DTCC

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The Depository Trust & Clearing Corporation ("DTCC") welcomes the opportunity to submit this statement to the House Financial Services Committee in connection with its May 6, 2021 hearing entitled "Game Stopped? Who Wins and Loses When Short Sellers, Social Media, and Retail Investors Collide."

Background

DTCC is a holding company that owns and operates three clearing agencies that are registered with the U.S. Securities and Exchange Commission ("SEC") under the Securities Exchange Act of 1934 (the "Exchange Act"): National Securities Clearing Corporation ("NSCC"), Fixed Income Clearing Corporation ("FICC") and The Depository Trust Company ("DTC"). The events under discussion in this hearing relate to securities transactions cleared by NSCC.

NSCC is the central counterparty or CCP that clears cash transactions in the U.S. equities markets, netting securities deliveries and payments among NSCC's clearing members and guaranteeing completion of trades even if one party defaults. On a normal day, NSCC processes about 200 million transaction sides, covering an underlying value of securities of nearly $2 trillion. Netting reduces these obligations to around 1 million securities movements and $35 billion in cash movement, creating tremendous efficiency for the markets. For example, on March 3, 2020, during the pandemic-related volatility of last spring, the value of shares moving through NSCC exceeded $3.5 trillion, but the actual dollar value requiring final money settlement for those transactions was reduced by over 98%, to just $80.3 billion.

The U.S. markets are multi-layered, and customers generally execute trades through one or more brokers or broker-dealers. NSCC's direct clearing members are responsible for completing their customers' trades at NSCC. NSCC's rules outline clear financial and operational risk management obligations that apply to direct clearing members.[1] NSCC does not know the identity of the customers who executed or directed the trades, nor does NSCC know the customers' reasons for trading or what other positions customers may hold.

Securities trades submitted to NSCC settle at the end of the second business day after submission, in what is known as T+2 settlement. Between trade submission

[1] NSCC currently has 155 full-service members, the category of clearing member to which NSCC refers in this statement.

and settlement, NSCC guarantees all cleared trades among its members. If a clearing member defaults on its settlement obligations, NSCC guarantees the delivery of cash and securities to its non-defaulting members. That is what clearing is, and it is essential to facilitate the high-volume trading that makes today's U.S. equities markets the deepest, most liquid and efficient securities markets in the world. Because of clearing, investors can focus on obtaining the best price and do not need to concern themselves with the creditworthiness of the buyers and sellers on the other side of their transactions.

Active financial risk management is the foundation of this system. Margin protects NSCC and all market participants against clearing member defaults, and margin requirements must be met by clearing members on a timely basis. NSCC's margin requirements are rules-based and subject to regulatory review and approval. NSCC is obligated under the Exchange Act to fully cover its credit exposures to each clearing member with a high degree of confidence, and it is tested against this requirement daily. Meeting this high standard without imposing overly burdensome upfront collateral demands means that margin calls must always be satisfied within hours according to strict timelines. This is the core of the system, and it is the principal obligation of each clearing member. If a clearing member fails to satisfy a margin call, NSCC will use the margin previously posted to complete the defaulting clearing member's trades, no matter how much the value of the underlying securities has changed. If a clearing member fails to meet its margin requirements, it exposes other clearing members to risk and can put NSCC out of compliance with SEC rules. In a case of non-payment, NSCC may cease-to-act for the clearing member and liquidate its unsettled clearing portfolio. This is a drastic step. It can disrupt markets and impact end investors. This is, however, the appropriate outcome if a clearing member is unable to satisfy its margin requirements and allowing it to continue would increase the risk of needing to liquidate the portfolio later at even greater loss. In an extreme case, losses could even be allocated to non-defaulting clearing members. Correctly managing this balance is NSCC's most essential function.

