The image features two globes, one on the left and one on the right, representing the world. A network cable with an RJ45 connector is shown connecting the two globes, symbolizing global connectivity. The text is centered between the globes.

**...to a real-time  
world**

>> reaching interactive,  
real-time processing

>> going global

>> enhancing  
core competencies



**GSCC**  
 compared over  
**\$218** trillion in  
 total dollar volume, a  
 more than 2.4%  
 increase over 1998.

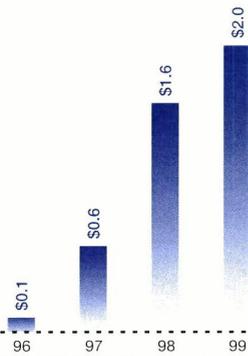
**GSCC netted,**  
 on average, over  
**\$855** billion daily  
 in buy/sell trades  
 and repurchase  
 agreements.

**GSCC**  
 eliminated more than  
**\$592** billion  
 daily through netting  
 and settlement  
 each day.

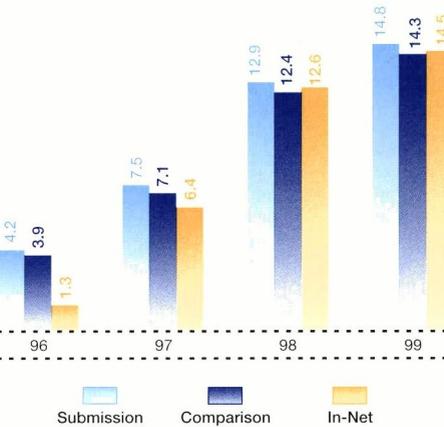
**1999**

# Highlights

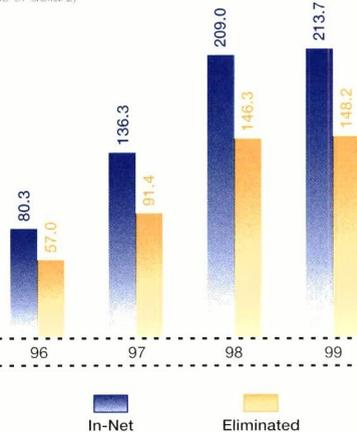
Average Daily  
 Dollar Value of  
 Term Repo Trades  
*(in trillions of dollars)*



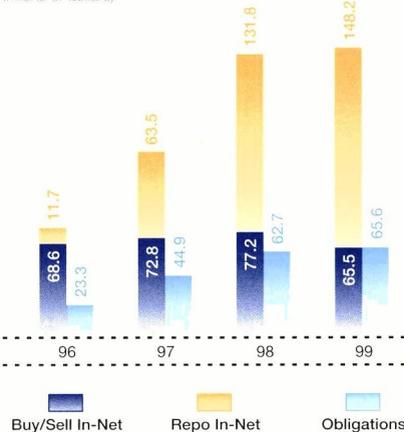
Average Daily  
 Number of Repo  
 Transactions  
*(in thousands)*



Total Dollar  
 Value of Trades  
 In-Net vs. Dollar  
 Value Eliminated  
*(in trillions of dollars)*



Total Dollar  
 Value of Trades  
 In-Net vs.  
 Obligations  
*(in trillions of dollars)*





Edward Almeida

Sal Ricca

## to our participants

***Our Mission: To bring order, stability and efficiency to post-trade processing in the U.S. Government securities and financing marketplaces—even in times of high volatility—and to enhance trading opportunities for our growing number of members.***

In carrying out this mission in 1999, GSCC pushed aggressively ahead with groundbreaking solutions and innovative technology to help participants begin moving from T+1 to a real-time world for post-trade processing, in what, from a dollars point-of-view, is the largest securities market in existence—U.S. Government securities.

