GETS CONFUSING FAST: A REVIEW OF THE "GCF REPO® SERVICE"

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The use of repurchase agreements ("repos") is a significant aspect of the overall U.S. Government securities marketplace.[1] Repos are unique financial instruments that are commonly used by a variety of financial entities to meet short-term financing needs.[2]

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[1] While any type of security can be used for repo transaction purposes, the most frequently used underlying securities are U.S. Treasury securities, Federal Agency securities, and securities issued by Federal Government Sponsored Enterprises such as Freddie Mac and Fannie Mae. This is because these securities are highly liquid and are generally regarded as carrying essentially no risk of default.

Based on financing activities of the primary dealers reporting to the Federal Reserve Bank of New York, the average volume of total outstanding repo and reverse repo contracts totaled $3.64 trillion for the first three quarters of 2002, an increase of 20.6 percent over the average volume of $3.02 trillion during the same period in 2001. The Bond Market Association Research Quarterly (November 2002).

[2] A repo involves two separate but related transactions; namely, an agreement of one party (the "seller") to transfer securities in exchange for cash to a second party (the "buyer"), and a simultaneous agreement of the seller to repurchase the same or equivalent securities from the buyer for a specified price at a specified later date or on demand. (The "start leg" of a repo refers to the transfer by the seller to the buyer of securities against cash to commence the repo. This typically is done on the same day as the repo transaction is executed, but the parties may choose to start the transaction on a later date. The "return leg" of a repo refers to the later transfer back of cash, plus interest, against securities to conclude the transaction.) Put another way, a repo may be said to be a contract for the sale of a security subject to a simultaneously created forward agreement for the repurchase of the same or a similar security at an agreed date or on demand.

Market participants discuss "repurchase agreements" using two references -- the "repo" and the "reverse repo". They are in essence the same transaction viewed from different perspectives. From the seller's viewpoint, the transaction is a repo. Thus, the repo party is the party effectively borrowing money, and "to repo securities" essentially means to use securities that one owns or controls as collateral to obtain cash temporarily. From the buyer's viewpoint, the transaction constitutes a reverse repo. Thus, the reverse party is the one effectively investing its money, and "to reverse in securities" essentially means to lend or invest money using securities as collateral. Every repo is also a reverse repo; that is, a reverse repo is simply a repo viewed from the perspective of the buyer.

The Guidance Notes for The Bond Market Association Master Repurchase Agreement (September 1996 version) ("TBMA Master Agreement"), which is the standard form of repo agreement used in the U.S. marketplace, confirms the parties' explicit characterization of repo transactions as purchases and sales, even though such transactions are recognized as having characteristics of financing transactions. Paragraph 6 of

Borrowing money by "repoing" out securities can be desirable for a number of reasons; for example, if repo money is cheaper than buying Fed funds[3], or if a long-term borrower believes that the cost of borrowing money will rise. The repo desk at a dealer firm typically uses repos as a means of financing the firm's inventory and long trading positions in Government securities, because repos are regarded as offering a high degree of safety[4], repo rates are relatively low (the overnight rate on Government securities collateral is normally below the overnight Fed funds rate), repo terms are flexible, and repos are administratively easy to process.

Conversely, repos also are used extensively for investment purposes. "Reversing in" securities offers institutions a means of investing variable amounts of money on a day-to-day or flexible term basis at favorable rates. The adjustability of the term of a repo makes it a useful financial management tool for institutions investing temporary cash balances.[5]

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the TBMA Master Agreement, for example, states that although the parties intend that all transactions under the agreement be sales and purchases and not loans, in the event any such transactions are deemed to be loans, the seller shall be deemed to have granted to the buyer a security interest in all of the purchased securities and income thereon and other proceeds thereof. To simplify the discussion, this article refers to certain terms of a repo transaction as if it were a secured loan, even though it is understood, as in the TBMA Master Agreement, that the parties may intend that the transaction should be characterized as a purchase and sale. For example, this article occasionally describes the repo transaction as "borrowing money" rather than selling securities, refers to the underlying securities of a repo transaction as "collateral" rather than as purchased securities, and utilizes the term "interest" rather than pricing rate.

[3] "Fed funds" are immediately available funds at a Federal Reserve Bank. The Fed funds market is a source of liquidity (typically overnight) for banks.

[4] The safety of a repo is a function of the confidence of the parties to the transaction that in the event of counterparty failure, the underlying collateral can be liquidated by the buyer, or the cash used by the seller to buy in equivalent securities, in a manner that makes the party economically whole, without significant risk of legal challenge and overturn.