NSCC collects clearing fund, or margin, at the start of each day and intraday in volatile markets. The calculation of clearing fund component charges and the timing of collection are set forth in NSCC's rules, which are known to every member and changes to which must be filed for public review and comment and approval by the SEC. Most of these charges – generally referred to as core clearing fund components – directly address the estimated risk of the clearing member's unsettled portfolio. The largest component is the value-at-risk or "VaR" charge. Core clearing fund components are calculated identically for each clearing member based on its portfolio and historical activity. Clearing fund component charges are calculated using statistical models and mathematical formulas set forth in NSCC's rules, which must be approved by the SEC. NSCC also provides reporting tools, calculators and documentation that allow clearing members to monitor their risk in near real-time and estimate potential clearing fund requirements for actual or hypothetical portfolios. Many clearing members have employed this information to build their own internal calculators and monitoring tools to aid them in risk management.

NSCC's rules-based clearing fund requirements also include certain "non-core" charges that address specific issues. These are also set forth in NSCC's rules. For example, if a clearing member's portfolio is highly variable from day to day, core charges may not adequately capture the risk. If so, the clearing member could be subject to a backtesting charge that addresses this gap. Other charges are intended to encourage operational resiliency and reduce settlement risk. One example is the fails charge that applies when a clearing member fails to deliver securities for settlement.

One such non-core charge that became important during the week of January 25 is the capital premium charge. This charge was adopted in 2006, following market disruptions caused by the failure of a clearing member of NSCC and other clearinghouses. The capital premium charge is intended to discourage clearing members from taking on more risk in their portfolios at NSCC than their capital levels can reasonably support. Because a clearing member may be obligated to quickly provide funds to NSCC and other clearinghouses, a clearing member that is over-leveraged presents a heightened risk of default. NSCC looks to a clearing member's excess net capital (a measure of generally available capital for broker-dealers) as an important cushion against such risks. The capital premium charge applies if a specified portion of a member's core requirement (including the predominant VaR charge)[2] is greater than its excess net capital. The charge is calculated using a simple formula in NSCC's rules that scales upward based on the degree of leverage. A clearing member with a core requirement that barely exceeds its capital cushion will have a small charge. A clearing member with a core requirement that greatly exceeds its capital cushion will have a much larger charge. NSCC provides a warning to clearing members in their daily clearing fund statements on any day that their core requirement exceeds 50% of their capital cushion, to remind them that this charge will be applied if their core requirement grows to exceed their capital cushion.

The capital premium charge is collected not as revenue to NSCC but as part of the clearing fund requirement. It is released to the clearing member when portfolio risk comes down or the clearing member secures additional capital. Collecting this charge both protects NSCC against immediate default risk and operates as a disincentive to risky activity because of the higher margin costs to the clearing member or the need to raise additional capital on a short-term basis. The existence of the charge encourages clearing members to proactively manage the risk they are presenting to NSCC and to have plans to raise liquidity or capital if they take on increased risk. While this charge is important to encourage clearing members to proactively monitor their portfolio risk, liquidity resources and capital, the rule specifically permits NSCC to reduce or eliminate the charge if NSCC believes that imposing the charge in a specific situation is not necessary or appropriate. The rule describes several circumstances in which the charge could be caused by factors not genuinely reflective of a clearing member's risk profile, such that applying the charge would not be appropriate.

[2] That portion of the core clearing fund requirement that is assessed for purposes of the capital premium charge is described hereafter as the core requirement for simplicity, although it is a specific aggregation of some but not all core component charges, as set forth in NSCC's rules.

A clearing member can avoid a capital premium charge by either raising its capital level or reducing the risk in its portfolio. A clearing member that is monitoring market conditions and risk levels in its portfolio may take a variety of steps to reduce risk, including routing executed trades to other NSCC clearing members, limiting submissions from other broker-dealers that clear through it, or imposing other trading restrictions on its clients. Reducing risk in an unsettled portfolio will typically result in reduced core clearing fund charges, which in turn reduces the likelihood that a clearing member will become subject to the capital premium charge. NSCC does not direct its members whether or how to take such steps, but it does expect members to be able to meet their margin requirements for clearing activity, including the capital premium charge if they incur it.

