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June 23, 2015

Mr. Brent J. Fields  
Secretary  
U.S. Securities and Exchange Commission  
100 F Street, NE  
Washington, DC 20549-1090

Re: Bloomberg STP LLC; Notice of Filing of Application for Exemption  
from Registration as a Clearing Agency (File Number 600-33)

Dear Mr. Fields:

The Depository Trust & Clearing Corporation (“DTCC”) appreciates the opportunity to provide comments to the Securities and Exchange Commission (“Commission” or “SEC”) in response to comments by Bloomberg STP LLC (“BSTP”)<sup>1</sup> on DTCC’s prior comment letter on BSTP’s application for an exemption from registration as a clearing agency,<sup>2</sup> pursuant to Section 17A of the Securities Exchange Act of 1934 (“Exchange Act”) and Rule 17Ab2-1 thereunder.<sup>3</sup>

DTCC has retained Cornerstone Research (“Cornerstone”) to examine the economic implications of BSTP’s potential entry into the national clearance and settlement system as an exempt clearing agency to provide central matching and electronic trade confirmation services. A copy of Cornerstone’s report on their findings (“Cornerstone Report”) is attached as Exhibit 1 hereto.<sup>4</sup>

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<sup>1</sup> See letter from Ben Macdonald, President, Bloomberg STP LLC, to Brent J. Fields, Secretary, Commission (May 21, 2015) (“Bloomberg Response Letter”), available at: <http://www.sec.gov/comments/600-33/60033-26.pdf>.

<sup>2</sup> See letter from Larry E. Thompson, Vice-Chairman and General Counsel, DTCC, to Brent J. Fields, Secretary, Commission (April 6, 2015) (“Prior Comment Letter”), available at: <http://www.sec.gov/comments/600-33/60033-20.pdf>.

<sup>3</sup> Securities Exchange Act Release No. 74394 (February 27, 2015), 80 FR 12048 (March 5, 2015) (“Notice”). Publicly available sections for BSTP’s Form CA-1 were also published on the SEC’s website at: <http://www.sec.gov/rules/other/2015/34-74394-form-ca-1.pdf> (“Form CA-1”).

<sup>4</sup> Cornerstone is an economic and financial consulting firm and has provided economic and financial analysis in regulatory proceedings. Additionally, Cornerstone has been retained on various occasions by the SEC and the Financial Industry Regulatory Authority to provide independent research and analysis in connection with rulemaking and enforcement projects.

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## I. Summary

DTCC is the nation's industry-owned utility for the centralized clearance and settlement of securities transactions. Our focus, first and foremost, is on the safety and soundness of the national clearance and settlement system. For over forty years we have led the way toward reducing risk and improving efficiencies in clearance and settlement as trading volumes have grown. We look forward to working with other providers of central matching, consistent with our mandate to promote both efficiencies and risk reduction in clearance and settlement. In this regard, DTCC maintains the statements made in our Prior Comment Letter. In this letter, we respond specifically to a subset of points made by BSTP in the Bloomberg Response Letter that DTCC believes impact our concerns about the safety and soundness of the national clearance and settlement system.

## II. DTCC Supports Competition and Interoperability in Central Matching

DTCC supports fair competition, and therefore interoperability between and among central matching services, but solely with respect to the central matching function. Other core settlement functions, such as the provision of settlement instructions, the facilities used to convey settlement information, and the consistent controls and standards by which such information is provided, should be under industry control. DTCC, which has provided such standards and controls since the advent of central matching, should continue to perform this utility function.

The Bloomberg Response Letter asserts that mandating use of the combined systems of The Depository Trust Company ("DTC")/National Securities Clearing Corporation ("NSCC")/TradeSuite ID<sup>5</sup> (the "Existing Infrastructure") would harm the U.S. markets and frustrate the goals of Section 17A of the Exchange Act. BSTP's primary argument for this assertion appears to be that by leaving the industry with a single point of failure, DTCC's single access model would impose more risk on the national clearance and settlement system than the multiple access model that BSTP has proposed.

As explained more fully in the attached Cornerstone Report,<sup>6</sup> however, a financial system relying on a well operated single point of failure with a robust business continuity program and multiple layers of redundancy would impose less of a risk to the national clearance and settlement system than a financial system relying on multiple points of access. This is particularly true where any one of multiple points of access within the financial system could impose significant harm to the financial system and its participants or even crash the financial system. BSTP's multiple access model would therefore impose additional risks on the national clearance and settlement system than would DTCC's proposed single access model. In fact, as explained in our Prior Comment

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<sup>5</sup> TradeSuite ID is a service of Omgeo LLC, a wholly-owned subsidiary of the DTCC.

<sup>6</sup> See Cornerstone Report at pp. 23-25.

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Letter, BSTP's proposed multiple access model would require redundant capabilities among central matching services and settlement agents, resulting in greater complexity with respect to order and trade processing, reconciliation and incident reconstruction. This could lead to increased systemic risk in the national clearance and settlement system and is significantly less efficient than DTCC's single access model.

The Bloomberg Response Letter also asserts that DTCC is attempting to impose significant barriers to entry by advocating for single access to the national clearance and settlement system. Leveraging the Existing Infrastructure that is already integrated with DTC, would, by contrast, provide for a faster time to market for new central matching service entrants, through the elimination of significant effort to re-build and re-test additional platforms and systems that perform the functions as components of the Existing Infrastructure. DTCC welcomes competition in central matching, drawing a distinction at the core settlement functions that are more safely provided by a single, industry-owned utility, through a robust and redundant infrastructure that has proven resilient over time.

### III. Reliance on DTCC-Issued Control Numbers

The Bloomberg Response Letter suggests that there should be multiple issuers of Control Numbers for centrally matched and electronically confirmed trades, possibly issued by each central matching service granted an exemption by the Commission. DTCC continues to believe strongly that it is essential for purposes of both risk reduction and regulatory auditing that the industries rely on only one issuer of Control Numbers. BSTP's proposal to have two (or more) issuers of control numbers injects complexity into this process and could lead to increased trade failures and potential confusion.

Because Control Number issuance is an intrinsic part of the TradeSuite ID processing system, DTCC cannot simply extricate this function from TradeSuite ID and move it to another part of DTCC or sell it to a third party. Moreover, the back office systems of banks and broker-dealers are already coded to receive TradeSuite ID Control Numbers from Omgeo. Introducing a new source of such Control Numbers would therefore introduce unnecessary complexity and risk to the national clearance and settlement system.

### IV. Reliance on the Existing Infrastructure for Core Settlement Messaging

DTCC continues to believe that DTCC's single access model, which relies on Omgeo as the single point of access to DTC for settlement instructions would provide the safest, most efficient and quickest approach to fostering competition in central matching. That is because DTCC can more effectively control and manage risks to the national clearance and settlement system by controlling access to DTC, NSCC and custodians/settlement agents through Omgeo, than if there were multiple points of access to DTC, NSCC and the custodians/settlement agents. By limiting

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access to a single channel, DTC would be better able to standardize the messaging protocols through which information flowed to DTC, NSCC and the custodians/settlement agents.<sup>7</sup>

BSTP's proposed reliance on multiple points of access to DTC, NSCC and the custodians/settlement agents could lead to greater likelihood of trade failure in the national clearance and settlement system than DTCC's approach. Such failures would be more likely due to a greater likelihood of problems with BSTP's (and other central matching services') interaction directly with DTC, NSCC and the custodian banks/settlement agents than would exist if such access were standardized through Omgeo. BSTP's proposal could also lead to a greater risk of trade failures due to interoperability problems between and among central matching services. The more central matching services providers to whom the Commission ultimately grants an exemption from registration under Section 17A that utilize BSTP's proposed dual access model, the greater this risk becomes.

V. Interoperability Conditions in Omgeo Exemptive Order must be Changed

DTCC continues to believe the interoperability timeframes in Omgeo's Exemptive Order are impractical, due to the systems changes necessary to implement interoperable central matching systems. This is because such conditions were imposed in 2001, when the U.S. national market system was significantly simpler, and the trading volume cleared through the national clearance and settlement system significantly lower. Omgeo's past experience in implementation of solutions on the partner level has shown the value in applying standard industry project management design and methodology to efficiently integrate diverse systems and reduce risk. Any attempt to rush interoperability between and among central matching services increases the chance of systemic failure, due to incompatibility among parties, and would greatly increase the likelihood and costs of trade failures.

VI. Application of Regulation SCI to Bloomberg L.P.'s Systems used to Operate BSTP's Central Matching Services

Bloomberg L.P.'s systems used to operate BSTP's central matching services should be subject to Regulation SCI and other business continuity and internal control requirements imposed on each of clearing agencies that support the national clearance and settlement system. Failure to impose such conditions on essential Bloomberg L.P. systems would enable a central matching service provider to avoid requirements set forth in Regulation SCI by outsourcing its operations to a wholly-owned, unregulated affiliate. In this case, BSTP CA-1 states that the systems that it will rely on to provide its services are maintained by Bloomberg L.P. and will be offered through the Bloomberg L.P. terminal system. Failure to impose such conditions uniformly across all

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<sup>7</sup> See also, Cornerstone Report at pp. 16-23.

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matching service providers would impose significant risk to the national clearance and settlement system due to systemic reliance on unregulated systems.<sup>8</sup>

\* \* \* \* \*

DTCC appreciates the opportunity to comment further on BSTP's Application in response to the Bloomberg Response Letter. Please contact the undersigned, at 212-855-3240, if you would like to discuss any of the items outlined above.

Sincerely,



Larry E. Thompson  
Vice Chairman and General Counsel

Cc: The Honorable, Mary Jo White, Chairman  
The Honorable Luis A. Aguilar, Commissioner  
The Honorable Daniel M. Gallagher, Commissioner  
The Honorable Kara M. Stein, Commissioner  
The Honorable Michael S. Piwowar, Commissioner  
Stephen I. Luparello, Director, Division of Trading and Markets  
Gary Goldsholle, Deputy Director, Division of Trading and Markets  
Christian Sabella, Acting Associate Director, Division of Trading and Markets  
Jeffrey Mooney, Assistant Director, Division of Trading and Markets

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<sup>8</sup> See Cornerstone Report at pp. 36-38, regarding additional issues raised by BSTP's Form CA-1 relating to Regulation SCI.

**EXHIBIT I**

**CORNERSTONE REPORT**

# **Economic Analysis of BSTP's Application for Exemption from Registration as a Clearing Agency**

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## **I. Executive Summary**

In February 2015, the Securities and Exchange Commission (“SEC” or “Commission”) published a notice of filing (“Notice of Filing”) of an application for exemption from registration as a clearing agency by Bloomberg STP LLC (“BSTP”).<sup>1</sup> BSTP requested this exemption in connection with its proposal to offer an electronic trade confirmation (“ETC”) service and a matching service.<sup>2</sup> In the Notice of Filing, the Commission solicited public comment on whether the proposed exemption is consistent with the public interest, investor protection, and the purposes of Section 17A of the Securities Exchange Act of 1934 (“Exchange Act”), as well as feedback on various additional questions.<sup>3</sup>

Cornerstone Research has been retained by The Depository Trust & Clearing Corporation (“DTCC”) to examine the economic implications of BSTP’s potential entry into the market as an exempt clearing agency providing an ETC service and a matching service. Currently only Omgeo LLC (“Omgeo”), a subsidiary of DTCC, has exempt clearing agency status for the purpose of providing ETC and matching services.<sup>4</sup>

Cornerstone Research is an economic and financial consulting firm with eight offices and more than five hundred staff. For more than twenty-five years, Cornerstone Research has provided economic and financial analysis in regulatory proceedings. Cornerstone Research has also been retained on various past occasions by the SEC and FINRA to provide independent research and analysis in connection with rulemaking and enforcement projects. The senior consulting staff members engaged in this project hold advanced degrees in economics and finance and have extensive experience in rulemaking, compliance, enforcement, and competition issues in all parts of the financial system, including the national clearance and settlement system.<sup>5</sup>

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<sup>1</sup> “Bloomberg STP LLC: Notice of Filing of Application for Exemption from Registration as a Clearing Agency,” Securities and Exchange Commission Release No. 34-74394, February 27, 2015; “Application for Registration or for Exemption from Registration as a Clearing Agency and for Amendment to Registration Pursuant to the Securities Exchange Act of 1934,” OMB Number 3235-0195, January 21, 2015 (“BSTP Application”).

<sup>2</sup> Notice of Filing, p. 1.

<sup>3</sup> Notice of Filing, pp. 21–22.

<sup>4</sup> “Global Joint Venture Matching Services – US, LLC; Order Granting Exemption from Registration as a Clearing Agency,” U.S. Securities and Exchange Commission, Release No. 34-44188, File No. 600-32, April 17, 2001 (“Omgeo Exemptive Order”).

<sup>5</sup> This report was authored by Dr. Stewart Mayhew and Dr. Darwin Neher of Cornerstone Research, and their work was supported by the staff of Cornerstone Research. Dr. Mayhew is a Vice President and a senior member of the Financial Institutions and Securities practice areas at Cornerstone Research. Previously, Dr. Mayhew served as deputy chief economist of

We have performed an analysis of economic issues relevant to the BSTP Application. This report summarizes some of these issues, provides a high-level overview of related economic concepts, and, where possible, provides relevant evidence and data. Among the economic issues raised by the BSTP Application are issues related to the reliance of BSTP on existing market infrastructure, systemic stability (i.e., risk), the introduction of additional systemic complexity, competition, pricing, prompt and accurate clearance and settlement (“efficiency”), and implications for other Commission rules.

Many of these issues have not been explicitly discussed or fully addressed in the BSTP Application or the Notice of Filing; however, they raise important questions regarding the stability and efficiency of post-trade processing for institutional trades in DTC-eligible securities, as well as issues relating to market structure, competition, and pricing in this market.