[5] Moreover, reverse repos serve as a low-cost and flexible means of borrowing specific securities on a temporary basis. This typically occurs when a dealer needs to cover a short position. In effect, the availability of repos makes short selling more viable. The major suppliers of specific securities to dealers are banks (especially via their trust or custody departments).

Many large dealers engage in "matched book" trading in repos, simultaneously entering into repo and reverse repo positions as a form of arbitrage on rates. The dealer attempts to borrow funds at one rate and re-lend them at a higher rate to earn a spread.[6] Others use repos in arbitrage strategies as well.

A large portion of U.S. repo activity is cleared, netted, risk managed, and settled by the Government Securities Division of the Fixed Income Clearing Corporation ("FICC").[7] FICC compares, nets, guarantees and facilitates settlement of, and manages the risk arising from, all of the eligible transactions submitted to it by its members.[8] The clearance and settlement process provided by FICC is integral to the functioning of the U.S. Government securities marketplace.[9]

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[6] If a dealer repos out securities for the same maturity period that it reverses them in, it is running a "true" matched book. This is a relatively riskless form of matched book trading, with no interest rate risk. The dealer is profiting simply through the spread in interest rates between the two contracts. Dealers also mismatch asset and liability maturities in their books, as a play on the direction of interest rates.

[7] FICC, a securities clearing agency registered with and regulated by the SEC, is the central clearing organization for the U.S. Government securities and financing marketplaces. Its mission, broadly stated, is to bring operational, financial and risk management benefits to the clearance and settlement of Government securities and financing products, and to ensure orderly settlement, through the provision of automated trade comparison, netting, guaranteed settlement and risk management services. Virtually all of the major "street-side" U.S. Government market participants, mostly broker-dealers and banks, are members of FICC. FICC also processes the activity of more than 470 non-member "executing firms", which clear through its members.

FICC is a subsidiary of DTCC, which also owns The Depository Trust Company, the Emerging Markets Clearing Corporation, and the National Securities Clearing Corporation. The persons elected by the shareholders of DTCC to be directors of DTCC also are the directors of FICC.

In December 2002, the MBS Clearing Corporation was merged into the Government Securities Clearing Corporation ("GSCC"), with GSCC being renamed the Fixed Income Clearing Corporation. FICC has two divisions -- the Government Securities Division and the Mortgage-Backed Securities Division -- each with its own separate set of rules and procedures. In this article, "FICC" refers only to the Government Securities Division of FICC.

[8] On average each business day during 2002, FICC processed $1.7 trillion in Government securities activity, of which approximately $608 billion was buy-sell activity, $896 billion was non-GCF (or "delivery versus payment") repo activity, and $184 billion was GCF Repo activity.

[9] "Clearance and settlement of trades -- the process by which the ownership of securities is transferred finally and irrevocably from one investor to another, typically in exchange for a corresponding transfer of

In November 1995, FICC (then known as the "Government Securities Clearing Corporation") began providing netting and settlement services for repos.[10] Soon thereafter, Paul Scheufele, the Managing Director and head of U.S. Repo at Credit Suisse First Boston Corporation, approached Thomas Costa, then a Managing Director and now President and Chief Operating Officer of FICC, with the idea of applying FICC's netting and settlement processes to make the trading of general collateral repos, particularly matched-book trading, more liquid and efficient. In response, Mr. Costa began working with David Buckmaster, who had newly joined FICC after many years at Marine Midland Bank and HSBC Securities, and Mr. Scheufele[11] on the design of a new type of repo product that would eliminate the need for dealers to devote collateral notification and allocation resources to each general collateral repo that they entered into.[12]

In November 1998, after much assistance by FICC's settlement banks -- The Bank of New York ("BNY") and JP Morgan Chase Bank ("Chase") -- as well as TBMA and

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funds -- is central to all securities market activity and is thus a linchpin of any financial system." Group of 30, Global Clearing and Settlement: A Plan of Action (2002) ("G-30 Report").

[10] When FICC nets repo transactions, as it does for cash transactions, it interposes itself between the two submitting participants for transaction settlement purposes. For example, in the case of a repo return leg, FICC interposes itself between the participant that submitted the repo (the long participant for the return leg) and the participant that submitted the corresponding reverse (the short participant for the return leg). In doing so, FICC assumes contra party responsibility and guarantees settlement of all repos that enter its netting system. FICC's guarantee of settlement for netted repos includes: (a) return of repo collateral to the repo participant; (b) return of principal (repo start amount) to the reverse participant; and (c) payment of repo interest to the full term of the repo to the reverse participant.

[11] In 1998, Mr. Scheufele became Vice Chair of the Funding Division of The Bond Market Association ("TBMA") and helped make the implementation of the GCF Repo service a TBMA priority.