Major forces, such as the rapid growth of the Internet and electronic trading networks, globalization, expanding trading hours, and the push for straight-through processing, are radically transforming the financial services industry, including the government securities marketplace. GSCC recognizes that “Job One” for us is to help participants successfully manage these challenges.

In order to do this, it became clear over the last few years that GSCC would need to lead the way in developing real-time, wholly interactive processing capabilities and move to standardized message formats, communications protocols, and

systems interfaces. These efforts, which are discussed in greater detail on page 4, will allow GSCC to support the industry initiative to achieve straight-through processing, and will enhance risk protection services by moving GSCC’s settlement guarantee closer to the time of trade execution.

We noted earlier that another significant trend affecting our participants is the increasingly global nature of finance. Just as we launched drives to reach straight-through processing and T+0, we also launched a major initiative in 1999 to help centralize netting and settlement services for the sovereign debt markets of Europe, a playing field where many of our participants have growing interests.

GSCC has established a partnership with the London Clearing House (LCH) and the Euroclear Operations Centre to oversee the adaptation of LCH’s existing netting mechanisms to encompass repurchase agreement (repo) and cash transactions in European Government debt securities. Each partner is lending its particular area of expertise to the project, which is being conducted under a newly formed joint entity called the European Securities Clearing Corporation (ESCC). ESCC’s ultimate goal is to create a centralized netting and settling system for cash and repo trades in the euro-denominated sovereign debt market. More information about our ESCC initiative begins on page 8.

While developing our real-time and global initiatives, GSCC paid equal attention to our platform and the core systems that support our traditional business objectives. GSCC’s primary mission in any year is to continue to efficiently process rising volumes on a daily basis, without service interruptions and at decreasing cost to our participants.

We had a solid year in 1999, comparing more than \$218 trillion in total dollar volume, up from \$213 trillion in 1998. GSCC netted, on average, more than \$855 billion daily in buy/sell trades and repos, and eliminated more than \$592 billion through netting and settlement each day—dramatically reducing the associated settlement risks for our members. These figures compare to \$835 billion in average daily transaction volume in 1998 and more than \$585 billion eliminated from settlement. Equally important, our systems and risk management policies protected our members as we recorded 23 peak dollar volume days of more than \$1 trillion and four days of more than \$2 trillion in 1999.

Just as it has for several years now, the repo market—the multi-layered system of collateralized securities lending between financial entities—accounted for the lion's share of growth in dollar volume of trades processed, as participants increasingly leveraged their capital efficiency in the marketplace. Repo volumes accounted for \$148 trillion or 68% of GSCC's total dollars compared in 1999, versus \$130 trillion or 61% in 1998. The repo term book also rose significantly, reaching \$2 trillion by year-end, up from \$1.6 trillion at year-end 1998.

GSCC's actual number of trades compared dipped by about 2% last year, to 10,964,669 in 1999 versus 11,220,610 in 1998. This drop in primary market volume reflects the fact that the federal budget surplus is allowing the U.S. Treasury to pay down a substantial amount of its long-term debt through both a reduction in the number of bond auctions and amounts being issued. GSCC will continue to monitor the impact of such trends on our participants, including the supply of the "long bond," or the 30-year Treasury bond, which is shrinking rapidly with the paydown of the national debt.

GSCC also continues to ratchet up the existing capabilities of our core businesses, as detailed beginning on page 11. Among our accomplishments in this area, GSCC received approval from the Securities and Exchange Commission to establish cross-margining arrangements with the New York Clearing Corporation (NYCC), and thereafter, with other futures clearing organizations. This is significant because it is the first cross-margining arrangement linking the cash and futures markets for U.S. Treasury securities. It will provide member firms with significant benefits, including greater liquidity, more efficient use of collateral and reduced operational costs. In another core accomplishment, we've implemented the second phase of the General Collateral Finance Repurchase (GCF Repo) service, which allows a participating dealer to trade with any other participating dealer across GSCC's two clearing banks.