Late in the course of performing our analysis, SS&C Technologies, Inc. (SS&C), also filed an application for exemption from registration as a clearing agency.<sup>6</sup> This report focuses on the possible effects of, or complications with, BSTP’s proposed entry; however, many of the issues raised here likely apply to SS&C’s application.

### **A. Issues Related to BSTP’s Proposed Workflows**

The BSTP Application describes proposed workflows for offering a central matching service and an ETC service that would facilitate a sequential confirmation/affirmation (local matching) process but is silent on the extent to which BSTP or market participants using these services would continue to rely on Omgeo to provide other components of post-trade processing. Central matching, as defined, for example, in the Omgeo Exemptive Order, is the independent determination by an intermediary of whether trade data submitted by a broker-dealer (a confirmation, or “confirm”) match the trade data submitted by the institutional customer (an “allocation”) on whose behalf the broker-dealer (“BD”) trades. Such a match yields a matched

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the SEC. Dr. Neher is a Vice President and a senior member of the Antitrust and Competition practice area at Cornerstone Research. The views expressed in this report are solely those of the authors, who are responsible for the content, and do not necessarily represent the views of Cornerstone Research.

<sup>6</sup> “Self-Regulatory Organizations; SS&C Technologies, Inc.; Notice of Filing of Application for Exemption from Registration as a Clearing Agency,” Securities and Exchange Commission Release No. 34-74794, April 23, 2015 (“SS&C Notice of Filing”); “Form for Registration or for Exemption From Registration as a Clearing Agency and for Amendment to Registration as a Clearing Agency Pursuant to the Securities Exchange Act of 1934,” SS&C Technologies, Inc., March 30, 2015 (“SS&C Application”).

“affirmed confirm.” Central matching is distinct from, but technologically interconnected with, other components of post-trade processing and enrichment of institutional trades.

For example, Omgeo’s ALERT product maintains a database of account information and standing settlement instructions from which it “enriches” allocation messages with settlement instructions. Omgeo’s TradeSuite ID product (formerly known as the DTC ID system) issues a Control ID number, which is attached to the trade and referenced in each step of the transaction process. The Control ID is used to manage the delivery process of affirmed confirms and other messaging to investment managers (“IMs”), custodians, interested parties, and BDs, and is referenced in the archival recordkeeping process. Neither Omgeo’s ALERT product nor its TradeSuite ID product is involved in performing a central match, as that service is defined in the Omgeo Exemptive Order<sup>7</sup>; rather, those products provide services for other components of post-trade processing.

BSTP’s letter to the SEC dated May 21, 2015 (“BSTP Response”), makes clear that BSTP is contemplating minimal reliance on Omgeo for other components of post-trade processing.<sup>8</sup> Although BSTP makes representations to interoperate with other matching services, it appears that BSTP intends to develop a post-trade processing system completely independent of Omgeo and DTCC’s existing pre-settlement infrastructure. Because this is what BSTP is proposing, in considering BSTP’s entry it may be important to consider carefully the entire post-trade processing system, the extent to which market participants currently rely on Omgeo for critical components of post-trade processing other than central matching and ETC services, and the extent to which BSTP’s plans raise concerns about the economics, efficiency, and stability of the system.

For example, there are two fundamentally different ways that a matched affirmed confirm can be assigned a Control ID number and the settlement instructions sent to the necessary parties, including DTC: (1) BSTP could seek to develop a new, independent infrastructure that seeks to replicate all the integrated post-trade processing functions currently provided by Omgeo and DTC, without any reliance or interface with Omgeo, as suggested by the diagrams in the BSTP Application (and the discussion in the BSTP Response), thus creating

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<sup>7</sup> Omgeo Exemptive Order, fn. 6, 34.

<sup>8</sup> Letter from Ben McDonald to Brent J. Fields, Re: Bloomberg STP LLC; Notice of Filing of Application for Exemption from Registration as a Clearing Agency (File Number 600-33), May 21, 2015, pp. 5–17.

bifurcated access to DTCC (a “Dual Access” model); or (2) BSTP could develop a system to perform central matching and/or sequential confirmation/affirmation but then utilize the existing infrastructure provided by Omgeo and DTC to facilitate the controls and staging of settlement instructions, send notifications to the settling parties, send settlement instructions to DTC, and archive confirms (a “Single Access” model).

There may be considerable complexity, risk, and cost associated with the Dual Access model BSTP proposes. Market participants involved with settlement of trades matched by BSTP would need to develop, build and maintain separate interfaces and reengineer internal systems capable of receiving and processing settlement messages from BSTP. Similarly, DTC would have to develop, build, and maintain new systems to interoperate with BSTP and any other matching service (such as SS&C). The BSTP model bifurcates the systems and processes currently in place under the Single Access model. Research has found that certain components of the nation’s financial market infrastructure, which may include access to the settlement and clearance system, have characteristics such that the optimal solution appears to be for them to be provided by a single, regulated entity and not by multiple competing firms. For example, there appears to be little dispute that the core depository services currently being provided by DTC are more efficiently provided by a single depository than by multiple competing depositories. An important question raised by the BSTP Application is the extent to which components of post-trade processing other than central matching and ETC services are characterized by a similar economic structure such that a single provider would be optimal.

Additionally, the BSTP Application states that the introduction of BSTP as a second central matching service would enhance the reliability and stability of post-trade processing for institutional trading in DTC-eligible securities, purportedly because it eliminates the existing framework of a “single point of dependency.” This ignores the fact that if BSTP were to enter, users would need to be on both systems to take advantage of this type of redundancy. This appears contrary to the intent and framework of the interoperability conditions outlined in both the Omgeo Exemptive Order and the BSTP Application that require the matching services to “devise and develop interfaces with Other Central Matching Services that enable end-user clients or any service that represents end user clients...to gain a single point of access to...Other Central Matching Services. Such interfaces must link with each Central Matching Service so that an end-user client of one Central Matching Service can communicate with all end-user clients of all

Central Matching Services.”<sup>9</sup> Dual Access with such interoperability may add additional points of failure that could make the system more unstable and increase systemic risk.

## **B. Issues Related to Competition**

The BSTP Application asserts that BSTP’s entry would result in “price competition” and “the potential for new and innovative functionality” and that competition would “reduce costs to market participants;”<sup>10</sup> however, it provides no additional detail on how this competition would work in practice. There are several issues regarding competition that the BSTP Application does not address and that are relevant to meeting the goal of maintaining “fair competition” in the national system for the clearance and settlement of securities transactions.<sup>11</sup>

First, there are significant complexities associated with pricing in a marketplace with interoperating central matching services. In particular, it is not clear how customers of one central matching service who get services from the other central matching service (because this service performed a match to which the customer was a counterparty) are to be charged for these services. Interface charges, or the charges for the use of the interface between two interoperating central matching services, are similarly complex. The fact that interface charges would be negotiated between competing central matching services (per the Omgeo Exemptive Order, the BSTP Application, and the Notice of Filing) implies that the Commission’s oversight of this negotiation will be important. This oversight will also be important to any other revenue or pricing arrangements negotiated between competitors in order to deal with the complex provision of services in the interoperating marketplace.

Second, BSTP’s proposed governance structure may lead BSTP (a subsidiary of a for-profit entity) to price in such a way that does not serve the long-term best interests of the industry. Finally, it is unclear whether the national clearance and settlement system can effectively sustain competition between two central matching services. The outcome of competition may be that BSTP is the primary provider of central matching services. This market outcome suggests the importance of assessing the regulatory implications of having central

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<sup>9</sup> Omgeo Exemptive Order. See also BSTP Application, p. S-15, for similar language.

<sup>10</sup> BSTP Application, pp. S-2, S-5.

<sup>11</sup> Exchange Act, Section 17A.

matching services dominated by a non-utility that is governed as a subsidiary of a for-profit entity.

### **C. Issues Related to Efficiency**

BSTP's entry may affect the efficiency of post-trade processing for institutional trading in DTC-eligible securities. The BSTP Application represents that BSTP's new services would enhance the efficiency of post-trade processing based on a comparison of its central matching workflow ("Matching Workflow No. 1") with a "Manual" workflow and focusing on the fact that there are fewer steps involved in the central matching workflow and less manual re-keying in of the same data.

This is not the relevant comparison, because Omgeo already provides a central matching service, and BSTP is also proposing a sequential workflow ("Matching Workflow No. 2") in conjunction with its central matching workflow. Data from Omgeo provide evidence that central matching is more efficient than a sequential process for institutional DVP/RVP transactions, based on metrics such as same-day affirmation rates and overall affirmation rates. The data indicate that the sequential process yields significantly lower affirmation rates in the institutional DVP/RVP workflow model, which makes up a majority of DTC-eligible transactions.<sup>12</sup> Additionally, BSTP's entry may induce market participants to move from Omgeo's central matching service to a less efficient sequential model, or to delay moving to central matching.

The BSTP Application is also silent on the effect of interoperability on efficiency. If BSTP intends to send settlement instructions directly to DTC, this will create a bifurcation in settlement instruction messages across two central matching services. This bifurcation could affect the speed and accuracy of the confirmation/affirmation of settlement instructions and, as a result, have a downstream effect on the settlement process as a whole, especially for trades that use the interoperable interface.

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<sup>12</sup> We understand that the sequential process yields high affirmation rates in the more simplified "Prime Broker" workflow model.

#### **D. Issues Related to Other Commission Rules**

Further input from market participants may be informative about the risks and benefits associated with other Commission rules that might be collaterally affected through BSTP's potential entry.

BSTP's entry may lead to increased compliance requirements for market participants and may undermine the effectiveness of Regulation Systems Compliance and Integrity ("Reg. SCI"). Presumably, the Commission would require BSTP, Omgeo, and any other matching service to test their interoperable systems to ensure that the systems are consistent with the intent and requirements of Reg. SCI. However, the question of whether access to DTC is bifurcated following BSTP's entry could have significant implications on Reg. SCI compliance and the reliability and stability of the system.

In addition, BDs who are participants of the National Securities Clearing Corporation ("NSCC") may rely on the efficiency of the institutional trade settlement process to ensure that they are able to meet their delivery obligations to NSCC in a timely manner. Any impact of BSTP's entry on the prompt and accurate settlement of institutional trades could impose additional burdens on clearing firms as they seek to make timely deliveries and comply with applicable regulations such as Rule 204 of Regulation SHO ("Reg. SHO").

The remainder of this report is organized as follows. Section II provides an overview of the clearance and settlement of DTC-eligible securities and Omgeo's role in this process in the context of the national clearance and settlement system. Section III summarizes the key aspects of the BSTP Application, including the benefits that BSTP claims would result as a consequence of its entry. Section IV discusses BSTP's proposed workflows in light of the role of existing industry infrastructure, Section V discusses various competitive implications of BSTP's proposed entry, Section VI discusses issues related to efficiency, and Section VII discusses issues related to other Commission rules that might arise as a consequence of BSTP's potential entry.

## **II. Institutional Overview**

The BSTP Application relates to the provision of services related to post-trade processing of institutional delivery versus payment (DVP) and receive versus payment (RVP) trades<sup>13</sup> (together, “DVP/RVP”) in DTC-eligible securities. Any robust consideration and analysis of the economic and risk implications of the BSTP Application must be informed by a broader understanding of the clearance and settlement process, including the mechanics of post-trade processing for institutional DVP/RVP trades, the confirmation/affirmation and matching process, the role of each party involved in the process, the interrelationships between the steps involved in post-trade processing, and the regulatory structures within which the industry operates. Accordingly, this section provides a brief summary of these processes, the parties involved, and the regulatory structure.

### **A. Clearing and Settlement of DTC-Eligible Securities**

DTC, a subsidiary of DTCC, is a registered clearing agency that acts as the main depository of securities held through indirect ownership in the U.S.<sup>14</sup> A DTC-eligible security is tradable, fungible, and otherwise qualified to be held at DTC and traded and serviced through DTC’s electronic book-entry system.<sup>15</sup>

“Settlement” refers to the transfers of securities and cash resulting from trading in securities. For DTC-eligible securities, settlement involves cash transfers between DTC and DTC Participants’ settling banks, effected through the National Settlement Service of the Federal Reserve System, and book-entry transfers of securities between DTC Participant accounts on the books of DTC.

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<sup>13</sup> According to the SEC, “RVP services allow an institutional seller to require cash payment before delivering its securities at settlement. DVP services allow an institutional buyer to pay for its purchased securities only when the securities are delivered. Generally, [broker dealers] only extend RVP/DVP privileges to their institutional customers.” See “Interpretation: Confirmation and Affirmation of Securities Trade; Matching,” Securities and Exchange Commission Release No. 34-39829, April 6, 1998 (“SEC Matching Release”), fn. 3.

<sup>14</sup> “The Depository Trust Company,” DTCC, <http://www.dtcc.com/about/businesses-and-subsidiaries/dtc.aspx>, accessed on 4/2/15.

<sup>15</sup> DTC-eligible securities include, but are not limited to, “equities, warrants, rights, corporate debt and notes, municipal bonds, government securities, asset-backed securities, collateralized mortgage obligations, equity and debt derivatives, variable-rate demand obligations, money market instruments...American/global depository receipts (or “ADR/GDR”), shares of closed end funds, retail certificate of deposits, unit investment trust certificates (“UIT”), shares of exchange traded funds and insured custodial receipts.” Securities with unique processing requirements need to be evaluated for eligibility. “Operational Arrangements,” The Depository Trust Company, January 2012, <http://www.dtcc.com/~media/Files/Downloads/Settlement-Asset-Services/Underwriting/operational-arrangements.pdf>, accessed on 4/2/15, p. 223.