[12] Running a matched book for general collateral repos can be operationally cumbersome, because of the need to work with operations staff to identify and allocate collateral to be used for each transaction entered into. "'If you didn't have the collateral at your fingertips, it disincentivized you to do the trade,' says a senior trader involved in developing the new [GCF Repo] structure." Asset International On-Line, Forefront 5, (Spring 1998).

the dealer community generally, and approval by the SEC[13], FICC revolutionized the financing marketplace by introducing a new trading product known as “General Collateral Financing Repo”, or “GCF Repo”, for Treasury securities collateral.[14] After a slow start during its first two years, the GCF Repo service has grown significantly in volume. This dramatic increase began in 2000, when Agencies and certain mortgage-backed securities ("MBS") were made eligible products. On average each day during 2002, FICC compared 415 GCF Repo transactions, worth $184 billion,[15] and it had on its book a total of GCF term trades equal to $589 billion. The GCF Repo service is now “a runaway success” and “an integral securities financing alternative for Wall Street dealers”.[16] It has promoted the expansion of the general collateral repo market, has

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[13] See Self-Regulatory Organization; Government Securities Clearing Corporation, Securities Exchange Act Release Nos. 40057 (June 2, 1998 - notice of filing) and 40623 (Oct. 30, 1998 - approval order). In its approval order, the SEC stated its belief that “the use of the GCF Repo service should reduce exposure to counterparty default, increase payment netting, and apply advanced clearing and risk management practices to the market in general collateral repos”.

[14] FICC accepts trade data on GCF Repos that are designed to start either on the day of execution or on a date in the future; the latter type of repo is known as a “forward-starting” repo. After FICC filed in 1998 for approval to commence the GCF Repo service, the Chicago Board of Trade submitted a comment letter to the SEC stating that the GCF Repo service might be subject to the exclusive jurisdiction of the Commodity Futures Trading Commission ("CFTC") and that if any of the repos that would be cleared through the GCF Repo service are futures, then the CFTC has exclusive jurisdiction over the service even if the repos also are securities. The Chicago Mercantile Exchange submitted a similar comment letter, arguing that forward-starting GCF Repos are futures subject to the CFTC’s jurisdiction, and urged the Commission to defer action on the filing until the CFTC had an opportunity to address this issue. FICC and TBMA responded to those letters, arguing that forward-starting repos are not futures but, rather, are the same as standard repos except that the obligations created by a forward-start repo begin on a day after the day that the transaction is executed. In addition, they stated that the forward starting repos are covered by the exemption from the Commodity Exchange Act known as the “Treasury Amendment”. Moreover, they argued that the facilities of interdealer brokers should not be considered boards of trade because they are not formally organized exchanges. The CFTC initially stated to the SEC that it was analyzing the GCF Repo service and requested that the Commission defer final action on the proposed rule change until it had time to complete its review. Subsequently, after a meeting with FICC management, the CFTC’s Division of Trading & Markets advised the Commission that it had completed its review of the GCF Repo service and had determined that it had no further comment on the service or GCF Repo transactions.

[15] Of that amount, $3.9 billion was in the "Treasuries under 10 Years" CUSIP, $57.5 billion was in the "All Treasuries" CUSIP, $46.7 was in the "All Agencies" CUSIP, and $75.5 billion was in the "All MBS" CUSIP.

[16] “More Money, More Woes for GCF Repos” Security Industry News (December 9, 2002).

become a valuable alternative to the tri-party repo market,[17] and represents an important new vehicle for dealers to buy or sell collateral and finance positions.

Overview

The GCF Repo service enables FICC's non-inter-dealer-broker netting members ("dealers") to trade general collateral repos[18], based on rate, term, and underlying product, throughout the day without requiring intraday, trade-for-trade settlement on a delivery versus payment ("DVP") basis. Dealers execute GCF Repos with FICC inter-dealer broker netting members ("brokers") on an anonymous, or "blind", basis.[19] The brokers are required to submit data on GCF Repos to FICC shortly after trade execution.[20] Brokers may submit GCF Repo transactions in amounts of up to $2 billion,

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[17] Repo securities may be delivered to the buyer ("deliver-out repos") or to a third-party custodian ("tri-party repos"), or held by the seller for the benefit of the buyer ("hold-in-custody" or "HIC" repos"). A significant and growing segment of the repo marketplace is the tri-party repo market. In a tri-party repo, a third-party custodian, typically a bank, acts on behalf of the buyer and the seller and exercises independent control over the exchange of securities and funds between the two parties. After the repo is entered into, the custodian takes possession of the seller's collateral, and transfers cash to the seller. Similarly, it takes in the buyer's cash and confirms to it the receipt of the seller's collateral. The custodian performs these functions in reverse at the end of the transaction. Tri-party repos reduce administrative and operational costs, including the costs of delivering and returning collateral that are incurred in a deliver-out repo.