Finally, another major accomplishment this year was our transition to Year 2000. I'm pleased to report that all of our 117 participant firms experienced no processing problems as our systems crossed over into the new millennium.

Since our beginning, GSCC has remained committed to continually exploring new ways to offer cost-effective and quality services to our membership base. GSCC's internal analysis estimates that our services provided \$423 million to the industry in opportunity benefits in 1999, including dollars and transactions eliminated, term repos carried, and repo balance sheet offset relief.

We have much to be proud of this past year. However, none of our aggressive processing and technology goals would be attainable without the dedication and expertise of our employees, backed by the vision, strong support and experience of our Board of Directors. We also want to acknowledge the role of the Securities Industry Automation Corporation (SIAC), our facilities manager, in supporting both our real-time preparations as well as the daily demands of our core businesses.

In addition, we'd like to extend a personal thank you to David M. Kelly, who retired in February 2000 as vice chairman and CEO of GSCC's Board, and from his posts as president and CEO of National Securities Clearing Corporation and vice chairman of The Depository Trust & Clearing Corporation. In his 12 years of Board service, Dave provided invaluable counsel and insight to help us keep pace with members' needs. All of us at GSCC wish him a happy and healthy retirement.

As we move into this new century, keeping pace with members' requirements continues to be our major objective. We know that we can provide members with the safe and sound settlement processing, risk management and capital efficiency that they need—and should expect—as they cope with the challenges of the changing financial services landscape. We stand ready to take our members to a real-time world where they can successfully harness these challenges, and transform them into profitable and long-lasting results.



**Edward Almeida**  
*Chairman of the Board*



**Sal Ricca**  
*President and Chief  
Operating Officer*

**S**traight-through processing, the rise of the Internet, burgeoning trading volumes, electronic trading systems, and extended hours are some of the major forces that are changing forever the way the financial services industry does business.

The post-trade processing of U.S. Government securities is no exception. In fact, this marketplace, with support from GSCC, is leading the march to straight-through processing (STP) and, ultimately, from our current T+1 to a real-time world of T+0.

GSCC's long-range goal is to open wide the post-trade processing door on a world in which we will be able to accurately capture, guarantee, reconcile and settle (when appropriate) as well as provide for the risk management of trades on the same day they are executed and submitted by our participants.

In 1999, GSCC marked the completion of a massive effort, begun in 1997, to totally reengineer and upgrade our systems, applications and network communication capabilities to provide straight-through processing and a point-of-trade guarantee to our participants, primarily through the implementation of real-time, interactive services.

Moving to T+0 is extremely significant because it will enhance risk protection for participants by bringing GSCC's settlement guarantee closer to the time of trade execution. It also will identify exposures more quickly, collect margin to cover exposures more frequently and offer netting benefits interactively.

As a first step, GSCC is establishing a real-time interactive messaging platform, probably the most critical step towards implementing straight-through processing. The platform, which includes communications links, messaging protocols and message formats, establishes the foundation for all GSCC's intended T+0 processing changes. With real-time messaging, participants will have the ability to submit trade data to GSCC, review output, and identify and correct any errors, all within minutes of execution.

In order to deliver these critical services to the marketplace as expeditiously as possible, GSCC is adopting a phased approach to implementing interactive messaging.

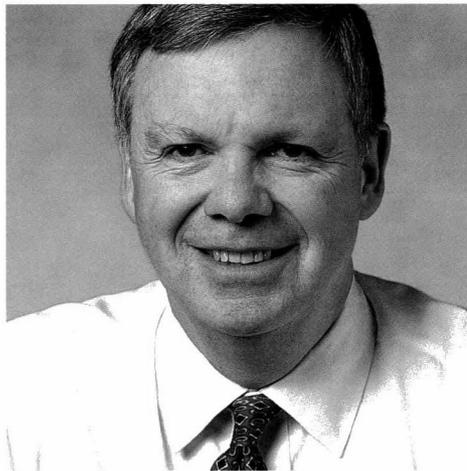
The first phase is interactive messaging to support real-time comparison, which GSCC plans to roll out early in the second quarter of 2000. Currently, members submit to GSCC a single "batch" of data at day's end for all their trades, the majority of which settle the

*(cont'd on page 7)*

Peter J. Murray  
Managing Director, Credit Suisse First Boston Corp.