“Post-trade processing” refers to all the steps required after a trade is executed, up to and through the completion of the settlement process. One step of post-trade processing is the “clearance” process, which includes “confirming the details of the transaction and, when a central counterparty such as NSCC is involved, guaranteeing that the trade will settle even if one of the original parties defaults.”<sup>16</sup>

Post-trade processing of trades in DTC-eligible securities is accomplished through two primary mechanisms: one for broker-to-broker trades and one for institutional trades.<sup>17</sup> Trades involving a BD on both sides of the trade are cleared through clearinghouses, such as NSCC, a subsidiary of DTCC, which processes trades in equity, corporate, and municipal debt securities. For broker-to-broker trades clearing through NSCC’s Continuous Net Settlement (CNS) system, all settlement positions are netted down to one position per participant, with NSCC stepping in as the central counterparty intermediating the settlement of the trade.<sup>18</sup> Prime brokers, who typically represent hedge fund clients, follow a simpler workflow that feeds into the CNS system.

Institutional trades require a different mechanism for post-trade processing and settlement. An institutional investor (e.g., a registered investment company, pension fund, bank trust department, or insurance company) holds securities through a custodian bank that maintains a participant account at DTC, but has its trades executed through a BD.<sup>19</sup> For regulatory and/or business reasons, these are generally two different entities: the institutional investor’s custodian does not act as an executing BD, nor does its executing BD act as a custodian. Thus, clearing and settlement of institutional trades require a mechanism for transferring funds and securities back and forth between the custodian and the BD. Such obligations are typically settled using a DVP/RVP settlement process.

Moreover, an institutional investor generally uses an IM to trade on its behalf, which is generally an entity separate from both the custodian and the BD. An important characteristic of the institutional trading process is that the IM often conducts trading (places orders) on behalf of

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<sup>16</sup> “101 Key Terms You Need to Know about DTCC and Financial Market Infrastructures,” Depository Trust & Clearing Corporation, <http://www.dtcc.com/~media/Files/Downloads/About/government-relations/DTCC%20Glossary%20Jan%202014.pdf>, accessed on 4/29/15, p. 3.

<sup>17</sup> See “Following a Trade,” Depository Trust & Clearing Corporation, [http://164.109.172.95/downloads/about/Institutional\\_Trade.pdf](http://164.109.172.95/downloads/about/Institutional_Trade.pdf), accessed on 4/1/15 (“DTCC Following a Trade”).

<sup>18</sup> DTCC Following a Trade.

<sup>19</sup> DTCC Following a Trade.

multiple customers. A given IM therefore may buy (or sell) the same security on behalf of multiple investors (or different “accounts”). In order for these to settle properly, the IM must provide accurate “allocation”<sup>20</sup> information about how the securities should be assigned to the various accounts for which the IM is trading, and this information must be properly reflected in the subsequent settlement process.

Post-trade processing for institutional trades settled through DVP/RVP encompasses a series of actions and communications involving the IM, BD, custodian, and DTC, including the allocation of trades across accounts, creation of an “affirmed confirm,” sending of confirmations to the IM and custodian in satisfaction of regulatory requirements, enhancing the affirmed confirm with account-specific settlement instructions and a Control ID, sending the Control ID to the custodian and BD, and sending settlement instructions to DTC.

Final settlement of the institutional DVP/RVP trade can only occur at DTC after it receives settlement instructions that reflect the affirmed confirm plus other relevant settlement details. For “regular-way” trades, settlement is scheduled to occur on T+3, the third business day following the trade execution.<sup>21</sup> If there is a delay in the post-trade processing leading up to settlement such that DTC has not received the affirmed deliveries by noon on T+2, DVP/RVP deliveries can still be made through DTC, however, historically, these deliveries have a higher fail rate on T+3.

## **B. Sequential Confirmation/Affirmation and Central Matching**

The BSTP Application refers to proposed matching and ETC services that would perform certain steps of post-trade processing. Most critically, it refers to the creation of the “affirmed confirm” through a sequential process or a “matched affirmed confirm” through a central matching process.

The confirmation/affirmation process is the process of confirming and affirming trade details for institutional trades in DTC-eligible securities. It is the process whereby both the IM and the BD (counterparties to the trade) verify and agree to the trade details. This agreement (the affirmed confirm) then forms the basis of the settlement instructions and is a detailed final record

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<sup>20</sup> Allocation is the designation of portions of a block level trade to specific accounts. “Omgeo Product Overview,” Omgeo, July 21, 2014 (“Omgeo Product Overview”), p. 18.

<sup>21</sup> “93-77 SEC Adopts Rule 15c6-1; Establishes Three-Business-Day Settlement for Securities Transactions,” FINRA, October 12, 1993, [http://finra.complinet.com/en/display/display\\_main.html?rbid=2403&element\\_id=1562&print=1](http://finra.complinet.com/en/display/display_main.html?rbid=2403&element_id=1562&print=1), accessed on 4/2/15.

of the trade that is distributed to relevant parties (the IM, the BD, and the custodian) and archived. The process ensures that any discrepancies are identified and corrected prior to a final recording of the trade and prior to settlement.

An important step in the confirmation/affirmation process, as defined in the Omgeo Exemptive Order and BSTP Application, is the comparison of allocations originating from the IM with trade details originating from the BD.<sup>22</sup> Trades need to be compared (matched) on details such as buy/sell, share/face value, security identifier, and net settlement amount so that trade counterparties are sure they are trading exactly as they intended.

There are two primary workflows associated with this matching: sequential confirmation/affirmation (sometimes known as a “local matching” workflow), and central matching. The sequential confirmation/affirmation process is multi-step and requires the IM to send the allocation message, wait for a confirmation from the BD, and, upon receipt of that confirmation, affirm the trade details (comparing the allocation message with the confirmation message).<sup>23</sup> Central matching removes the affirmation step by making it implicit in the initial allocation and letting a central matching service automatically generate the affirmation.<sup>24</sup> In other words, in central matching a central matching service receives the allocation message from the IM and the confirmation message from the BD. It matches the two and generates a matched affirmed confirm.<sup>25</sup> In the sequential process, an ETC service facilitates communication among the parties and upon getting the affirmation from the IM (or an agent of the IM, such as a custodian) generates an affirmed confirm.

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<sup>22</sup> BSTP Application, p. J-2; Omgeo Exemptive Order, fn. 34.

<sup>23</sup> The Boston Consulting Group, “Cost benefit analysis of shortening the settlement cycle,” October 2012 (“BCG Shortened Settlement Cycle Paper”), p. 64. The affirmation could also be done by an agent of the IM, such as a custodian bank.

<sup>24</sup> “BCG Shortened Settlement Cycle Paper,” p. 64.

<sup>25</sup> “Matching is the term used to describe the process whereby an intermediary independently determines whether trade data submitted by a broker-dealer (i.e., confirmation information) matches the trade data submitted by the broker-dealer’s institutional customer (i.e., allocation information). If the information matches, the intermediary generates an affirmed confirmation to the broker-dealer and the institution.” Omgeo Exemptive Order, fn. 34. The Omgeo Exemptive Order further defines central matching as “an electronic service to centrally match trade information between a broker-dealer and its institutional customer (so long as one or both of such parties is a U.S. person) relating to transactions in securities issued by a U.S. issuer, regardless of where the transactions are settled.” Omgeo Exemptive Order, fn. 6.

### **C. Omgeo**

The SEC granted Omgeo exempt clearing agency status in 2001.<sup>26</sup> As an exempt clearing agency, Omgeo offers both central matching services and services supporting sequential matching (ETC services).<sup>27</sup> Omgeo is a wholly owned subsidiary of DTCC,<sup>28</sup> which is a user-owned cooperative.<sup>29</sup> Omgeo is governed by a board of managers that is majority-controlled by industry representatives.<sup>30</sup>

Omgeo facilitates (automates and streamlines) post-trade communications between IMs, BDs, and custodian banks with services for allocation and other messaging, standing settlement instruction (“SSI”) enrichment, central matching, and settlement instruction transmission.<sup>31</sup>

Omgeo provides allocation services that communicate trade and allocation details between IMs, which send allocations, and BDs, which accept these allocations. Following trade execution, Omgeo sends allocations from IMs to BDs, which allow BDs to accept or reject trade details and allocations.<sup>32</sup>

IMs and BDs can use Omgeo’s SSI database (ALERT) in conjunction with Omgeo’s allocation and central matching services to enrich the allocations with account and standing settlement instructions automatically. When an IM submits an allocation, ALERT validates the data in the settlement fields against data validation rules derived from its database.<sup>33</sup> Examples of settlement fields include securities codes, client codes, settlement methods, and effective date.<sup>34</sup>

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<sup>26</sup> Omgeo Exemptive Order, p. 1.

<sup>27</sup> Clearing agency, or exempt clearing agency, status is not required in order to offer ETC services relevant to the confirmation/affirmation process. However, per FINRA Rule 11860, if not provided by a clearing agency or exempt clearing agency these services may only be offered by a qualified vendor.

<sup>28</sup> “What We Bring to the Table,” Omgeo, <http://www.omgeo.com/aboutomgeo>., accessed on 4/17/15.

<sup>29</sup> “DTCC: An Overview,” DTCC, August 2013, <http://www.dtcc.com/~media/Files/Downloads/About/government-relations/LThompson-DTCC-Overview-Aug2013.pdf>, accessed on 4/17/15.

<sup>30</sup> “Corporate Governance,” Omgeo, [http://www.omgeo.com/page/boardmembers\\_exp](http://www.omgeo.com/page/boardmembers_exp), accessed on 4/17/15. This structure was initially put in place via the Omgeo Exemptive Order, II.A. Omgeo, which was initially a joint venture between DTCC and Thomson Financial, Inc., has since become a wholly owned subsidiary of DTCC. See “DTCC Acquires 100% of Omgeo,” Omgeo, October 2, 2013, [https://www.omgeo.com/page/dtcc\\_acquires\\_omgeo](https://www.omgeo.com/page/dtcc_acquires_omgeo), accessed on 4/1/15 (“DTCC Acquires 100% of Omgeo”).

<sup>31</sup> DTCC Acquires 100% of Omgeo.

<sup>32</sup> “Omgeo OASYS,” Omgeo, <http://www.omgeo.com/document/a0v30000002pnYf>, accessed on 4/30/15.

<sup>33</sup> “Omgeo ALERT<sup>SM</sup> Settlement Instructions and Validation Rules,” Omgeo, July 11, 2013, [www.omgeo.com/document/DV29532WJU](http://www.omgeo.com/document/DV29532WJU), accessed on 4/1/15 (“Omgeo ALERT Settlement Instructions and Validation Rules”), p. 7.

<sup>34</sup> “Omgeo ALERT Settlement Instructions and Validation Rules,” pp. 9–14.

In the U.S., Omgeo's central matching services match allocations and trade information before settlement.<sup>35</sup> Omgeo's central matching services receive the allocation from the IM and the confirmation from the BD and then compare them. If the two match, the information is fed into TradeSuite ID, which generates a matched affirmed confirm to send to the IM, the BD, and the custodian. In the sequential process, Omgeo's systems together with TradeSuite ID facilitate the sequential confirmation/affirmation process.

After the central matching, or sequential confirmation/affirmation, process is complete, TradeSuite ID generates a Control ID number for the affirmed confirm. The Control ID is appended and then TradeSuite ID sends the affirmed confirm, or matched affirmed confirm, to the IM, BD, and custodian. TradeSuite ID also sends settlement instructions, including the Control ID, to DTC. The Control ID is a key part of the settlement process. The Control ID is used to identify transactions when settling parties authorize settlement and is integrated into other technologies related to the settlement process, such as settlement matching and netting services.<sup>36</sup>

In summary, Omgeo's suite of products moves a trade through the post-execution process into the pre-settlement process by leveraging several separate and distinct functions including (i) enrichment; (ii) matching; and (iii) settlement staging, access, and delivery. The end product is an enriched and data-validated set of settlement instructions, electronically agreed to by the counterparties, which is delivered to DTC.

Omgeo also facilitates the archiving process for its IM and BD clients to assist them in meeting their recordkeeping requirements under Rules 17a-3 and 17a-4 as well as under Investment Adviser's Act Rule 204, as described above. Omgeo's TradeSuite ID Confirm Archive service provides an online service that gives users access to ten years of confirmation history and the ability to pull their confirmations seamlessly.<sup>37</sup> The SEC granted 'No Action' letters to buy- and sell-side clients, allowing them to use Omgeo to fulfill their confirmation

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<sup>35</sup> Omgeo has a global product called Omgeo CTM, which provides central matching of cross-border and domestic transactions. Clients can also use Omgeo ALERT for enriching Omgeo CTM settlement instructions. See, e.g., "Omgeo Central Trade Manager," Omgeo, <https://www.omgeo.com/ctm>, accessed on 4/1/15.

<sup>36</sup> "Increasing Certainty and Promoting Intraday Settlement Finality: A Service Description for Settlement Matching," DTCC, March 2013, [http://www.dtcc.com/~media/Files/Downloads/WhitePapers/Service\\_Description\\_Settlement\\_Matching\\_March2013.ashx](http://www.dtcc.com/~media/Files/Downloads/WhitePapers/Service_Description_Settlement_Matching_March2013.ashx), accessed on 4/20/15, p. 14; "Confirmations and Affirmations" in "TradeSuite ID Operating Procedures," February 10, 2014, [www.omgeo.com/document/DV3390VLIQ9](http://www.omgeo.com/document/DV3390VLIQ9), accessed on 3/20/15, p. 28.