[18] The securities provided for a repo entered into to borrow money to finance a long position usually will be non-specific, general collateral, meaning that identification of collateral is at the option of seller. This is because the securities involved in the repo transaction are transferred to the buyer primarily to provide assurance that the seller will perform its obligation to pay the repurchase price on the settlement date. This is known as a "general collateral" repo, as opposed to a "special collateral" repo.

[19] Repos may be entered into directly between dealer parties; however, a large number of repo transactions entered into by dealers are arranged through repo brokers, in order to preserve counterparty anonymity. Until 1996, brokered repo transactions were entered into solely on a "giveup" basis, meaning that, after the broker matched the two dealers, it gave up their identities to each other and stepped out of the transaction, never becoming involved in the settlement of the transaction. In 1996, FICC made brokered repos eligible for its netting process. As a consequence, given the settlement guarantee and counterparty credit protections provided by FICC's netting process, this allowed for repos to be brokered on an anonymous or "blind" basis. Dealer members are required to designate to FICC, in writing, those brokers that are authorized to submit GCF Repo transactions on their behalf. See FICC Rule 6C (Locked-In Comparisons).

[20] FICC accepts, and reports as a compared trade, data on GCF Repo transactions on a pre-matched, or "locked-in", basis, relying solely on data received from authorized brokers. See FICC Rule 6C (Locked-In Comparisons). This means that both the repo and reverse sides of a GCF Repo transaction are processed based upon broker input, without requiring the submission and matching of corresponding trade details

compared to the current maximum of $50 million for each non-GCF, or DVP, repo trade (although there is no limit on the number of trades that may be submitted). In addition, brokers have the ability to submit data for both the repo and the reverse sides of the trade using a single screen.

Standardized, generic CUSIP numbers established exclusively by FICC for GCF processing are used to specify the acceptable type of underlying eligible collateral.[21] Thus, the parties to a GCF Repo transaction need to agree on a "collateral basket", even though any securities that fit within that basket are then acceptable.

FICC provides a real-time, on-line information system for GCF Repos that is capable of displaying up-to-the-minute trade information and netting results throughout the day. Trades are submitted electronically through the FICC Shared Data Center Access Network, which allows members to upload output files, as well as view reports and access FICC application screens using a Web browser.[22] Upon receipt of data from brokers, FICC immediately reports transaction details to dealers. Dealer positions are automatically updated, and may be viewed on-line via GCF's dynamic display screens. The most recent trades and position information are displayed simultaneously. Position

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from the dealer counterparties (although dealers do have a "DK" ability). By using input from a single, approved submission source (i.e., the brokers) to process GCF Repos, the intrinsic limitations and processing delays associated with two-sided comparison are avoided. This is especially important in order to effectively net each dealer's GCF Repo activity on a real-time basis, as opposed to the overnight process that is currently performed by FICC for buy/sell and non-GCF Repo activity.

[21] Initially, GCF Repo service participants were limited to trading in a single generic CUSIP, encompassing only Treasuries with ten years and under in remaining maturity. In September 1999, FICC added a second generic CUSIP, for all Treasuries. In the first quarter of 2000, FICC made non-mortgage-backed Agency securities (January 24), and Freddie Mac and Fannie Mae fixed rate MBS (March 20), eligible for processing within the GCF Repo service by adding a generic CUSIP for each.

[22] The Access Network was developed by FICC and NSCC to provide their respective members with a single point of access to all services. This facility allows many alternative connection methods, and provides "TCP/IP" connectivity between a member and a clearing corporation service.

information is available at both the individual generic CUSIP level and the cumulative, overall level.

Soon after a pre-determined trading cutoff, FICC conducts an afternoon net exclusively for GCF Repo activity, combining each dealer's carry over (including previous term and previously submitted forward-starting activity) and new GCF activity to establish a single net receive or deliver position in each generic CUSIP. For each such CUSIP, a dealer member is either a net securities borrower (i.e., money lender), a net securities lender (i.e., money borrower), or nets flat. BNY and Chase provide the mechanism for allowing a chain of simultaneous collateral and cash movements to occur between FICC and its dealer members, and also allow those securities to be available for various purposes, including tri-party processing and bank loans.[23] All positions are reversed on the morning of the next business day prior to the opening of the securities Fedwire. Term repos thus are collateralized by cash intraday.

