affiliate of NSCC, is the market's sole provider of trade comparison, confirmation, risk management and net settlement services for mortgage-backed securities (MBS).

The MBS market is unique. It includes long settlement periods of 45 to 90 days, and a trade typically has a high transaction value, averaging \$12 million or more in par value.

In 1996, the par values of transactions entered for comparison and settlement by MBSCC reached \$3.8 trillion compared to \$3 trillion in the prior year. Once again, a significant role played by the clearing corporation is the netting down or reducing of financial obligations requiring settlement. During a peak

from left to right Joseph Quagliariello, Operations Manager, MBSCC Carl A. Zarcone, Member Services Coordinator, MBSCC Daniel H. Diem, Member Services Coordinator, MBSCC



month, of the nearly \$281 billion in MBS transactions entered for netting, MBSCC reduced these dollar settlement obligations by 81 percent.

Significant among MBSCC initiatives last year was the expanded use of the Electronic Pool Notification (EPN) system. By year end, EPN had processed nearly 160,000 messages with a current face value of \$1.4 trillion.

In most mortgage-backed securities trades, a trade is made before the underlying securities are known. Just prior to the trade being settled, the delivering firm must provide the details of underlying securities to the receiving firm. In the past, this was accomplished by phone and fax, an error-prone and costly procedure. With the introduction of EPN in 1995, MBSCC offered the first electronic system for transmission of messages detailing the underlying securities on MBS trades.

The Public Securities Association (PSA) strongly endorsed the use of EPN, and effective November 1, changed its rules to stagger the cutoff times for notification of pool information, giving those firms using EPN increased reporting time flexibility. As a result of this endorsement by the PSA, by year-end the number of EPN users more than tripled.

MBSCC also looked to further expand its participant base last year, through the introduction of a new Comparison Only service. This service was designed for firms that do not require risk management or trade netting, but do want an automated method to compare and confirm To-Be-Announced and other non-standard mortgage-backed securities trades. MBSCC plans to expand comparison-only services for other types of trades in 1997.

Like its sister clearing organizations, MBSCC has a long tradition of service. Innovations in technology and telecommunications have increased the speed of information flow, heightened interest in new investment opportunities and expanded access to markets around the globe. NSCC has been creating services to support efficient cross-border activity, further global standards and foster the flow of capital between mature and emerging markets.