<sup>37</sup> "Omgeo TradeSuite ID Confirm Archive," Omgeo, [www.omgeo.com/document/a0v3000002UZGr](http://www.omgeo.com/document/a0v3000002UZGr), accessed on 6/23/15.

archive management requirements and eliminating the need for them to rely on their own archival systems.<sup>38</sup>

### **III. BSTP's Application for Exemption**

In its application for exemption from registered clearing agency status, BSTP proposes offering both central matching services and ETC services that would facilitate a sequential confirmation/affirmation process. The BSTP Application describes two workflows through which BSTP would potentially provide new post-trade processing services. In the first, BSTP would provide a central matching service.<sup>39</sup> As discussed above, matching involves an intermediary comparing trade data submitted by a BD to allocation instructions submitted by an institutional customer and generating a matched affirmed confirm. The Commission has determined that matching is a clearing agency function and thus must be performed by a registered clearing agency or by an exempt clearing agency. Thus, BSTP cannot operate a central matching service without either registering as a clearing agency or obtaining exemptive relief.

The BSTP Application also describes a second workflow.<sup>40</sup> Although characterized as a “matching workflow” in the application, it appears that BSTP would be acting not as a central matching service but as an ETC service. As discussed above, an ETC service involves transmitting messages among BDs, institutional customers, and custodian banks, ultimately resulting in the production of an affirmed confirm.<sup>41</sup> Unlike a central matching service, an ETC service does not compare or match trade information but instead sends the information to the IM or an agent acting on its behalf (such as the custodian) to perform the comparison.

The BSTP Application states that BSTP's services would be offered by enhancing the existing VCON function within the Bloomberg PROFESSIONAL service to include matching services.<sup>42</sup>

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<sup>38</sup> Omgeo TradeSuite ID SEC ‘No Action’ Letters, Omgeo, <http://www.omgeo.com/document/a0v30000000bwbdv>, accessed on 4/30/15 (“Omgeo TradeSuite ID SEC ‘No Action’ Letters”).

<sup>39</sup> BSTP Application, Figures J-3 and J-4.

<sup>40</sup> BSTP Application, Figures J-7 and J-8.

<sup>41</sup> Omgeo Exemptive Order, II.B.

<sup>42</sup> BSTP Application, p. S-7.

BSTP further states that its entry will provide benefits to the market by “(i) adding choice and redundancy and eliminating a single point of dependency, thereby increasing the reliability and stability of matching service support to market participants, (ii) decreasing overall costs to market participants, and (iii) through introduction of competition, increasing the potential for development of new and improved functionality.”<sup>43</sup> It also states that its entry into the market for confirmation/affirmation matching services will “serve the goal of straight through processing,” improve the speed and accuracy of the confirmation/affirmation/match process, reduce risk by eliminating a single point of dependency, reduce the time related in the post-trade process, increase the overall matching capacity in the market, and foster competition.<sup>44</sup>

#### **IV. BSTP’s Proposed Workflows**

The BSTP Application describes proposed workflows for offering a central matching and ETC service that would facilitate a sequential confirmation/affirmation (local matching) process but is silent as to the extent to which BSTP or market participants using these services would continue to rely on Omgeo to provide other components of post-trade processing. It is also silent on the mechanics of how BSTP’s services would work in conjunction with the Omgeo components. However, the BSTP Response makes clear that BSTP is contemplating minimal reliance on Omgeo for other components of post-trade processing.<sup>45</sup> This suggests that BSTP would operate as a fully redundant, standalone system offering all components of post-trade processing without any involvement from Omgeo, contrary to the intent of the interoperability conditions found in the Omgeo Exemptive Order (and largely reiterated in the BSTP Application). If this is indeed what BSTP is proposing, it is important to consider carefully the entire post-trade processing system, the extent to which interoperability can be implemented, the extent to which market participants currently rely on Omgeo for critical components of post-trade processing other than central matching and ETC services, and the extent to which BSTP’s plans raise concerns about the economics, efficiency, and stability of the system.

For example, it may be important to review the functionality of Omgeo’s TradeSuite ID system, an ancillary service used outside the central matching process. Within post-trade

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<sup>43</sup> BSTP Application, p. J-10.

<sup>44</sup> BSTP Application, pp. S-1–S-6.

<sup>45</sup> BSTP Response, pp. 5–17.

processing, this system provides critical functions that are distinct from central matching as it is defined in the Omgeo Exemptive Order but are tightly integrated with DTC settlement functions. These include the generation of a Control ID used in the settlement process, the dissemination of settlement instructions to market participants and DTC, the staging of the settlement instructions within DTC systems, and the archiving of affirmed confirms to facilitate customer compliance with recordkeeping rules. The BSTP Application appears to be premised on the assumption that the Control ID is currently provided by DTC rather than Omgeo,<sup>46</sup> and in its response BSTP suggests that this function could be moved over to DTC, or the industry could move to having multiple systems for providing Control IDs.<sup>47</sup>

The remainder of this section elaborates on this issue and other related issues that arise in connection to the question of how BSTP will rely on and interact with the existing post-trade processing infrastructure currently provided by Omgeo and DTC.

#### **A. Settlement Instructions and DTC Access: Economic Considerations**

Central matching, as discussed above and defined in the Omgeo Exemptive Order, is a specific service embedded within the overall process of post-trade processing. Central matching is the independent determination by an intermediary of whether trade data submitted by a BD match the trade data submitted by the institutional customer on whose behalf the BD trades.<sup>48</sup> Thus, central matching, so defined, is distinct from, but technologically interconnected with, other components involved in the post-trade processing of institutional trades. These other components include the exchange of post-trade messages between BDs, custodians, and institutions, the enrichment of messages with account information and standing settlement instructions, the appending of a Control ID to affirmed confirms, the transmission of settlement instructions to DTC, and the archiving of affirmed confirms to enable market participants to comply with recordkeeping requirements.<sup>49</sup>

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<sup>46</sup> BSTP suggests that it is DTC that generates the Control ID, when, in fact, this number is generated by Omgeo. See BSTP Application, p. J-2; “How TradeSuite ID Works” in “TradeSuite ID Operating Procedures,” February 10, 2014, [www.omgeo.com/document/DV3390VLIQ9](http://www.omgeo.com/document/DV3390VLIQ9), accessed on 3/20/15, p. 18. Note that the BSTP Application only makes this clear in the section seeking Qualified Vendor Status. BSTP Application, p. S-12. The SEC has BSTP obtaining this control number from DTC as part of the matching service. Notice of Filing, p. 4.

<sup>47</sup> BSTP Response, pp. 13–14.

<sup>48</sup> Omgeo Exemptive Order, fn. 6, 34.

<sup>49</sup> Many of these components are also distinct from ETC services that would facilitate a sequential confirmation/affirmation process.



As discussed above, the suite of services currently provided by Omgeo covers all the steps in the post-trade processing cycle. Omgeo's central matching services provide technology for sending allocation information and performing central matching. Through its ALERT product, Omgeo maintains a database of account information and standing settlement instructions, which is used to enrich allocation messages. Omgeo's TradeSuite ID product incorporates a number of important pre-settlement processes.

Importantly, neither Omgeo's ALERT product nor its TradeSuite ID product is involved in performing a central match as that service is defined. The services that those products provide are other, non-matching components of post-trade processing.

However, as mentioned above, it appears that BSTP intends to develop a post-trade processing system that is completely independent of Omgeo, even though the proposed conditions for BSTP's exemption require interoperability. In addition, BSTP does not specify how it would develop and implement an independent, non-interoperable post-trade infrastructure without the critical functions performed by services such as ALERT and TradeSuite ID.

As described above, the Omgeo ALERT system is a central database, updated on an ongoing basis, where IMs maintain their current account information and settlement instructions. When the IM, or custodian on its behalf, sends allocation instructions to the BD (a message instructing the BD how its trades should be allocated across accounts), ALERT is then used to enrich or supplement the allocation message with the appropriate settlement instructions.

Historically, ALERT has been provided by Omgeo as part of its integrated package of services that covers all phases of post-trade processing. The enhancement of allocation messages occurs prior to the central matching or sequential confirmation/affirmation process, because it provides the BD with information it needs to create confirmations. The BSTP Application does not specify whether users of the proposed system would use Bloomberg/BSTP technology to enhance allocation messages, or whether users would be able to continue to use Omgeo ALERT. Our understanding is that Omgeo already is in the process of converting ALERT into an industry utility that could be accessed by market participants that are not users of Omgeo's services. Soliciting additional information from BSTP about whether it plans to use ALERT and consulting with Omgeo to obtain additional information about the technological steps required for BSTP to access ALERT may provide a fuller picture of how BSTP's systems may operate

and more information on the developmental steps required for BSTP to implement its proposed systems.

For trades that are centrally matched, as well as for trades that use a sequential confirmation/affirmation process, TradeSuite ID currently provides services beyond the allocation and matching functions. These include generating a Control ID, appending the Control ID to the matched affirmed confirm, sending it to the IM, custodian, and BD, sending settlement instructions to DTC, and archiving.

In evaluating the risks, benefits, and costs of the BSTP Application, it is important to consider the economic implications of the various possible ways BSTP could implement its proposed central matching and ETC services. After BSTP has matched a trade using its matching service or facilitated an affirmed confirm using its ETC service, there are two fundamentally different ways that the resulting matched affirmed confirm could be given a control number and settlement instructions could be sent to the necessary parties.

First, BSTP could develop a new, independent infrastructure to replicate all the post-trade processing functions currently provided by TradeSuite ID without any reliance on or interface with TradeSuite ID, as suggested by the diagrams in the BSTP Application and the BSTP Response. This “Dual Access” model would bifurcate access to DTC. Alternatively, BSTP could employ a “Single Access” model and develop systems to perform central matching and/or sequential confirmation/affirmation but then rely on the existing infrastructure provided by TradeSuite ID.

Single Access would allow BSTP (and any other new matching services) to leverage the existing functionality, systems, and network of connections between industry participants and new matching services. This may enhance entry. To the extent that new systems are required to achieve interoperability of the central matching function between BSTP and Omgeo’s central matching services, presumably much of the cost burden associated with developing new systems would thus be borne by BSTP and Omgeo, with relatively little direct cost burden on other participants such as custodians and BDs, as these participants could continue to use the systems they currently have in place.

Conversely, if BSTP seeks to develop a Dual Access model that operates independently of Omgeo, and in particular does not utilize TradeSuite ID, it appears that BSTP would have to develop an alternative way to distribute messages to custodians, BDs, and other market

participants that are not currently connected to BSTP. Further, it appears that any market participant involved with settlement of trades matched by BSTP would need to have systems capable of receiving and processing settlement messages from BSTP. Currently, market participants who interface with Omgeo use a wide variety of technologies, including proprietary systems and systems provided by dozens of different vendors.<sup>50</sup> Should BSTP enter with a Dual Access model, each of these market participants and vendors would presumably have to modify its systems to accommodate receiving and processing messages from BSTP.

Furthermore, DTC no longer has a system in place for issuing Control IDs for institutional trades, as that function was passed to Omgeo in 2001.<sup>51</sup> Presumably, under a Dual Access model DTC would also have to develop new systems to interoperate with BSTP and to generate control numbers.<sup>52</sup> If BSTP is contemplating a Dual Access model, further information regarding the cost and time that would be required to develop such a system may be useful. The technological complexities of developing a new infrastructure and DTC operating a system with Dual Access may lead to new kinds of processing errors. DTC, Omgeo, and BSTP would have to develop or modify systems to accommodate new fields, rules, procedures, reconciliation routines, and protocols for how to handle multiple inputs. In addition, significant quality assurance, capacity, throughput, and performance benchmark testing would be required.

Although the BSTP Response briefly discussed the issue of how the Control ID would be generated under Dual Access, it is our understanding that generating and distributing the Control ID is just one of many post-trade processing and pre-settlement functions, processes, and validations that are integrated between TradeSuite ID and DTCC. The BSTP Application and Response are silent regarding these complexities. These processes have been developed over the decades in response to the needs of the marketplace for a robust, reliable system. These components are outside of the central matching system, so defined, but are essential parts of the

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<sup>50</sup> See "Omgeo Global Alliances and Certified Partners," <https://www.omgeo.com/page/partnerdirectory>, accessed on 4/30/15.

<sup>51</sup> DTC's ID service was transferred to Omgeo in two steps. First, DTC applied to transfer ownership of TradeSuite to the joint venture between DTCC and Thomson Information Services Inc. in 2000. See "Depository Trust Company Rulemaking: Notice of Filing of Proposed Rule Change re: Combination of DTC's TradeSuite Institutional Trade Processing Services with Thomson Financial ESG's Institutional Trade Processing Services," Securities and Exchange Commission, Release No. 34-43541, November 9, 2000. Next, the transfer was approved by the SEC on the date of the Exemptive Order. See "Self-Regulatory Organizations; The Depository Trust Company; Order Approving a Proposed Rule Change Relating to the Combination of The Depository Trust Company's TradeSuite Institutional Trade Processing Services with Thomson Financial ESG's Institutional Trade Processing Services," Securities and Exchange Commission, Release No. 34-44189, April 17, 2001 ("2001 Order Approving a Proposed Rule Change Relating to TradeSuite"). See generally, Omgeo Exemptive Order, fn. 14.

<sup>52</sup> The BSTP Response suggests that either the Commission should mandate that the control number functionality is transferred back to DTC, or BSTP should be allowed to themselves generate control numbers. BSTP Response, p. 14.

staging process critical to the efficient operation of the settlement process.<sup>53</sup> Extricating these processes to support a Dual Access model will likely require reengineering and replication. Ultimately, these processes and validations would also likely need to be further replicated and re-implemented to support each new matching service (e.g., SS&C) if each sought to provide its own infrastructure. Thus, in evaluating the risks of the Dual Access model, an important consideration would be the complexities associated with re-engineering and bifurcation of these critical processes, including the likelihood that doing so would introduce additional points of failure, potential security breaches, and system defects, and a potential increase in the probability of system downtime and settlement failures. Such re-engineering and replication may also introduce delays to the ability of a new matching service to enter the marketplace. The Single Access model does not raise these concerns and places the focus of entry on establishing central matching interoperability.