FICC becomes a counterparty for settlement purposes to each dealer party to a GCF Repo transaction[24], and guarantees settlement of GCF Repos upon receipt of trade data.[25] In order to do so in a prudent manner, FICC uses the same risk management protections for the GCF Repo service that it has in place for its non-GCF activity,

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[23] When the GCF Repo service was introduced in 1998, participants were limited to intra-bank trading; in other words, dealers could engage in GCF repo trading only with other dealers that used the same clearing bank. This allowed each bank to transfer collateral without the need to involve the other bank or use the Fedwire. In June 1999, FICC broadened the service to allow for the trading of GCF Repos on an inter-bank basis, meaning that a participating dealer could engage in GCF Repo trading with any other participating dealer, even if it used a different clearing bank. See Self Regulatory Organizations; Government Securities Clearing Corporation, Securities Exchange Act Release Nos. 41002 (Feb. 5, 1999 - notice of filing) and 41303 (April 16, 1999 - approval order).

[24] FICC is a "central counterparty" (or "CCP"), which may be defined as, "an entity that is the buyer to every seller and seller to every buyer of a specified set of contracts...CCPs legally interpose themselves as principal to each side of the transaction…" G-30 Report.

[25] See FICC Rule 20 (Special Provisions for GCF Repo Transactions), Section 5 (Novation).

including the collection of margin[26] and the receipt and pass-through of mark-to-market amounts.[27] In addition, the GCF Repo processing system facilitates intraday, real-time position monitoring by both FICC and the clearing banks. This means that FICC staff have the ability to monitor a dealer's GCF activity throughout the day, identify any unusual trends, and keep a close watch over large dealer positions. If a dealer takes on a position that is deemed too large given its financial status, historical processing volumes and/or its current Clearing Fund margin deposit, FICC could call for additional margin from the dealer.

Benefits

The GCF Repo service provides important benefits to participants in the U.S. Government securities market,[28] including the following:

- Additional Borrowing Resource: Dealers now have an additional borrowing source to the current options, which include bank loans and DVP repos. This has brought greater depth to the general collateral marketplace.[29]

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[26] FICC collects Clearing Fund margin to guard against potential market exposure that could occur between the current date and the liquidation date of an insolvent participant's obligations. This is accomplished by calculating the impact of: 1) estimated daily changes in the value of the securities underlying each participant's transactions; 2) estimated daily fluctuations in repo rates for the participant's term repo activity; and 3) the participant's estimated funds settlement exposure. FICC's current margining process for each generic CUSIP assumes that it has received the least liquid security in the basket and thus requires each dealer to post the most conservative margin factor.

[27] FICC performs a daily interest rate mark-to-market for all term GCF Repo activity to bring transactions to their current replacement value. (Because GCF Repos are done using generic CUSIPs, the underlying collateral is not marked by FICC; however, clearing banks are responsible for ensuring that allocated collateral conforms to the terms of the contract, and that the collateral value is equal to at least 100% of the principal value of the repo.) The mark results in the daily collection and pass-through of accrued repo interest to date, plus or minus the repo rate differential. The rate differential equals the difference between the contractual repo rate for the remaining term and the FICC replacement cost repo rate.

[28] See e.g., Statement of Treasury Assistant Secretary for Financial Markets Brian C. Roseboro at The Bond Market Association's Repo and Securities Lending Conference New York City, "The Resilience of the U.S. Financial Markets, and Keeping It That Way" (December 12, 2002).

- Increased Liquidity: The GCF Repo service has removed the trading constraints arising from the individual collateral arrangements of borrowing and lending dealers. Dealers also have a longer time period during the day to trade general collateral repos.[30] Moreover, the GCF Repo service, particularly with regard to MBS, has significantly increased the amount of tradable inventory.[31]

- Increased Efficiency/Lower Costs: Collateral allocation is more cost-efficient, because participants don't have to assign collateral for each specific trade. Further, the elimination of trade-by-trade DVP delivery requirements have lessened participants' operational costs. One additional significant advantage is that there is no need for substitutions on term trades, as GCF Repos are "re-collateralized" each new business day.[32] Moreover, because of the daily reversal, or "unwind" of collateral allocations and funds movements, there is no risk of fails.[33]

- Safety: As discussed above, FICC's settlement guarantee and risk management protections provide maximum safety for the general collateral repo marketplace.

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[29] "GCF trading has emerged as the fundamental way dealers with excess tri-party liquidity invest in the repo markets…GCF has also become a vital component of firm funding activities." Presentation by Jeffrey A. Bockian on General Collateral Financing at The Bond Market Association Fixed Income Securities Operations Conference (November 8, 2002) ("Bockian Presentation").