January Market Volatility Events

During the week of January 25, 2021, the market saw unusually high volumes and price volatility in certain securities that had been popularized on internet message boards, including GameStop. NSCC actively monitored market developments as volumes and prices rose in these “meme” securities at the beginning of the week. NSCC experienced the two highest transaction volume days in its history on Wednesday, January 27 and Thursday, January 28. On Wednesday, NSCC processed approximately 474 million transaction sides, exceeding the March 2020 volume record by more than 100 million. Risk at NSCC, as measured by NSCC’s aggregate clearing fund requirement, also increased substantially on January 28, to $33.5 billion, slightly higher than the peak that occurred in March 2020 and just under NSCC’s historical maximum.[3]

Extreme market volatility and even “short squeeze” events are not new phenomena. What was unusual was that activity in the volatile meme securities was also more concentrated in the portfolios of firms that primarily support individual investors. The concentrated retail interest in purchasing meme securities and the related spike in the prices of those securities was a substantial factor in generating the near-peak aggregate clearing fund requirements at NSCC on January 28. The impact of that increase was more concentrated in the clearing members whose clients drove that activity. The impact of the March 2020 market volatility and the related increase in NSCC clearing fund requirements, by contrast, was more evenly distributed across clearing members.

As volumes and volatility in the meme securities spiked on Wednesday, January 27, NSCC calculated and imposed a special charge under its rules that essentially accelerated collection of a portion of the following morning’s VaR charge for many clearing members with exposure to these securities. The imposition of the special charge, in addition to NSCC’s collection of intraday mark-to-market charges, reflected significant growth in risk in many clearing members’ unsettled portfolios. Final VaR charge estimates were updated at the end of day in the NSCC risk portal to reflect changes in each clearing member’s portfolio through the end of the trading

[3] A peak of $36.4 billion was reached in December 2020 when Tesla was added to the S&P 500 Index.

day, and then updated overnight to reflect the impact of security price changes using Wednesday's closing prices. Clearing members would have observed these updates in the NSCC risk portal.

Shortly after 5 a.m. Eastern Time on Thursday, January 28, NSCC's daily margin statements were released to clearing members in NSCC's risk portal and excess/deficiency notices were emailed according to NSCC's standard operational timeline. Many clearing members whose unsettled portfolios were exposed to volatile meme stocks saw significant increases in the VaR charges that derived from the risk posed by increased volume and price volatility in these securities. Substantial VaR charge increases also generated capital premium charges for clearing members whose core requirements exceeded their capital cushions. Several clearing members were subject to capital premium charges, which were automatically generated by NSCC's systems based on the formula in NSCC's rules.

NSCC examined the market activity and clearing member margin requirements to consider whether it would be appropriate to adjust or waive the capital premium charge, as permitted under the applicable rule. NSCC determined that the spike in market volatility, particularly in the so-called meme stocks, was a material contributor to elevated VaR charges for several clearing members, including most of those subject to capital premium charges. NSCC determined that it would be appropriate to waive the capital premium charge for all clearing members, using the discretion provided in the rule to reduce or waive this charge.[4] Just after 9 a.m., prior to the market opening at 9:30 a.m., updated daily margin statements reflecting the waiver were released in NSCC's portal and revised excess/deficiency notices were emailed to clearing members. All clearing members timely satisfied their clearing fund requirements.

NSCC's clearing fund charges are rules-driven and based on formulas that are published to clearing members, which must be applied to each clearing member's portfolio of unsettled trades as it changes. A dramatic increase in a clearing member's VaR charges over a short period results directly from a correspondingly large increase in the risk presented to NSCC by the clearing member's portfolio, due to increases in transaction volume, volatility and concentration of the unsettled transactions in the clearing member's portfolio, and not from any discretionary action taken by NSCC.