Richard Beggs  
Executive Vice President/Chief Administrative Officer,  
Daiwa Securities America Inc.



"We anticipate that achieving real-time processing will eliminate risk from the settlement cycle, where the closer together you can bring trade execution to final settlement, the less risk you'll have." **By creating interactive messaging and real-time comparison for participants, GSCC is well on the way to achieving our long-term goal of developing real-time, interactive processing capabilities and switching over to standardized message formats, communications protocols, and systems interfaces.**

GSCC netted over

\$213,000,000,

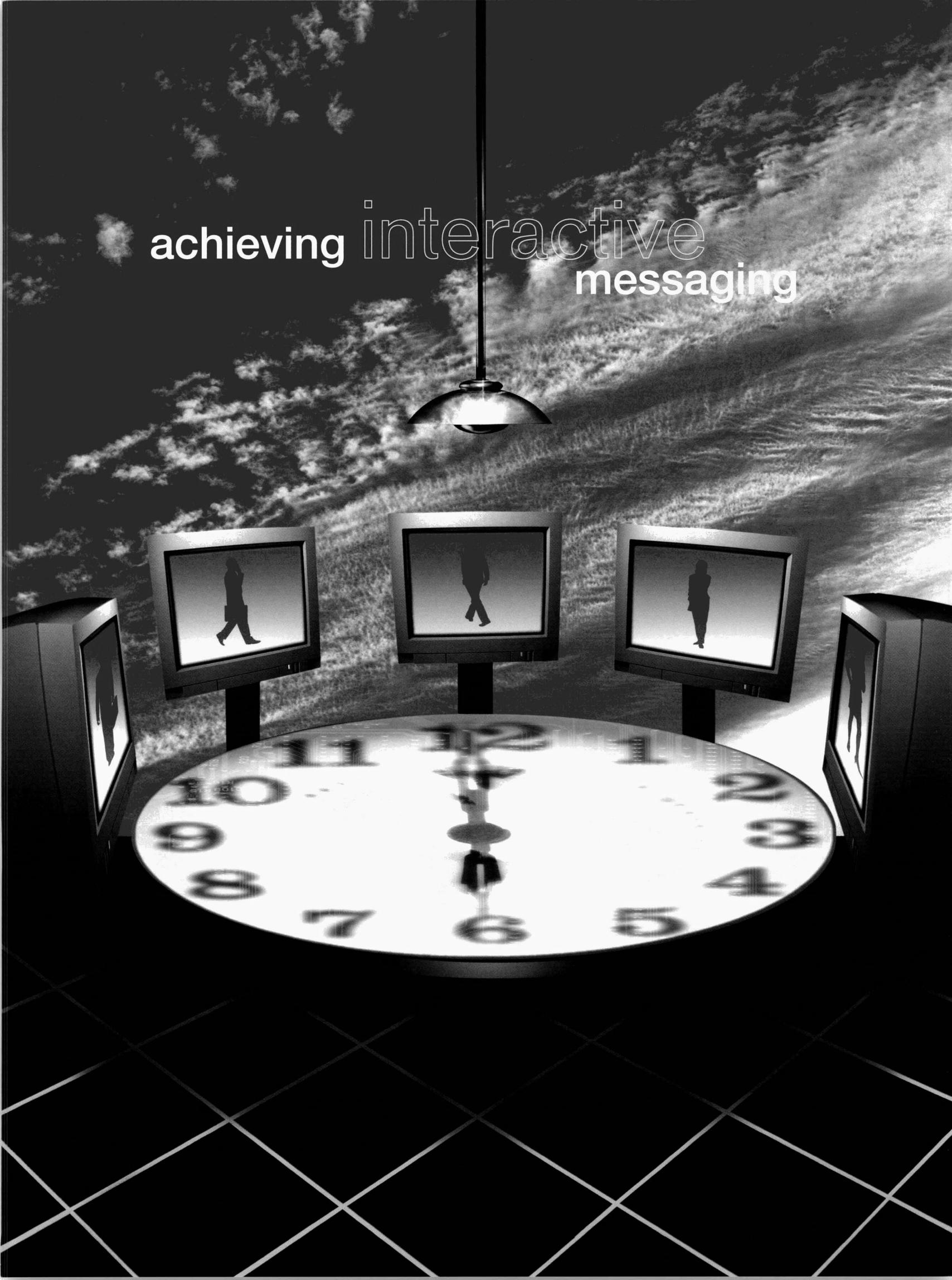
reaching T+0



000,000

in total dollar volume in 1999 and eliminated \$148 trillion of that amount through netting.

achieving interactive  
messaging





**Real-time, interactive processing means that the following steps could occur almost *simultaneously*:**

- > A participant sends trade data to GSCC;
  - > The trade is immediately acknowledged (or rejected);
- > The settlement positions of the receiving and delivering participants are adjusted;
  - > The new position is risk-assessed and appropriate margin is determined;
- > The trade is guaranteed by GSCC;
  - > All appropriate output is generated; and
- > The trades are settled where and when appropriate.

next business day. With real-time comparison services, members will be able to submit and receive trade information on an intra-day basis using a standardized message format (S.W.I.F.T. formats, an existing standard used internationally for interactive funds and securities transactions).

Incidentally, real-time intra-day data exchanges become particularly important as the Federal Reserve Banks and other depositories move towards a longer settlement day and the window for conducting batch activity shrinks.

After real-time comparison, the second phase of interactive messaging will support netting, followed by the third phase that will support same-day settlement of repo start legs.

Repo start leg transactions are same-day settling products that currently must settle outside of GSCC due to the constraints inherent in a batch-processing environment. In order to extend the full benefits of GSCC's netting, risk management, and clearance service to them, real-time processing becomes increasingly important.