[30] Id.

[31] Id.

[32] Collateral substitution rights arise because the seller may wish to be able to take back certain securities previously provided as collateral and substitute others. It may need securities back for various reasons, such as because it has sold them to another party. The buyer may grant the seller this right of substitution, perhaps for a slightly higher repo rate.

[33] For a discussion of the significance of settlement fails in the U.S. Government securities marketplace, see Michael Fleming and Kenneth Garbade, When the Back Office Moved to the Front Burner: Settlement Fails in the Treasury Market After 9/11 (FRBNY Economic Policy Review, November 2002) ("Fleming/Garbade article").

GCF Repos, like DVP-settled repos, are guaranteed when compared, which should happen within minutes of the trade, thus eliminating intraday counterparty credit risk.

- Open Access: FICC's risk management protections and its settlement guarantee for the GCF Repo service, in conjunction with blind brokering, allow for expanded access to the general collateral market to encompass a wider range of financial entities. In other words, FICC's participation in this marketplace has the beneficial effect of "leveling the playing field."
- Balance Sheet Relief: FICC's netting and settlement procedures for repos facilitate the ability of members to maximize the availability, per the requirements set forth in FASB Interpretation No. 41 ("FIN 41"), of "balance sheet netting". The key factor in this regard is that FICC, through netting by novation, becomes the common counterparty for a member's repo transactions done with any other netting member.[34]

Daily Timeframes

To best understand the GCF Repo process, it is useful to review the actions taken during a typical business day.[35] GCF Repo trading begins around 7:00 a.m. (all times are in New York time), when FICC opens its system. Before 7:30 a.m., FICC begins to

[34] See FICC Rule 20 (Special Provisions for GCF Repo Transactions), Section 5 (Novation). FICC has received an opinion from PricewaterhouseCoopers LLP ("PwC") stating that participants in GCF Repo transactions that have the same explicit settlement date qualify for netting under FIN 41, because FICC is considered the common counterparty, the FICC rules comprise a master netting agreement, the securities underlying the transactions exist in book-entry form, the transactions are settled on a net basis only, and the same clearing bank is being used by the participant for these transactions. Letter of June 17, 1999 from PwC to the Government Securities Clearing Corporation.

[35] The timeframes discussed in this section are reflected in FICC's Schedule of GCF Timeframes, which is a part of the FICC Rules.

accept from brokers data on GCF Repo transactions. Brokers are required to submit the trade details on a GCF Repo transaction that they are a party to within five minutes of execution of such transaction, via terminal.[36] As noted above, upon receipt of trade data from the brokers, FICC immediately provides dealers with GCF Repo transaction details via a real-time, on-line display. The most recent trades are displayed in a window at the bottom of the screen, while up-to-the-minute position information is displayed at the top of the screen.

Dealers have an obligation throughout the day to promptly review GCF Repo trade data and either affirm or disaffirm each trade.[37] At 10:00 a.m., dealers must begin affirming or disaffirming GCF Repo transactions within one half hour of receipt of data on such transactions from FICC. (Thus, 10:30 a.m. is the deadline for dealer affirmation or disaffirmation of all GCF Repo transactions that they are a party to that are executed prior to 10 a.m.) For GCF Repo transactions executed after 1:00 p.m., dealers must affirm or disaffirm GCF Repo transactions within ten minutes of their receipt of data on such transactions from FICC.

Affirming a transaction indicates that the dealer recognizes the trade and agrees to its terms. If a dealer disaffirms a trade, its GCF Repo net position is automatically adjusted, and a notification will be sent to the broker for prompt resolution. Any trade which has not been affirmed or disaffirmed by the close of business automatically is deemed affirmed by the system.[38]

[36] FICC Schedule of GCF Timeframes.

[37] FICC Rule 6C (Locked-In Comparison), Section 13 (Affirmation, Cancellation, and Modification Requirements for Data on GCF Repo Transactions).

[38] Id.

The trade data submission cutoff is 3:35 p.m., which is after the close of the securities Fedwire. Dealers have until 3:45 p.m. to act to affirm or disaffirm trade data submitted against them by a broker; as noted above, if they have not acted, the trades automatically are deemed to be affirmed. At 3:45 p.m., FICC conducts its net of GCF Repo activity to establish a single net receive or deliver position in each generic CUSIP in which a member has activity, and begins to notify the banks and dealers of final positions, and collateral allocations begin. Dealer allocations of collateral to satisfy obligations are to be made by 4:30 p.m., with 7:00 p.m. being the final cutoff for this.[39]

At 7:30 a.m. on the following business day, the previous day's collateral allocations and funds movement are reversed.