NSCC's role in the market is a neutral one. It does not impose trading restrictions upon its clearing members or their customers, and it did not instruct any clearing member to impose restrictions during the market volatility events of late January. NSCC expects all clearing members to employ effective tools to monitor and manage their risk, and to maintain an appropriate level of capital to support any expansion of or change in their business activities. Clearing fund requirements are rules-based and subject to limited discretion. NSCC exercises this discretion

[4] Consistent with this conclusion, NSCC also decided to waive the capital premium charge for all clearing members through Monday, February 1, by when the unusual market activity from Wednesday and Thursday would have settled.

carefully, often in unique circumstances. In such cases, NSCC's sole objective is to balance the need to protect the system from a potential clearing member default against the damage and other risks that could result if NSCC were to cease-to-act and liquidate a clearing member's portfolio.

Accelerated Securities Settlement

DTCC has long worked with the industry to identify ways to enhance efficiency and reduce costs in post-trade processing. Following a multi-year, industry-wide effort, securities settlement was shortened in 2017 from T+3 to T+2, achieving margin savings estimated at 25%. Shortening the settlement cycle beyond T+2 would reduce the risks that drive margin requirements and further reduce costs to clearing members.

Over the past year, DTCC has worked with a cross-section of clients and stakeholders to explore the benefits of moving to T+1 or T+0. DTCC has conducted pilot projects exploring new technologies that could be employed in accelerated settlement or even real-time gross settlement ("RTGS").[5] Additionally, DTCC is exploring an integrated settlement model with clearing members that could introduce more settlement efficiencies between NSCC and DTC, which is the central securities depository for the U.S. market, to reduce margin demands at NSCC. DTCC published a white paper in February 2021 outlining several steps that DTCC was exploring with the industry to accelerated settlement for equities, which recommended that the industry cooperate to achieve T+1 settlement within three years.[6] DTCC is working with the Securities Industry and Financial Markets Association and the Investment Company Institute to advance this important effort.

Engagement with the industry and DTCC's own assessment indicates that the industry is increasingly prepared to move to T+1. DTCC's analysis suggests that T+1 settlement could reduce NSCC VaR charges by as much as 40%, which could save clearing members upwards of $6 billion per day in margin requirements during periods of extreme volatility.[7]

Substantial procedural hurdles remain for a move to T+0. Beyond T+0, a move to RTGS would eliminate the substantial efficiencies of netting, which currently compresses the amount of cash required to fund daily transactions at NSCC by over 98%. RTGS could require that transactions be funded on a trade-by-trade basis. While this could eliminate most margin component charges for clearing members if customers fully prefunded all trading activity, that prefunding would be difficult to forecast as settlement obligations change in real-time. The heightened costs of the substantial liquidity buffers required to support this approach could erode market

[5] T+0 settlement, in which trades are netted and settled at the end of the same trading day, should not be confused with real-time gross settlement, in which trades are settled instantly.
[6] Available at https://www.dtcc.com/forms/advancing-together-leading-the-industry-to-accelerated-settlement-perspectives.
[7] These figures are based on sample portfolios of NSCC members. Potential margin reduction will vary based on portfolio characteristics.

liquidity. Additionally, the real-time reconciliation and real-time stock records required for either T+0 or RTGS would be difficult for the industry to implement. There would be negative impacts to processing for short sales, the use of securities lending as a financing tool, and institutional trade processing operations. For these reasons, while NSCC is fully supportive of a shorter settlement cycle, NSCC does not believe the industry is ready to support shortening the settlement cycle beyond T+1 at this time.

Conclusion

As an SEC-registered clearing agency, NSCC is charged under the Exchange Act with facilitating the prompt and accurate clearance and settlement of securities transactions and safeguarding the securities and funds in its custody and control. It is subject to stringent SEC requirements regarding the management of financial risk, including the daily collection of margin requirements. The obligations that NSCC's rules-based requirements impose on clearing members protect not only NSCC and its other clearing members, but all securities investors. The regulatory framework established by the SEC and the stringent financial and operational risk management requirements at NSCC are the foundation of this system. Without clearing, investors could not trade in the accessible, transparent and highly efficient securities markets that they do today. DTCC continues to promote further improvements and efficiencies, such as acceleration of the current T+2 settlement cycle, that will ultimately benefit clearing members and securities investors alike. We look forward to engaging with our clearing members and the broader industry on this important initiative.