In addition, as part of the rollout for real-time interactive messaging to support comparison, GSCC also will accept and process unilateral trade input from approved Electronic Trading Systems (ETS's) on a locked-in or pre-matched basis. This is being done to support the expanding use of electronic trading system

intermediaries in the Government securities marketplace. These systems are owned and operated by many different types of entities, including registered broker/dealers, exchanges and foreign companies.

Since its inception, GSCC has dealt with the traditional intermediaries in the Government securities marketplace—the inter-dealer brokers—by requiring them to be netting members and subjecting them to funds settlement obligations and limited margin and loss allocation requirements. After much consideration, GSCC's board and management believe that a different approach to the interaction with an ETS is appropriate.

This particular approach recognizes that ETS's are essentially "black boxes" that would execute and report to participants and GSCC the buy and sell sides of a trade on a simultaneous basis, eliminating the need for the contra-party to submit corresponding trade details to GSCC.

Although ETS's for Government securities transactions have not yet mushroomed at the rate experienced by the equities markets, GSCC does expect significant expansion of on-line bond trading and distribution in the next few years. GSCC will aggressively work with participants to keep pace with this "rewiring of the bond business," and to capitalize on the possibilities and reap the benefits of lowered costs and increased efficiencies that Internet technology can bring them.

**G**SCC continued moving ahead with our European initiative in 1999, recognizing the growing interest in the European government securities markets among our participants. In direct response to the demand for a centralized netting and settling system for cash and repo trades in the European sovereign debt markets, GSCC, the Euroclear Operations Centre and the London Clearing House (LCH) have banded together to bring these services to the marketplace in the most efficient and timely manner possible.