"Tri-Party-Like" Settlement Mechanism

Because the net GCF Repo settlement obligations are established after the close of the securities Fedwire, FICC, together with BNY and Chase, have established a unique "tri-party-like" settlement mechanism to permit an after-Fedwire-hours "movement" of cash and securities between the two banks.

At the end of each business day, one of the two banks will, in the aggregate, represent members that are in a money borrowing or collateral allocating position (the "collateral allocating bank"), and the other bank will, in the aggregate, represent members that are in a money lending or collateral receiving position (the "collateral receiving bank"). The essence of the settlement arrangement is that the two banks agree to allow securities to be held under a sub-custodial relationship (with the sub-custodian

[39] FICC Rule 20 (Special Provisions for GCF Repo Transactions), Section 3 (Collateral Allocation) provides that, if a netting member does not satisfy a collateral allocation obligation by the final cutoff, it is deemed to have failed on such position, the consequence of which is that the member is not entitled to receive the funds borrowed, but still owes interest on such funds amount.

being FICC) in lieu of directly receiving the securities by Fedwire transfer. The operation of this mechanism is briefly described below:

(1) A single funds borrower or lender requirement is established for each dealer in each generic CUSIP. Corresponding receive and deliver obligations are generated for the associated collateral movements.

(2) Funds borrowers allocate acceptable collateral, in satisfaction of their GCF Repo obligations, and deliver those securities versus payment to a FICC account within their clearing bank.[40]

(3) FICC informs the collateral allocating bank to move the collateral by book-entry into a special FICC account. FICC marks its own books and records to indicate that it holds the securities for the other clearing bank.

(4) The collateral allocating bank identifies the securities (including the generic CUSIP involved, the dollar amount, the CUSIPs, par value, market price, and market value) in a file and transmits that file to the collateral receiving bank.

(5) The collateral receiving bank verifies the pricing of the collateral, makes a funds transfer to the other bank via the cash Fedwire, and transfers the collateral to appropriate participants.

(6) The following morning, prior to the opening of the securities wire, all securities and funds movements related to GCF Repo transactions are reversed. The collateral allocating bank is required to return the funds it received from the other bank,

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[40]A netting member that has, on a particular business day, a collateral allocation obligation, may satisfy such obligation by posting with FICC: (i) comparable securities, (ii) U.S. Treasury bills, notes, or bonds, and/or (iii) cash. Id. "Comparable securities" means any other securities that are represented by the same generic CUSIP. FICC Rule 1 (Definitions).

at which time it returns the collateral to the participants that originally transferred the securities.[41]

From a legal perspective, in order to accomplish the collateral movements described above, BNY and Chase each has established a special securities clearance account on its books and records for the benefit of FICC, to facilitate all interbank collateral allocations. In addition, both banks have established sub-accounts for collateral destined for the other bank.

In turn, FICC has established on its own books and records a securities clearance account[42] for the benefit of each of BNY and Chase.[43] BNY and Chase are "entitlement holders" having "securities entitlements"[44] against FICC in its capacity as a "securities intermediary"[45] (as each of those terms is defined in the NYUCC) with respect to the

[41] If a netting member is not able, due to reasons beyond its control and despite exercising best efforts, to return the securities it received on the previous day, it may return: (i) comparable securities, (ii) U.S. Treasury bills, notes, or bonds, and/or (iii) cash. FICC will charge such member for any actual damages directly suffered by the other member as a result of not receiving back the same securities, and will remit any amounts so received to the other member. FICC Rule 20, Section 3.

[42] Each of the four accounts mentioned in the previous two sentences is a "securities account", which is defined in Section 8-501(a) of the New York Uniform Commercial Code (the "NYUCC") as "an account to which a financial asset is or may be created in accordance with an agreement under which the person maintaining the account undertakes to treat the person for whom the account is maintained as entitled to exercise the rights that comprise the financial asset".

[43] The securities account FICC has established in the name of Chase is comprised of the securities in FICC's special clearance account maintained by BNY, and the securities account it has established in the name of BNY is comprised of the securities in FICC's special clearance account maintained by Chase. FICC has appointed Chase as its agent to maintain FICC's books and records with respect to the BNY securities account, and FICC has appointed BNY as its agent to maintain FICC's books and records with respect to the Chase securities account.

[44] A "securities entitlement" is not a claim to a specific identifiable thing; rather, it is a package of rights and interests that a person has against its securities intermediary and the property held by the intermediary. Official Comment 2 to NYUCC Section 8-503.