Certain components in the nation's financial market infrastructure have inherent economic and structural characteristics such that the optimal solution appears to be for the service to be provided by a single, regulated entity and not by multiple competing firms. Economists analyze markets to determine if the cost structure of the market is such that it is cheaper for a single firm to fulfill market demands than it is for two or more firms to do so.<sup>54</sup> Such cost conditions are most commonly met when firms have high fixed costs and low marginal costs of production, or there are *economies of scale*.<sup>55</sup> Alternatively, this condition can also be met if the number of users of a product increases the value of the product to a given user, that is, if there are strong *network effects* in the demand for the product.<sup>56</sup> Such network effects can

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<sup>53</sup> Based on conversations with Omgeo, we understand that these processes include systems that stage trades in DTC settlement tables based on "Affirmed" status, validation to determine whether automated settlement processing is permitted, validation of clearing brokers and agents as participants at DTC, validation to determine that the security ID is DTC eligible, validation to determine the eligibility of securities for settlement through specific settlement destinations, processing changes in security ID or DTC participant eligibility validations, intraday processing for staged trades, and checking related to Receiver Authorized Delivery (RAD).

<sup>54</sup> Carlton, D. and J. Perloff (2000), *Modern Industrial Organization*, 3<sup>rd</sup> ed., Addison Wesley Longman Press ("Carlton and Perloff"), p. 664. Technically, this characteristic, inherent in a so-called "natural monopoly," is said to occur if the cost function of a firm is globally sub-additive, that is, sub-additive over the entire range of market demand:  $C(Q) < C(q^1) + C(q^2) + C(q^3) + \dots + C(q^k)$ , where  $k$  is the number of firms in the market,  $q^k$  represents the quantity produced by the  $k^{\text{th}}$  firm,  $C$  is the cost function, and  $Q$  is the total quantity demanded by the market; Joskow, P., "Regulation of Natural Monopolies," in Polinsky, A.M. and S. Shavell (2007), *Handbook of Law and Economics*, 1<sup>st</sup> ed., Elsevier ("Joskow"), pp. 1235–1236.

<sup>55</sup> Joskow, p. 1233.

<sup>56</sup> Such effects could either be direct, where an increase in the number of users in the network directly increases the value to a given user, or indirect, where an increase in the number of users in the network lowers the price of the product or increases the availability of complementary products. Carlton and Perloff, pp. 373–375. For example, having more users using a landline telephone system leads to a direct network effect—a given user can call more people. On the other hand, having more people use

facilitate having only a single firm operate a network in a given market, as opposed to multiple firms providing various aspects of the network or rival networks.<sup>57</sup>

Academic research in economics has also found that clearing and settlement markets more generally are characterized by substantial economies of scale and scope.<sup>58</sup> Such a structure favors a single provider.

For example, DTC is a registered clearing agency that provides central depository services for corporate and municipal securities in the U.S. Due to the nature of DTC's business, which involves share immobilization, indirect share registration, and book-entry ownership, many of the efficiencies of the depository would be lost if the market were bifurcated across two (or more) depositories. Due to the structure and network externalities of the depository, and the economies of scale that arise therefrom, it is unlikely that a second depository could be viable.

Similarly, there is currently only one clearinghouse in the U.S. (NSCC) that provides central clearing for broker-to-broker equity trades. Both DTC and NSCC provide essential industry infrastructures and can be characterized as having economies of scale, with high fixed costs, low marginal costs, and a large network of industry participants using a single centralized system.<sup>59</sup>

The creation of the Control ID, the transmission of the Control ID to the parties involved in settlement, and the transmission of settlement instructions to the DTC are critical components of post-trade processing currently provided by Omgeo's TradeSuite ID. These steps are distinct from and occur after central matching. This service is vital to the timely and accurate settlement of trades at DTC, because the parties involved in the settlement need to send messages such as final settlement authorizations to DTC and DTC uses the Control ID to apply the authorization to

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a particular type of mobile phone can lead to the creation of a wider variety of accessories for that mobile phone—an example of an indirect network effect.

<sup>57</sup> Carlton and Perloff, pp. 373–374.

<sup>58</sup> This literature focuses on central clearing and settlement systems and not on the confirmation/affirmation and matching services provided by Omgeo. See, e.g., Pirrong, C. (2007), "The Industrial Organization of Execution, Clearing, and Settlement in Financial Markets," Working Paper; Schmiedel, H., M. Malkamaki, and J. Tarkka (2006), "Economies of Scale and Technological Development in Securities Depository and Settlement Systems," *Journal of Banking and Finance*, Vol. 30, Issue 6, pp. 1783–1806.

<sup>59</sup> As stated by the Commission, "Two important characteristics of the market for clearance and settlement services are high fixed costs and economies of scale. Large investments in risk management and information technology infrastructure costs, such as financial data database and network maintenance expenses, are components of high fixed costs for clearing agencies. Consequently, the clearance and settlement industry exhibits economies of scale in that the average total cost per transaction, which includes fixed costs, diminishes with the increase in transaction volume as high fixed costs are spread over a larger number of transactions." "Standards for Covered Clearing Agencies," Proposed Rule, Securities and Exchange Commission, 17 CFR Part 240, Release No. 34-71699, File No. S7-03-14, <https://www.sec.gov/rules/proposed/2014/34-71699.pdf>, accessed on 4/30/15.

the appropriate trade. Thus, similar to DTC and NSCC, TradeSuite ID provides important market infrastructure that is essential to the proper functioning of the market. Also like DTC and NSCC, TradeSuite ID may have high fixed and low variable costs and acts as the hub of a network involving a large number of industry participants involved with the settlement of trades (e.g., custodians, BDs).

In considering the Dual Access model apparently being pursued by BSTP, soliciting further comment from market participants and performing further economic analysis investigating the economic structure of services other than central matching provided by Omgeo's TradeSuite ID may be relevant. Specifically, a potentially important issue is whether TradeSuite ID, in its roles of creating and distributing Control IDs, facilitating access to DTC, and providing its archiving service, as well as its network of connections to the custodian community, is more efficient and less risky than bifurcating these functions across multiple providers, which ultimately may result in exit and a potentially disruptive reversion to a single-provider market.

The Notice of Filing does not fully clarify whether the "interoperability" conditions specified in the Omgeo Exemptive Order, including the pricing conditions relating to interface charges, are limited to interoperability between Omgeo and other central matching services with respect to the technology required to perform the match, or whether they also apply with respect to accessing the other ancillary services that Omgeo provides that are not part of matching, such as Omgeo ALERT, TradeSuite ID, and the Confirm Archive service. These services are vital to post-trade processing, and many market participants rely on them.

If the interoperability conditions of the Omgeo Exemptive Order were interpreted in such a way that would undermine the ability of Omgeo to charge for these (non-central matching) ancillary services or preclude Omgeo from charging BSTP the same rate it charges other market participants, a possible result might be to destabilize Omgeo's business model to the point that it might no longer be economically feasible for it to continue to provide these services. Given the widespread use of these services by market participants, such a development could be highly disruptive and undermine the Commission's goals of promoting soundness and stability in the nation's clearing and settlement infrastructure.

Further information from market participants may be useful in evaluating whether a Dual Access model, whereby BSTP replicates a separate infrastructure, may be economically

inefficient. In particular, it may be that a Dual Access approach would impose significant development challenges to market participants and may be an attempt to extend competition to areas outside of central matching that may more appropriately be facilitated through a single provider.

## **B. Stability and Systemic Risk**

The BSTP Application represents that the introduction of BSTP as a second central matching service would enhance the reliability and stability of the post-trade processing environment for institutional DVP/RVP trades by eliminating a “single point of dependency.”<sup>60</sup> Presumably, the idea here is that if there are two central matching services operating in parallel and systems problems make one central matching service temporarily unavailable or unreliable, market participants could move to the other central matching service. As long as either of the two services is fully operational, the argument goes, post-trade processing can proceed as normal.

This argument seems to presume that the two matching services are independent and redundant, and that all market participants have full access to both and can switch seamlessly back and forth. It is not clear from the BSTP Application that this is how the infrastructure would actually work after BSTP's entry. As mentioned above, the BSTP Application and Notice of Filing require interoperability at the central matching level<sup>61</sup>—that is, as will be discussed below, the two systems, operating together, should have the capability to match a trade where some of the participants are connected to the system through BSTP and others through Omgeo. Thus, the BSTP Application appears to contemplate moving from today's system, where central matching is implemented through an integrated system operated by a single provider (a system that is already in operation and has an established track record) to a new one in which central matching requires coordination between two systems operated by different providers, where failure in either of the two or in the interface between them can cause systemic problems. A

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<sup>60</sup> BSTP Application, p. J-10.

<sup>61</sup> BSTP Application, Interoperability Conditions 1–18; Notice of Filing, Interoperability Conditions 1–18.

process with multiple interdependent systems and multiple points of failure is likely to be more complex and have greater potential for instability or disruption than a single system.<sup>62</sup>

In a situation where the IM is a customer of BSTP, the BD is a customer of Omgeo, and BSTP has no direct connection to the BD and instead relies on Omgeo's connection to communicate with the BD, BSTP could not complete the match if Omgeo's system were to fail, nor could Omgeo complete the match if BSTP's system were to fail. If interoperability were implemented in such a way that the failure of either service or a failure in the interface could bring down the system, this would not eliminate a single point of dependency but rather would add additional points of failure that could make the system more unstable and increase systemic risk.

Additional complications are likely to arise under interoperability if BSTP accesses DTCC directly through a Dual Access model and not through the existing settlement infrastructure. For example, consider an interoperable system in which the custodian communicates with DTC through Omgeo but the BD communicates with DTC through BSTP. Suppose that Omgeo's system is operating normally and BSTP matches a trade but then experiences a technical problem preventing BSTP from sending settlement instructions to the BD or DTC. DTC might then receive messages approving settlement from the custodian for trades of which it is not aware, preventing DTC from processing the transaction. This is just one of many possible scenarios in which the complexity of an interoperable system might cause new categories of problems with reliability and stability, beyond those that might occur in the current system.

In seeking to understand the implications of BSTP's entry on reliability and stability, the cost and time required to build and test robust systems and the inherent difficulty the SEC staff would face in assessing and monitoring systemic risk when new technologies are rolled out should not be underestimated. The Commission's recent experience involving registered exchanges and BDs demonstrates the inherent challenges in creating robust, stable systems, particularly those developed by for-profit entities in a competitive environment.<sup>63</sup> Faced with

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<sup>62</sup> See, e.g., Perrow, C. (1999), *Normal Accidents: Living with High-Risk Technologies*, Princeton, NJ: Princeton University Press, pp. 3–5; Sheffi, Y. (2007), *The Resilient Enterprise: Overcoming Vulnerability for Competitive Advantage*, Cambridge, MA: MIT Press, p. 126 (“A very important vulnerability results from complexity. As systems become more complex, they become more difficult to design, build, and ensure for proper operation without hidden exposures.”).

<sup>63</sup> See “SEC Announces Charge Against Wedbush Securities and Two Officials for Market Access Violations,” Securities and Exchange Commission, No. 2014-115, June 6, 2014,



competitive pressures, developers may be incented to produce a new system quickly and at low cost. To some extent, regulatory requirements and the reputational harm of a systems failure provide some incentive for private developers to focus on system stability. But because system failures may impose significant costs on a range of market participants—costs not internalized by the private developer—there may be an economic incentive for private entities to underinvest in system stability and redundancy.

A thorough evaluation of the BSTP Application would incorporate careful consideration of the alternative ways in which BSTP's central matching service could connect with market participants, interact with Omgeo, and access DTC. In particular, such an evaluation would include an assessment of the implications of each proposal on system reliability and stability and the cost burden that would be placed on various market participants to ensure that the new system would not undermine the stability of the post-trade processing system.

## **V. Competition in Central Matching**

Distinct from issues raised by the BSTP Application that relate to the existing post-trade processing infrastructure outside central matching (such as Omgeo's ALERT and TradeSuite ID) are issues within central matching itself.<sup>64</sup> In particular, BSTP's proposed entry into the provision of central matching services raises issues relevant to the Exchange Act's mandate for "fair competition."<sup>65</sup> The form and consequences of competition also should be considered in

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<http://www.sec.gov/News/PressRelease/Detail/PressRelease/1370542011614#.VRyt0GdWFFp> , accessed on 4/1/15; "SEC Charges Knight Capital With Violations of Market Access Rule," Securities and Exchange Commission, No. 2013-222, October 16, 2013, <http://www.sec.gov/News/PressRelease/Detail/PressRelease/1370539879795#.VRyTHWdWFFp>, accessed on 4/1/15. "SEC Charges NASDAQ for Failures During Facebook IPO," Securities and Exchange Commission, No. 2013-95, May 29, 2013, <http://www.sec.gov/News/PressRelease/Detail/PressRelease/1365171575032#.VRyswGdWFFp>, accessed on 4/1/15; "SEC Charges New York Stock Exchange for Improper Distribution of Market Data," Securities and Exchange Commission, No. 2012-189, September 14, 2012, <http://www.sec.gov/News/PressRelease/Detail/PressRelease/1365171484740#.VRytkWdWFFp> accessed on 4/1/15.

<sup>64</sup> As stated above, central matching services are a clearing agency function, thus Omgeo's provision of these services is governed by its Exemptive Order. The Conditions of Exemption found in the Omgeo Exemptive Order relate solely to central matching. Omgeo Exemptive Order, IV.C.2. These conditions are broken into "Operational Conditions" and "Interoperability Conditions." Similar conditions are found in the BSTP Application, and the Notice of Filing. BSTP Application, pp. S-13–S-19; Notice of Filing, IV.B. (Note that Omgeo Exemptive Order, IV.C.2.b.(9) is not found in either the BSTP Application or the Notice of Filing.) As discussed above, the BSTP Application contains proposals for both central matching services and ETC services that would facilitate a sequential confirmation/affirmation process. The Conditions of Exemption do not apply to the ETC services, thus our focus here is on competitive issues related to BSTP's proposal to offer central matching services. As discussed below, BSTP's arguments in support of its entry also appear to focus on central matching. When the discussion relates to issues that also apply to ETC services it will be noted.