In November 1999, the three companies announced a partnership to provide a joint facility for the netting of European government debt repo and cash transactions. The three partners will own equal shares of the European Securities Clearing Corporation (ESCC), a new entity created specifically for the purpose of overseeing netting and settlement services for European Government debt transactions. ESCC's new joint netting facility is based on the LCH RepoClear service that commenced in 1999.

From GSCC's perspective, this partnership represents the culmination of our extensive effort to help ensure that global financial organizations receive the benefit in Europe of the same comprehensive set of trade confirmation, comparison, netting, risk management and settlements that they enjoy in the United States.

A major benefit that industry participants will derive is balance-sheet relief for their sovereign debt repo activity. Multilateral netting

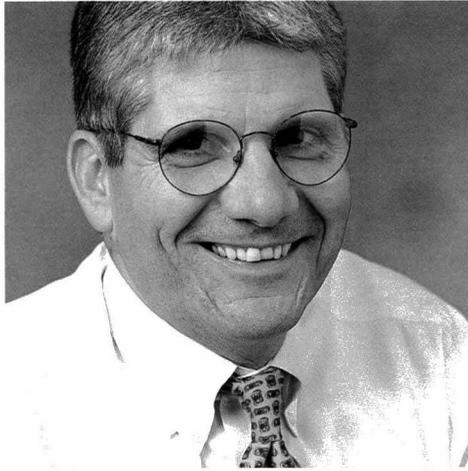
and novation would result in the establishment of a single, common counterparty for participants' netted positions, reducing the amount of repo transactions they are required to carry on their balance sheets. Other benefits will include: reduction of counterparty risk through guaranteed settlement; acceptance of trade data from electronic trading systems; and operational savings from netting and the subsequent reduction in securities and funds movements.

At the outset, one of GSCC's roles in ESCC will be to help ensure that the netting and risk management processes of the LCH RepoClear service will draw upon GSCC's experience and carry "United States system" features such as single-ticket trade entry, integrated cash and repo processing and settlement at current market value, and the facilitation of substitutions, all features that have proven very successful for the U.S. Government debt market.

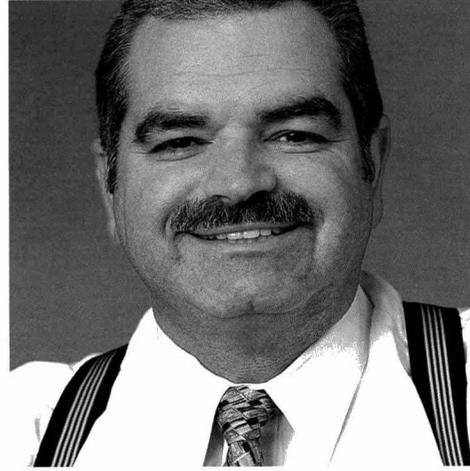
ESCC is an independent entity operating on a not-for-profit basis, wholly dedicated to serving the European market. A distinct, independent Board of Directors composed of industry representatives has been established to govern ESCC.

GSCC and its two partners bring unique knowledge and experience to this historic effort. By working together, we are confident that we will augment our operational and organizational strengths, and deliver a service that better meets the needs of the sovereign debt market—both today, and for the future.

Ralph Mastrangelo  
Executive Vice President, The Bank of New York



Ernest A. Pittarelli  
Managing Director, Warburg Dillon Read



"Duplicate infrastructures among clearance and settlement organizations in any given marketplace are inherently inefficient. We see ESCC as a direct response to growing industry demand for a centralized netting and settlement system for European government debt transactions." **Working together, GSCC and its two partners will be able to develop a truly pan-European solution to provide netting, risk management and settlement services for cash and repo transactions in European government debt securities.**

Repo volumes accounted for

\$148,000,000,

# going global



000,000

or 68% of GSCC's total dollars compared in 1999. The repo term book reached \$2 trillion by year-end, from \$1.6 trillion in 1998.