[45] FICC is registered with the SEC as a clearing agency under the Section 17A of the Securities Exchange Act of 1934. As such, it is a "clearing corporation" under Section 8-102(a)(5)(i) of the NYUCC and a "securities intermediary" under Section 8-102(a)(14)(i) of the NYUCC. A "securities intermediary" is "the term used for those who hold securities for others in the indirect holding system". Sandra Rocks & Penelope Christophorou, Memorandum Regarding the 1994 Uniform Version of Article 8 of the Uniform

securities that are credited by FICC to the FICC account for BNY and for Chase, respectively.[46] (Similarly, FICC is an entitlement holder having securities entitlements against BNY and Chase in each of their capacities as securities intermediary with respect to the securities that are credited by BNY to the BNY account for FICC and the Chase account for FICC, respectively.) Each bank thus has the comfort of relying on FICC as its securities intermediary.[47]

The establishment of these securities accounts by FICC in the name of the clearing banks enables the bank that is in the net long securities position to "receive" securities after the close of the securities Fedwire. Once it has "received" the securities, it credits them by book-entry to a FICC account and then to the dealers that clear at that bank that are net long securities in connection with GCF repo trades. From an operational and legal standpoint, the use of these accounts is transparent to participating members. Members' rights to collateral associated with GCF Repo activity remains the same regardless of where the securities are housed.

Commercial Code and the Federal Book-Entry Regulations, (The American Law Institute). As a securities intermediary, FICC may create a "security entitlement" (NYUCC Section 8-102(a)(17)) for the benefit of each bank by creating a "securities account" (NYUCC Section 8-501(a)) for each. (BNY and Chase, themselves securities intermediaries, are permitted by the UCC to hold through other securities intermediaries.)

[46] FICC has obtained a "no-action" letter from the SEC stating that, in a situation where a registered investment company subject to the Investment Company Act of 1940 enters into a GCF Repo transaction, FICC may be deemed to act as a "securities depository", as defined in SEC Rule 17f-4 under the Act, with respect to the underlying collateral. See Response of the Office of Chief Counsel of the Division of Investment Management (Ref. No. 0000095, Government Securities Clearing Corporation, File No. 132-3, October 19, 2001).

[47] FICC, as a securities intermediary, has a duty to maintain securities for the benefit of its entitlement holders, which are BNY and Chase, including maintaining sufficient financial assets to cover all entitlements created. See NYUCC Section 8-504(a). NYUCC Section 8-505 charges the securities intermediary with the duty of passing through to the entitlement holders the economic benefits of ownership of the financial asset. NYUCC Section 8-503 provides that financial assets held by the intermediary for the entitlement holders are not the property of the securities intermediary and are not subject to claims of the intermediary's general creditors.

As an example of how this tri-party-like settlement mechanism works, assume that, at the end of a particular business day, when FICC has established the net GCF Repo settlement position and collateral allocation obligation or entitlement for each participating dealer with respect to each generic CUSIP number, the clearance customers of Chase are in an aggregate net funds "borrower" position (or aggregate net short securities position -- meaning that they owe securities) and the customers of BNY are in an aggregate net funds "lender" position (or aggregate net long securities position -- meaning that they are owed securities). FICC will instruct Chase to allocate to the special FICC clearance account at Chase securities with a value equal to the net short securities position. Chase will transmit to BNY a description of the securities in the BNY securities account. Based on this transmission, BNY will transfer funds via the cash Fedwire equal to the aggregate net funds borrowed position to a demand deposit account in the name of FICC that is maintained by Chase. Upon receipt of the funds by Chase, Chase will release any liens it may have on the special FICC clearance account, and FICC will release any liens it may have on the BNY securities account (both these accounts being comprised of the same securities). BNY will credit the securities in the BNY securities account to FICC's regular GCF Repo clearance account at BNY, and BNY will further credit these securities to dealers participating in the GCF Repo service that clear at BNY and that are in a net long securities position. Thus, FICC, Chase and BNY will have accomplished an after-hours movement of securities between clearing banks and will enable dealers that clear at both banks to trade GCF Repos with each other.

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In sum, the introduction of the GCF Repo service has brought significant trading and operational efficiencies and enhanced liquidity to the U.S. Government securities marketplace, and holds the promise for even more benefit in the future. Expansion of the service to encompass more products currently is on hold, pending the resolution of certain issues related to the settlement mechanism for the service, discussion of which is beyond the scope of this article. Assuming resolution of these issues, use of the GCF Repo service, which represents a unique combination of modern netting and settlement techniques, real-time trade input, and operational and legal innovation, undoubtedly will continue to grow.

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