<sup>65</sup> Exchange Act, Section 17A.

light of the conditions found in Omgeo's existing Exemptive Order and the Commission's stated desire for "transparency, consistency, and interoperability."<sup>66</sup>

The benefits of marketplace competition are well documented.<sup>67</sup> Economics teaches us that in order to yield the benefits of competition, however, firms must compete in a manner that is "procompetitive." Procompetitive behavior, sometimes referred to as "competition on the merits" or "fair competition," is not exclusionary or predatory; that is, it is not behavior in which the goal of one or more firms is to exclude other firms from the market.<sup>68</sup> It is also behavior that is not collusive. These types of behavior could lead to negative outcomes such as inefficiently low production or inefficiently high prices and costs.<sup>69</sup> To obtain the benefits of competition in central matching services, competition must be fair.

The BSTP Application says little about this other than that BSTP's entry will "provide price competition to the market."<sup>70</sup> However, a careful analysis of price competition in a marketplace with multiple central matching services shows its complexity and raises a number of questions that the BSTP Application does not address. We discuss these in the following section. We then discuss BSTP's governance, which is also relevant to an analysis of competition in central matching services. Finally, we discuss some longer-run considerations related to how the marketplace for central matching services might evolve.

### **A. Interoperability and Interface Charges**

Key to competition in central matching services is interoperability. In particular, the conditions on interoperability found in the Omgeo Exemptive Order were imposed in order to allow for competition in central matching services.<sup>71</sup> The interoperability conditions describe

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<sup>66</sup> Omgeo Exemptive Order, IV.B.

<sup>67</sup> Stated most simply, a competitive market can create and sustain the efficient allocation of resources across producers and consumers in an economy. This is also known as the First Welfare Theorem of Economics. See, e.g., Varian, H. R. (2010), *Intermediate Microeconomics: A Modern Approach*, 8<sup>th</sup> ed., New York: W. W. Norton ("Varian"), pp. 597–598; 602–603. Competitive markets also incentivize firms to innovate by designing new products and improving existing products. See, e.g., Parkin, M. (2010), *Microeconomics*, 9<sup>th</sup> ed., Addison-Wesley ("Parkin"), p. 330. Finally, competition also serves as a disciplining tool, preventing firms from exercising their market power via charging high prices and ensuring that the prices charged by firms appropriately reflect the costs of production. See, e.g., Parkin, pp. 327, 330; Varian, pp. 445–446, 461.

<sup>68</sup> Carlton and Perloff, pp. 333–361; Kolasky, W. (2002), "What Is Competition?" Address before the Seminar on Convergence, U.S. Department of Justice.

<sup>69</sup> Carlton and Perloff, pp. 333–361.

<sup>70</sup> BSTP Application, p. S-5. The application also states that competition "increas[es] the potential for development of new and enhanced functionality." BSTP Application, p. J-10.

<sup>71</sup> These conditions are essentially replicated in the BSTP Application and the Notice of Filing as well as in the SS&C Application and SS&C Notice of Filing.

measures that Omgeo should take to develop linkages (an “interface”) between its matching service and other potential central matching services.<sup>72</sup> Specifically, they discuss the terms on which any potential entrant to central matching will engage with Omgeo and vice versa, including requirements surrounding pricing, infrastructure, the sharing of key resources, and the governance of these processes by the SEC.

Together with the single point of access condition,<sup>73</sup> interoperability implies a desire by the Commission for the end user to have a consistent and seamless experience in a marketplace with two or more central matching services.<sup>74</sup> Industry insiders have previously dubbed this a “virtual matching utility,” or VMU.<sup>75</sup> This means that a given end user can complete a central match with a counterparty regardless of whether both are connected to the same central matching service or each is connected to a different central matching service. In other words, the service that an IM client of BSTP gets should be the same whether its counterparties, the BD and custodian bank, are BSTP’s clients or Omgeo’s.

An important feature of this interoperating marketplace is that customers of one central matching service may benefit from services provided by another central matching service. Consider the case in which an IM is a customer of BSTP and BSTP performs a central match between that IM and a BD who is a customer of Omgeo. The Omgeo BD customer receives the benefit of the match but is not a direct customer of the central matching service that performed it (BSTP). Furthermore, this scenario involves messages being passed through the interface between BSTP and Omgeo.

How pricing should be established in such interoperating scenarios is an important and open question. There would be significant complexities not present in the current marketplace. These complexities should be resolved in a manner consistent with the Commission’s mandate.

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<sup>72</sup> Omgeo Exemptive Order, IV.C.2.b.

<sup>73</sup> Omgeo Exemptive Order, IV.C.2.b.(2); BSTP Application, p. S-15; Notice of Filing, IV.C.2.(2). This condition states that Omgeo shall develop interfaces with other central matching services so that “an end-user client of one Central Matching Service can communicate with all end-user clients of all Central Matching Services, regardless of which Central Matching Service completes trade matching prior to settlement.”

<sup>74</sup> For example, in a conference speech discussing the shortened settlement cycle initiative, Larry E. Bergmann of the SEC discusses how the Exemptive Order requires Omgeo to “link to other matching services so that no matter what matching service a broker-dealer and its institutional client use, they will be able to communicate trade and allocation data.” “Remarks by Larry E. Bergmann Before the ICAA STP/T+1 Conference,” September 25, 2002.

<sup>75</sup> A June 2002 presentation by Omgeo to the IBC STP Forum states, “A Virtual Matching Utility is the result of two (or more) Matching Utilities linking together, so that the client(s) of one matching utility can seamlessly interact with the client(s) of another Matching Utility.” “Omgeo Interoperability – Choosing One/Connecting to All,” Presentation by Lee Cutrone to the IBC STP Forum, June 2002, p. 2.

For example, in a marketplace with interoperating central matching services there are scenarios, as outlined above, in which a central matching service provides matching services both to its direct customers and to direct customers of another central matching service. Neither the current Omgeo Exemptive Order nor the BSTP Application explains how customers of one central matching service who receive benefits from another central matching service are to be charged.<sup>76</sup> Resolution of these fee structures is important to ensure that there is fair competition in an interoperating central matching system.

There are further complexities associated with interface charges. Per the Omgeo Exemptive Order, interface charges are “for the use of their Interface with respect to the sharing of Trade and Account Information.”<sup>77</sup> There are also Conditions of Exemption that govern the establishment of interface charges.<sup>78</sup>

To each of two interoperating central matching services, the interface charge is either a cost or a source of revenue. Thus, once established, interface charges would be expected to impact end-user pricing by the interoperating central matching services.<sup>79</sup> In setting interface charges, direct competitors would therefore be negotiating a price that affects end-user pricing.<sup>80</sup> The Omgeo Exemptive Order appears to consider this, as it states that Interface Charges shall not

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<sup>76</sup> The Omgeo Exemptive Order does contain a Condition of Exemption that relates to end-user pricing. Omgeo Exemptive Order, IV.C.2.b.(14). This is also replicated in the BSTP Application and Notice of Filing. BSTP Application, p. S-17; Notice of Filing, IV.C.2.(13). This condition specifies that pricing by a central matching service to its customers (implying an interpretation that a customer is an end user who is directly connected to the central matching service) must not differ depending on which central matching services their counterparties are connected to. It also states that the central matching service “shall not charge customers any additional amounts for forwarding to or receiving trade and account Information from Other Central Matching Services called for under applicable commercial rules.” There are no further specific specifications regarding end-user pricing. This condition appears to apply only to direct customers of a Central Matching Service (or an end user who is directly connected to the central matching service, such as via a single point of access) and does not provide guidance on billing or pricing to “indirect” customers. Interoperability implies the existence of such “indirect” customers, or customers who receive the benefit of a match but are not directly connected to the central matching service providing the match.

<sup>77</sup> Omgeo Exemptive Order, IV.C.2.b.(11).

<sup>78</sup> Omgeo Exemptive Order, IV.C.2.b.(11), IV.C.2.b.(12), and IV.C.2.b.(13).

<sup>79</sup> The Omgeo Exemptive Order expressly prohibits customers from being charged any additional amount for forwarding or receiving trade and account information. Omgeo Exemptive Order, IV.C.2.b.(14). However, because interface charges impact the costs and revenues faced by both central matching services they may be expected to impact end-user pricing generally.

<sup>80</sup> Notwithstanding the restrictions on what can and cannot be considered while determining interface fees (Omgeo Exemptive Order, IV.C.2.b.(13)), the entities setting the interface fees may be incentivized to use the fees as a means of jointly earning profits at the expense of end users. The potential anticompetitive harm associated with competitor collaborations has been noted by the FTC and DOJ. “Antitrust Guidelines for Collaborations among Competitors,” Federal Trade Commission and the U.S. Department of Justice, April 2000. This type of effect of direct competitors negotiating a price that affects end-user pricing has also been discussed in the joint venture literature. See, e.g., Shapiro, C. and R. Willig (1990), “On the Antitrust Treatment of Production Joint Ventures,” *Journal of Economic Perspectives*, Vol. 4, No. 3, pp. 113–130, at pp. 114–115.

be set at a level that “diminishes price or non-price competition.”<sup>81</sup> How the Commission administers this requirement will therefore be important.<sup>82</sup>

Similar concerns may arise if there are other prices or charges utilized by interoperating central matching services that are determined via negotiation between competitors.<sup>83</sup>

In summary, there are significant complexities associated with pricing in an interoperating central matching services marketplace. More careful analysis is needed to ensure that these complexities are resolved in a manner consistent with the Commission’s mandate.

## **B. Governance of BSTP**

The governance of Omgeo and the governance of BSTP are very different, which in turn implies a difference in each entity’s approach to competition and pricing. This difference should be considered when assessing the likely market outcomes that will arise with BSTP’s entry.

As discussed above, Omgeo is a wholly owned subsidiary of DTCC and is governed by a board of managers that is majority-controlled by industry representatives.<sup>84</sup> This structure acts to provide guidance on pricing (and other economic decisions such as the formulation of business strategy, budgets, business plans, risk controls, etc.) in the long-term best interest of the industry (Omgeo and its users).<sup>85</sup>

Bloomberg (a for-profit entity) has proposed that BSTP be organized as its wholly owned subsidiary.<sup>86</sup> It has further proposed that BSTP have a Board of Directors to oversee the business and an Advisory Board “consisting of industry members and users of the Matching Service.”<sup>87</sup> It claims that this structure will “ensure that the Registrant’s Matching Service operates in a manner that is consistent with the public interest and the protection of investors.”<sup>88</sup> The proposed Board of Directors comprises four members, three of whom are Bloomberg

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<sup>81</sup> Omgeo Exemptive Order, IV.C.2.b.(13)(C).

<sup>82</sup> Note that the Omgeo Exemptive Order states, “The Commission is reserving its jurisdiction to, in its sole discretion, review de novo the fee schedule resulting from negotiation or arbitration.” Omgeo Exemptive Order, fn. 47. This provision is not found in the BSTP Application. See BSTP Application, p. S-17.

<sup>83</sup> It is unclear whether other such charges between interoperating central matching services would be called interface charges, and thus subject to the relevant Conditions of Exemption.

<sup>84</sup> “Corporate Governance,” Omgeo, [http://www.omgeo.com/page/boardmembers\\_exp](http://www.omgeo.com/page/boardmembers_exp), accessed on 4/17/15; DTCC Acquires 100% of Omgeo.

<sup>85</sup> Milgrom, P. and J. Roberts (1992), *Economics, Organization, and Management*, Englewood Cliffs, NJ: Prentice Hall, p. 41.

<sup>86</sup> Notice of Filing, Section II.A.

<sup>87</sup> BSTP Application, p. S-8.

<sup>88</sup> BSTP Application, p. S-8.

employees.<sup>89</sup> The Advisory Board appears to be the primary conduit to “serve the interests of market participants.”<sup>90</sup> In contrast to the Omgeo governance structure, it is unclear how this proposed structure for BSTP will ensure that pricing decisions (and other economic decisions like investment and innovation) are undertaken in a way that benefits the long-term best interest of the industry.<sup>91</sup>

Also, the governance of further, future potential entrants like SS&C is also a relevant consideration. For example, should a third entrant, who wanted to enter as a for-profit entity, be allowed to enter with BSTP’s proposed governance structure? Would it change the Commission’s perspective on the governance structures of the two central matching services that were already in the marketplace?

In summary, the effect of the proposed governance structure of BSTP is important for assessing the likely market outcomes that will arise with BSTP’s entry.

### **C. Evolution of the Marketplace**

It is possible that due to the economic structure of central matching, including the cost structure, network structure, and the inherent complexities and risks associated with interoperability, the marketplace might not be able to sustain competition effectively between two (or more) central matching services in institutional trading of DTC-eligible securities. Ensuring fair competition is critical to allowing the best aspects of competition to benefit market participants. However, there are aspects of central matching services that may be best provided by a single provider. The provision of central matching services may involve scale economies, or high fixed costs and low marginal costs, and network effects. For example, there are significant costs associated with building connections to end users like BDs, custodians, and IMs. There may also be ongoing fixed costs relating to technological upgrading and maintenance, including support of industry standards in terms of communication protocols or message standard formats, research and development, and regulatory compliance.<sup>92</sup> However, once the infrastructure is in place, the variable, or marginal, costs associated with matching additional trades are minimal. Industry participants recognized these costs during the Solicitation of Comments for the Omgeo

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<sup>89</sup> BSTP Application, pp. S-9–S-11.

<sup>90</sup> BSTP Application, p. S-11.

<sup>91</sup> A for-profit entity would be expected to maximize the entity’s profits. See Varian, p. 345.