# enhancing core competencies

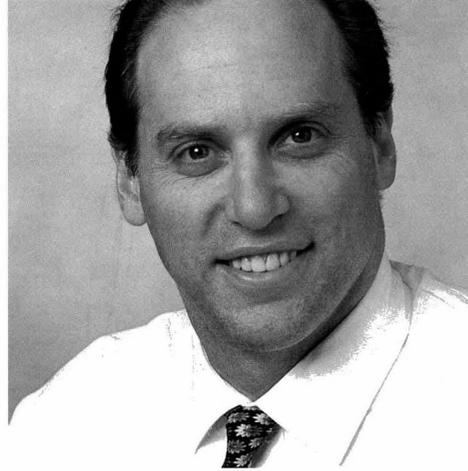
GSCC's risk management policies protected members  
as we netted 23 peak volume days of more than

\$1,000,000,000,000

Mary E. Richards  
Managing Director, Salomon Smith Barney



Douglas Gardner  
Executive Managing Director, Cantor Fitzgerald



“While new product development is vital in a dynamic marketplace, GSCC’s core services remain the keystone of the corporation. As members, we rely upon the continuous reassessment and evolution of these critical services to ensure processing that is simultaneously innovative and reliable.” **GSCC strives to improve upon our core services to meet members’ ever-evolving needs. In 1999 we improved communications through implementation of the Participant Access Network, expanded the GCF Repo service to include inter-bank activity and sought to reduce members’ margin requirements through establishing cross-margining arrangements with other clearing corporations.**

Fueled by the phenomenal growth of the repurchase agreement (repo) market, the value of transactions settled daily by GSCC often exceeds \$1 trillion, and nearly triples on peak days. But no matter what, GSCC’s core systems for comparison, netting, settlement and risk management bring post-trade processing that is orderly, efficient and risk-averse. In 1999, GSCC continued to strengthen our core capabilities with technological enhancements that respond to our members’ evolving needs.

For instance, GSCC has implemented the first cross-margining arrangement linking the cash and futures markets for U.S. Treasury securities through an agreement with the New York Clearing Corporation (NYCC), which clears for the Cantor Exchange. The new service allows for cross margining of cash and repo positions held at GSCC against futures positions held at NYCC for all common and/or affiliated members of the two clearing organizations. This could potentially result in a significant reduction in the amount of margin a common member or affiliate is required to post at either clearing organization.

Another major systems enhancement GSCC developed is the General Collateral Finance Repurchase (GCF Repo) service. Introduced in 1998, the service allows dealer members, using the same clearing bank, to freely and actively trade general collateral repos throughout the day without requiring intra-day, trade-for-trade

settlement on a delivery-versus-payment (DVP) basis. With the launch of the interbank phase of the service in early 1999, a participating dealer is able to trade with any other dealer across GSCC’s two clearing banks: The Bank of New York and The Chase Manhattan Bank. The inter-bank model provides even greater liquidity for participants and additional collateral sources.

GSCC’s Participant Access Network, introduced in early 1998, is another service that is increasingly valuable to participants. We are pleased to report that approximately 50% of GSCC members have implemented some form of connection to the network, which offers full access to the services of GSCC. In 1999, a key enhancement allows members to use their Web browser to access, view and print reports on-line as soon as they are generated by GSCC’s system, and view print image reports of their output from the last six years as well.

Throughout all the fast-moving changes in the U.S. Government securities marketplace, GSCC utilizes effective risk management to ensure market stability and member confidence. With such procedures, GSCC maintained our strong record of reliability and consistency in 1999, completing 11 years without a systems outage.

As GSCC moves forward in this new century, we will continue to work closely with our members to manage risk, provide a post-trade environment that is fail-safe and stable—and lead the way with innovative, cost-effective products and services.

and four days of over

\$2,000,000,000,000.