<sup>92</sup> See, e.g., the discussion of industry standards in the Omgeo Exemptive Order, IV.C.2.b.(5).

Exemptive Order.<sup>93</sup> There may also be important network effects in central matching, as suggested by the interoperability conditions in the Omgeo Exemptive Order and the industry concept of the virtual matching utility.<sup>94</sup> The single point of access condition<sup>95</sup> and the conditions establishing the need for seamless interoperability between rival central matching services<sup>96</sup> envision that the efficient market outcome is a single network that links all end users (IMs, BDs, and custodians). This allows for maximum flexibility for end users to have whichever counterparties they choose on a trade-by-trade basis.<sup>97</sup> If central matching services were not fully interoperable, then end users would have to join multiple networks or forego engaging in transactions where relevant counterparties were not connected to the same network they were.<sup>98</sup>

If interoperability does not work effectively, it may emerge that one competitor is favored over another. Ineffective interoperability could arise for technical reasons or because interoperability pricing (interface charges) do not appropriately reflect the network economics. The Omgeo Exemptive Order does state that interface charges consider “the average cost associated with the development of links to end-users and End-User Representatives,” and further states that “Interface Charges shall not be set at a level that unreasonably deters entry or otherwise diminishes price or non-price competition.”<sup>99</sup> Thus, the Exemptive Order mandates consideration of the cost of setting up the user network (the development of links) in determining the cost of access (interface). However, if the interface charges failed to balance the economics of the competing, interoperating, central matching services effectively, one of the providers could be favored. For example, allowing BSTP to free-ride on the network developed by Omgeo would disadvantage Omgeo.

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<sup>93</sup> Letter from SunGard Data System, Inc., to Jonathan G. Katz, “Re: Release No. 3443540 (File No. 60032); and Release No. 3443541 (File No. SRDTC0010),” February 9, 2001, pp. 4–5.

<sup>94</sup> “Omgeo Interoperability – Choosing One/Connecting to All,” Presentation by Lee Cutrone to the IBC STP Forum, June 2002, p. 2.

<sup>95</sup> Omgeo Exemptive Order, IV.C.2.b.(2).

<sup>96</sup> Omgeo Exemptive Order, IV.C.2.b.(1)–b.(19).

<sup>97</sup> It is increasingly common for institutions to conduct their securities trading through multiple accounts maintained at different BDs. See “Electronic Submission of Securities Transaction Information by Exchange Members, Brokers, and Dealers,” SEC Release No. 34-44494, June 29, 2001, <http://www.sec.gov/rules/final/34-44494.htm>, accessed on 3/11/15. Similarly, because custodians must have the ability to settle trades with all the brokers used by their clients (“Custody Services: Comptroller’s Handbook,” Comptroller of the Currency, January 2002, at pp. 37–38), they would also benefit more from a network that was integrated with a larger number of brokers.

<sup>98</sup> Interoperability, if feasible, may imply that some network fixed costs (such as the development of links to end users) may not need to be duplicated by an entrant.

<sup>99</sup> Omgeo Exemptive Order, IV.C.2.b.(13).

The outcome of competition may be that BSTP is the primary provider of central matching services. This market outcome suggests the importance of assessing the regulatory implications of having central matching services dominated by a non-utility that is governed as a subsidiary of a for-profit entity.

## **VI. BSTP's Entry and Efficiency**

Another issue that the BSTP Application inadequately addresses is efficiency. While BSTP suggests that its entry into the market for central matching services would improve efficiency, it does so by comparing its proposed central matching services to what it claims is an existing “manual” workflow. It does not discuss its proposed sequential services, nor does it compare its services to those currently provided by Omgeo. Finally, it does not discuss any effects of interoperability on efficiency. These are all relevant issues for assessing the BSTP Application.

One aspect of efficiency is the speed and accuracy of the process, insofar as prompt, accurate processing of allocations and generation of the affirmed confirm is a necessary precursor for prompt and accurate settlement. One metric used for assessing post-trade operational efficiency is the affirmation rate, or the percentage of trades that complete the matching/affirmation process during the 3-day settlement cycle. The more efficient the post-trade process, the sooner the affirmation or match typically occurs in the settlement cycle between counterparties. For this reason, affirmations have been used as a key metric to determine shortened settlement cycle readiness (i.e., T+1, T+2).<sup>100</sup> Two commonly used affirmation rates are the same day affirmation rate (SDA)<sup>101</sup> and the overall affirmation rate (the percentage of trades that are successfully matched and affirmed prior to the settlement date).<sup>102</sup>

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<sup>100</sup> “Preparing for T+2 Settlement,” Omgeo, November 2012, <https://www.omgeo.com/tplus2>, accessed on 4/1/15, p. 6.

<sup>101</sup> “Mitigating Operational Risk & Increasing Settlement Efficiency with Same Day Affirmation (SDA),” Omgeo, October 2010, <https://www.omgeo.com/sda>, accessed on 4/1/15, p. 17; “Preparing for T+2 Settlement,” Omgeo, November 2012, <https://www.omgeo.com/tplus2>, accessed on 4/1/15. The SDA figures in the Mitigation Operational Risk report are global figures and illustrate that SDA rates are a measure of efficiency. Specific U.S. SDA rates are reported below in this section.

<sup>102</sup> “Mitigating Operational Risk & Increasing Settlement Efficiency with Same Day Affirmation (SDA),” Omgeo, October 2010, <https://www.omgeo.com/sda>, accessed on 4/1/15, p. 28. The overall affirmation rates in the Mitigation Operational Risk report are global figures and illustrate that overall affirmation rates are a measure of efficiency. Specific U.S. overall affirmation rates are reported below in this section.



The economic concept of efficiency also includes the efficient use of industry resources.<sup>103</sup> So, for example, if a new process requires significant expenditures of capital and human resources by market participants to support new systems but the new systems do not contribute to improving the speed, accuracy, or stability of the process, this would not be an improvement in efficiency.

As described above, the BSTP Application describes two proposed workflows.<sup>104</sup> In one (“Matching Workflow No. 1”), BSTP would offer a central matching service. In the other (“Matching Workflow No. 2”), it would act as a hub to transmit information among the IM, BD, and custodian in a process where the custodian performs the comparison that results in an affirmed confirm.<sup>105</sup> These two workflows mirror two currently existing workflows provided by Omgeo. The structure of BSTP’s proposed central matching workflow resembles that offered by Omgeo through Omgeo’s central matching services. The structure of BSTP’s other proposed workflow mimics the functionality of Omgeo’s sequential affirmation confirmation process.

The BSTP Application hints that BSTP’s proposed services would enhance efficiency by comparing the proposed workflows to a “Manual” processing workflow (described in Figures J-1 and J-2).<sup>106</sup> For example, it states that the proposed matching process “eliminates multiple steps in the Manual Workflow.”<sup>107</sup> However, for various reasons described below, it is not clear whether the proposed workflows would in fact enhance or degrade the overall efficiency of the post-trade processing process.

The description of the “Manual Workflow” in the BSTP Application provides a sparse and incomplete (and inaccurate) picture of current industry practices. The BSTP Application also does not provide enough detail about the proposed workflow processes to permit a meaningful comparison against what it claims are the existing alternatives.<sup>108</sup> Essentially, the description of the “Manual Workflow” in the BSTP Application appears to be a generic description of a sequential confirmation/affirmation process but does not specify the extent to which the process may be automated or may involve steps currently performed by Omgeo. As

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<sup>103</sup> Varian, pp. 618–620, 628.

<sup>104</sup> BSTP Application, pp. J-4–J-8.

<sup>105</sup> BSTP Application, pp. J-4–J-8.

<sup>106</sup> BSTP Application, pp. J-1–J-8.

<sup>107</sup> BSTP Application, p. J-5.

<sup>108</sup> BSTP Application, p. J-2.

discussed above, it should be noted that the process erroneously ascribes the creation and dissemination of the Control ID to DTC, a step that, in fact, is performed by Omgeo.

Matching Workflow No. 2, described in the BSTP Application as a matching scenario, is in fact a sequential workflow and raises efficiency concerns. The described workflow requires the custodian to perform a comparison of the firm's trade data against the customer's allocation and send back a "matched confirmation" to BSTP—in industry parlance, for the custodian to perform a "local match."<sup>109</sup> The application does not specify whether BSTP would require or expect the custodians to adopt new automated systems provided by BSTP to perform this comparison or whether it would be up to each custodian to determine how the comparison would be done. In the former case, the cost burden such a requirement would put on custodians should be assessed and feedback solicited from them about this issue. In the latter case, it is not clear how the proposed process differs from the status quo in terms of the degree to which the process requires human intervention.

Based on Omgeo's experience, there is ample evidence that a central matching of institutional DVP/RVP transactions (for non-Prime Broker trades) does, in fact, result in greater efficiency than a sequential process that requires the IM or the IM's agent to affirm (perform a local match). For example, data from Omgeo indicate a recent Same Day Affirmation rate of 87 percent for trades processed by Omgeo's central matching services, as opposed to 34 percent for those using the sequential affirmation process for institutional DVP/RVP transactions.<sup>110</sup> Similarly, the rate of affirmations completed by T+1 (noon) is higher for trades that are centrally matched, with an overall affirmation rate of 93 percent for trades processed by Omgeo's central matching services, compared with an overall affirmation rate of 71 percent for sequentially processed trades.<sup>111</sup> Based on these data, it is reasonable to conclude that a movement in the industry away from sequential processing and toward central matching for institutional DVP/RVP transactions, assuming that it is implemented in a way that does not compromise the efficiencies of the existing infrastructure, is likely to lead to an improvement in Same Day Affirmation rates and a concomitant reduction in the number of trades subject to delayed settlement.

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<sup>109</sup> BSTP Application, pp. J-7–J-8.

<sup>110</sup> "Shortened Settlement Cycle: Industry Affirmation Data Analysis," Omgeo, January 2015 ("Omgeo Industry Affirmation Data Analysis"), p. 6.

<sup>111</sup> Omgeo Industry Affirmation Data Analysis, p. 6.

While the BSTP Application suggests that BSTP's entry will expand the use of central matching, the information provided is insufficient to support this.<sup>112</sup> BSTP proposes two workflows: one implementing central matching and one sequential model.<sup>113</sup> It is not clear from the BSTP Application and may be difficult to predict how many and what type of investors are likely to use BSTP's central matching service or BSTP's sequential workflow, or how many and what types would remain with Omgeo. To the extent that BSTP's sequential process attracts users that are currently using Omgeo's central matching services, that would represent a movement away from central matching, not toward central matching. To the extent that BSTP's central matching service attracts users that are currently already using Omgeo's central matching services, that would merely bifurcate central matching across two providers, not increase the usage of central matching. Only to the extent that BSTP's central matching service attracts customers who are currently using a sequential model would the movement be in the direction of increased central matching. If the net effect of BSTP's entry into this space represents a net move toward less central matching and more sequential processing for institutional DVP/RVP transactions, the evidence from Omgeo's experience suggests such a development would represent a deterioration in efficiency.

The BSTP Application's discussion of the benefits of its central matching service also does not account for any effects of interoperability on the efficiency of post-trade processing. The BSTP Application does not provide any detail on how it will interface with Omgeo's central matching services system beyond replicating the interoperability conditions found in the Omgeo Exemptive Order. If BSTP intends to send settlement instructions directly to DTC, this will create a bifurcation in settlement instruction messages across two central matching services. This bifurcation could affect the speed and accuracy of the confirmation/affirmation of settlement instructions and, as a result, have a downstream effect on the settlement process as a whole, especially for trades that use the interoperable interface.

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<sup>112</sup> The BSTP Application states, "Although central matching was still relatively new at the time of the ITPC's 2002 paper, the usefulness of the central matching process has been observed by the market over the last decade through the service offerings of the only currently available central matching service. With only one option available, however, the market's ability to assess the value of central matching has not been fully realized." BSTP Application, p. S-5.

<sup>113</sup> BSTP Application, pp. J-4–J-8.

## **VII. Issues Associated with Other Commission Rules**

In evaluating the possible approaches to implementing access, interoperability, and pricing, it is important to consider not only the direct risks, benefits, and costs of various proposals but also implications for the risks, benefits, and costs associated with other Commission rules that might be collaterally affected. To the extent that certain decisions (regarding, for example, how BSTP would access DTC) are likely to result in substantially higher compliance costs, undermine the ability of market participants to comply with rules, or lead to increased operational and business continuity risks, these factors should be considered when determining the conditions under which BSTP should be permitted to provide central matching services as an exempt clearing agency.

### **A. Implications for Reg. SCI**

A move to an interoperable system with multiple providers offering central matching is likely to create new challenges for market participants in complying with their obligations under Reg. SCI.<sup>114</sup> Different approaches to how BSTP and Omgeo would interact following BSTP's entry into central matching services may have different implications for the key goals of Reg. SCI. These goals include systems capacity, integrity, resilience, availability, security, and robustness of business continuity and disaster recovery plans.<sup>115</sup>

As discussed above, the BSTP Application presumes that trades matched by BSTP would be sent directly to DTC for settlement after obtaining a Control ID from DTC, although Control IDs are currently provided solely by Omgeo's TradeSuite ID.<sup>116</sup> The BSTP Application does not discuss the extent to which developing a brand new system for creating and disseminating control numbers introduces risks to system resilience and business continuity, the potential market implications of a system failure, or the extent to which such a system would require testing under Reg. SCI.

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<sup>114</sup> Reg. SCI updates, formalizes, and expands the SEC's Automation Review Policy (ARP) Inspection Program and supersedes and replaces it with respect to SCI entities (as an exempt clearing agency, Omgeo is classified as an SCI entity along with registered clearing agencies, alternative trading systems, and plan processors). ARP and Reg. SCI focus on technological and security standards. "Regulation Systems Compliance and Integrity," Securities and Exchange Commission, November 19, 2014 ("Reg. SCI Release"), Sections I, II.A, II.B.

<sup>115</sup> Reg. SCI attempts to bolster the operational integrity of market participants' automated systems. It builds on the Commission's long-standing ARP, responding to recent systems-related concerns in the securities markets including outages and cybersecurity issues. Reg. SCI Release, Section I.

<sup>116</sup> BSTP Application, pp. J-2, J-5.

The BSTP Application also specifies a workflow that envisions a sequential process in which the custodian compares trade details and BSTP acts as an information hub between the custodian and the BD.<sup>117</sup> It is not clear from its application whether BSTP envisions this workflow operating in a situation in which it does not have a direct connection with both the custodian and the BD. Because this is not a central matching workflow, it seems that the interoperability conditions in the Omgeo Exemptive Order would not apply. Would custodians be forced to build out new systems or adopt Bloomberg's technology to process messages from BSTP? Would Omgeo be expected to process BSTP messages and translate them into a format compatible with the custodian's system? Similar unanswered questions arise in a situation where the IM is a customer of BSTP and the BD is a customer of Omgeo. How such questions are resolved may have important implications for systemic stability and the other goals of Reg. SCI.

Stated more generally, the BSTP Application does not consider the likelihood that the implementation of interoperability might introduce technical complications resulting in a less stable, less resilient system and thus undermine the purposes of Reg. SCI. Consistent with the purposes and requirements of Reg. SCI, the Commission would presumably require market participants including Omgeo, BSTP, and their customers to perform sufficient testing of any new interoperable system to ensure that moving to a new system would not significantly compromise the integrity of the system as a whole, including the robustness of business continuity and disaster recovery plans. The possibility that different proposals for implementing the BSTP matching service may have substantially different implications for system complexity and therefore different implications for performing Reg. SCI testing should be considered.

For example, as discussed above, the BSTP matching service could be implemented through a Single Access model, where BSTP relies on the existing infrastructure provided by TradeSuite ID, or through a Dual Access model, where BSTP seeks to replicate the functionality of this infrastructure on its own. DTCC argues that the risks and technical complexities would be far greater under the latter approach.<sup>118</sup> Thus, the choice of how access is to be achieved is likely to have direct impact on the complexity of the system developed, the time required for BSTP, Omgeo, and other market participants to develop reliable interfaces, the issues related to

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<sup>117</sup> BSTP Application, pp. J-7–J-8.

<sup>118</sup> Letter from Larry E. Thompson to Brent J. Fields, "Re: Bloomberg STP LLC; Notice of Filing of Application for Exemption from Registration as a Clearing Agency (File Number 600-33)," April 6, 2015.

performing Reg. SCI testing, and, in the end, the stability of the system. Further input from market participants on these issues may be useful, particularly if there is disagreement between Omgeo and BSTP on the best way to structure access.

## **B. Implications for Reg. SHO**

The central matching services at issue in the BSTP Application involve the processing of institutional DVP/RVP trades in DTC-eligible securities in preparation for settlement.<sup>119</sup> The various systems involved in post-trade processing are designed to complete all the necessary steps required to send settlement instructions to DTC. Any technical problem that causes delays and inaccuracies in that process may cause a delay in the settlement of a trade. Creation of an affirmed confirm is a necessary step in the process that must occur prior to settlement. If the delays in completing the confirmation/affirmation step of the process are too long, the settlement cannot be completed on time.<sup>120</sup>

Rule 204 of Reg. SHO applies to BD participants of a registered clearing agency. This rule was designed to reduce fails to deliver to clearing agencies in their capacity as central clearing agents, such as fails to deliver in NSCC's CNS system.<sup>121</sup> Among other things, Rule 204 requires participants who have a fail to deliver position with NSCC to close out the fail to deliver by the opening of trade on the following business day by borrowing or by buying securities in like kind and quantity, subject to various other provisions.<sup>122</sup>

Delivery for institutional trades involves a transfer of shares between two DTC participants, not a delivery to NSCC or any other registered clearing agency.<sup>123</sup> BDs extend DVP/RVP privileges to institutional clients during these transactions.<sup>124</sup> As we understand it, a settlement delay resulting from inefficiencies in post-trade processing for DVP/RVP institutional trades would not represent a fail to deliver to a registered clearing agency and would not in itself trigger the closeout requirement of Rule 204. However, BDs who are participants of NSCC may

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<sup>119</sup> DTCC Following a Trade, p. 3; "Omgeo TradeSuite ID Operating Procedures Version 7.1," Omgeo, February 10, 2014, [www.omgeo.com/document/DV3390VLIQ9](http://www.omgeo.com/document/DV3390VLIQ9), accessed on 4/2/15 ("TradeSuite ID Operating Procedures"), p. 9.

<sup>120</sup> Mitigating Operational Risk & Increasing Settlement Efficiency with Same Day Affirmation (SDA)," Omgeo, October 2010, <https://www.omgeo.com/sda>, accessed on 4/1/15, pp. 2, 28.

<sup>121</sup> "Amendments to Regulation SHO," Securities and Exchange Commission, Release No. 34-6195, February 26, 2010, Section II.C.

<sup>122</sup> "Amendments to Regulation SHO," Securities and Exchange Commission, Release No. 34-58775, October 14, 2008, Section 2.B.

<sup>123</sup> DTCC Following a Trade, pp. 3-4.

<sup>124</sup> SEC Matching Release, Section I, fn. 3.

rely on the efficiency of the institutional DVP/RVP settlement process to ensure that they receive shares in time to make them available for delivery in settlement of their broker-to-broker trades, which are settled through NSCC.<sup>125</sup>

To illustrate, suppose that an institutional investor who holds shares through a custodian bank sells shares to a BD in a block transaction, where the BD is the counterparty to the trade and acts in a principal capacity, and the BD on the same day sells the shares to the market in a series of transactions executed on a registered exchange. Assuming that the BD is also a clearing broker (NSCC participant), the BD executing these transactions would then be involved in two separate settlement processes. The institutional side of the trade would clear DVP, with a provider such as Omgeo providing the post-trade processing. The exchange executions are broker-to-broker trades that clear through NSCC's CNS system.

If the DVP settlement occurs on time, shares will be transferred from the institution's custodian bank to the BD's DTC account, and the clearing BD will have the shares available to deliver to NSCC. However, should a delay in the affirmation or matching process cause the DVP trade not to settle on time, the shares will not transfer to the BD's DTC account on time, and the BD may have insufficient shares to meet its CNS obligation. If the BD relied on the on-time settlement of the DVP trade and could not obtain shares elsewhere, it would have a fail to deliver at NSCC. Under Rule 204, this would trigger an obligation for the clearing broker to borrow shares or buy shares to close out the fail to deliver. Thus, if the introduction of a new entrant into the matching process and the resulting complexities of interoperability cause additional settlement failures for DVP trades, it is likely to create challenges for clearing brokers in complying with Rule 204.

Through recent enforcement actions, the SEC and FINRA have sent the industry a clear message that regulators will pursue apparent violations of Rule 204, even if those violations arise for technical, operational reasons unrelated to any concerns of market manipulation or if they appear to arise solely from weaknesses in the BD's policies and procedures.<sup>126</sup> Feedback from the clearing broker community may be useful to evaluate the extent to which clearing firms

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<sup>125</sup> DTCC Following a Trade, p. 2.

<sup>126</sup> "FINRA Fines Merrill Lynch a Total of \$6 Million for Reg SHO Violations and Supervisory Failures," FINRA, October 27, 2014, <http://www.finra.org/newsroom/2014/finra-fines-merrill-lynch-total-6-million-reg-sho-violations-and-supervisory-failures>, accessed on 4/2/15; "SEC Announces Charges Against Four Former Officials at Clearing Firm Penson Financial Services for Regulation SHO Violations," Securities and Exchange Commission, No. 2014-101, May 19, 2014, <http://www.sec.gov/News/PressRelease/Detail/PressRelease/1370541860014#.VRyivnF98E>, accessed on 4/1/15.

perceive this might be a problem and the additional issues clearing brokers might incur to ensure adequate compliance with Rule 204.

### **VIII. Summary**

The BSTP Application and Notice of Filing leave unaddressed and are silent on a number of key issues related to the potential entry of BSTP as a central matching service and ETC service. Some of these issues are of primary importance as the Commission evaluates the benefits, risks, and costs of BSTP's proposal and seeks to guide BSTP's entry into the market in a way that best promotes the public good and the Commission's goals of promoting safety and soundness in the nation's clearing and settlement infrastructure. These issues relate to the extent to which BSTP will rely on existing infrastructure, systemic stability, competition, pricing, efficiency, and implications for other Commission rules.

The BSTP Application presents an incomplete picture of how post-trade processing works and how BSTP's proposed services would function in an interoperating marketplace. In particular, it fails to recognize the regulatory distinction between central matching performed by a central matching service and local matching facilitated by an ETC service and ignores the distinction between matching and other components of post-trade processing (such as message enrichment, settlement staging, control, and DTC access). The BSTP Application fails to address how services with respect to these other components would be accomplished for trades matched by BSTP or other new matching services who are permitted to enter the market, or the extent to which BSTP would utilize existing services provided by Omgeo (for example, ALERT for message enrichment and TradeSuite ID for settlement staging, control, and DTC access). However, the BSTP Response appears to make clear that BSTP is contemplating minimal reliance on Omgeo for other components of post-trade processing.



The entire post-trade processing system and the extent to which market participants currently rely on Omgeo for critical components of post-trade processing other than central matching and ETC services are relevant for evaluating the BSTP Application.

Additional issues bearing on interoperability, the question of Single Access versus Dual Access, and the extent to which the BSTP Application (which, per the BSTP Response, appears to be proposing Dual Access) raises concerns about the economics, efficiency, and stability of post-trade processing are also important. In particular:

- Further information could be solicited, and economic analysis conducted, to evaluate and compare the benefits, risks, and costs of a Dual Access structure with those of a Single Access model. If the Commission contemplates granting BSTP an exemption under a Dual Access model, it may be useful to seek additional information from market participants including custodians, BDs, DTC, and technology vendors regarding the issues involved with building out new systems or modifying existing systems, including any delays, to accommodate a bifurcated system that can receive and process messages from multiple sources.
- The implications of interoperability and Dual Access, which potentially introduces multiple points of failure, should be assessed, including the impact on system reliability and stability and the cost burden that would be placed on various market participants to ensure that a Dual Access system would not undermine the efficiency or the safety and soundness of the post-trade processing system.
- The possibility that other parties may wish to introduce central matching services in the future, as SS&C has recently proposed, should be considered. Even though the Dual Access model may be technically feasible to implement, there may be further complexities that would arise if a third, fourth, or fifth central matching service were to enter, each seeking to provide its own infrastructure for distributing settlement instructions and accessing DTC and needing to interoperate at the matching level.
- Gathering and evaluating further information may be helpful for determining whether a Dual Access model may be economically inefficient or infeasible. In particular, the question of whether a Dual Access approach would extend competition to areas outside

of central matching that may more appropriately be provided by a single provider warrants further economic analysis.

- The Notice of Filing does not make clear whether the interoperability conditions specified in the Omgeo Exemptive Order, including the pricing conditions relating to customers and to interface charges, are limited to interoperability between Omgeo and other central matching services with respect to the technology required to perform the central match, or whether they also apply with respect to accessing the other ancillary services that Omgeo provides that are not part of central matching, such as Omgeo ALERT, TradeSuite ID, and the Confirm Archive service. Given the widespread use of these vital services by market participants, it is important to the safety and soundness of the nation's clearance and settlement infrastructure that Omgeo be able to continue to provide and charge for these services.

There are a number of issues related to competition in central matching services that the BSTP Application does not address, and which may warrant further clarification. When considering exempt clearing status for Omgeo, the Commission received comments from the Department of Justice and incorporated its concerns in granting Omgeo's Exemptive Order.<sup>127</sup>

In particular:

- It is an open question how pricing in interoperating scenarios should be established. There would be significant complexities that are not present in the current marketplace, which contains only Omgeo. It is important to ensure that these complexities are resolved in a manner consistent with the Commission's mandate (which includes a mandate for fair competition), and are considered in light of the Omgeo Exemptive Order.
- Whether BSTP's proposed governance structure will lead BSTP (a proposed subsidiary of a for-profit enterprise) to operate and price in such a way that serves the long-term best interests of the industry is a key question. Questions regarding the governance of further, future potential entrants, like SS&C, should also be anticipated.

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<sup>127</sup> Omgeo Exemptive Order, fn. 40.

- It is not clear whether the marketplace can effectively sustain competition between two central matching services in institutional trading of DTC-eligible securities. The outcome of competition in central matching services may be that BSTP ultimately becomes the primary provider: the regulatory implications of having central matching services dominated by a for-profit entity should be considered.

The effects of BSTP's entry on the efficiency of post-trade processing should also be considered. It is unclear the extent to which the introduction of BSTP may induce market participants currently using Omgeo's central matching services to migrate to a sequential model and the extent to which such migration would lead to increased systemic risk and reduced efficiency manifested in the form of more delayed confirmations and more delayed settlements. It may be important to investigate further the extent to which interoperability creates complexities and introduces additional points of failure in the system, and the extent to which this may have a negative impact on efficiency.

It may also be helpful to seek comment from market participants regarding issues associated with other Commission rules that might be collaterally affected through BSTP's potential entry (for example, Reg. SCI and Reg. SHO). To the extent that certain decisions (regarding, for example, how BSTP would access DTC) are likely to result in substantially higher compliance costs, undermine the ability of market participants to comply with rules, or lead to increased operational and business continuity risks, these factors should be considered in establishing the conditions under which BSTP and any other entity offering matching services should be permitted to provide central matching services as an exempt clearing agency.

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