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Time is Risk: Shortening the U.S. Trade Settlement Cycle

John Abel

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Time is Risk: Shortening the U.S. Trade Settlement Cycle

John Abel – Executive Director, Settlement and Asset Servicing Strategy, Product Management Group, DTCC

If all goes according to plan, on September 5, 2017, the U.S. financial services industry will achieve "T+2" – that is, reduce the securities settlement cycle from the current "trade date plus three days" to "trade date plus two days" – a huge accomplishment expected to yield important benefits almost immediately after implementation.

Not only will the move to T+2 reduce operational, systemic, and counterparty risk, limit the pro-cyclicality that can happen during times of volatility, lower liquidity needs, and enable capital to be freed up faster for reinvestment, it will also align the U.S. with other T+2 settlement markets across the globe.

The enormous, multi-year undertaking to shorten the U.S. settlement cycle was not driven by regulatory mandate but rather was led and coordinated by market participants. This initiative demonstrates the industry's ongoing commitment to continual improvements in the operation of our capital markets.

SETTLEMENT CYCLE RISK

Investors often cite the axiom "time is money" to convey the concept of opportunity cost. For those in the business of post-trade processing – especially those of us at The Depository Trust & Clearing Corporation (DTCC), which processes trillions of dollars of securities transactions for the U.S. financial industry each trading day – time is risk.

In other words, the longer it takes after a trade is executed to exchange funds for securities – that is, to settle a trade between counterparties – the greater the risk that securities firms and investors can be hit by losses in the intervening period and become unable to finalize and pay for their transactions.

To manage the risks related to unsettled trades, DTCC imposes a number of risk mitigants, not the least of which is the collection of margin or clearing fund. The amount of margin or clearing fund required from each clearing member of DTCC is, in part, a measure of that member's portfolio of unsettled trades. The greater the settlement cycle of those unsettled trades, the more trades are contained in the portfolio, which in turn results in a higher amount of margin required from that member.

Therefore, in the realm of post-trade settlement, not only can we say, "time is risk" but also "risk is money."

MITIGATING RISK

Over the decades, markets have experienced numerous periods of stress and volatility, and market turmoil will inevitably occur in the future. In some cases, share prices can plummet in a matter of seconds and trading volumes can soar.

It is this history, and inevitability, of market turbulence that spurred market participants in the U.S. several years ago to begin exploring ways to mitigate counterparty risk. The logical solution, market participants agreed, was to shorten the current T+3 settlement cycle, and thus narrow the window for post-trade processing.

However, turning this seemingly simple proposal into operational reality has demanded several years of deliberate and synchronized effort by thousands of parties – broker-dealers, banks, financial services firms, service providers, industry associations, exchanges, DTCC, and regulators.

The march toward T+2 began in earnest two years ago, and during that time the industry has made steady progress. DTCC, in close collaboration with industry organizations and trade associations such as the Securities Industry and Financial Markets Association (SIFMA), representing the sell-side, and the Investment Company Institute (ICI), for the buy-side, has assembled a number of industry working groups to drive the project forward.

Along the way these groups have kept regulators well informed. Because a shorter settlement cycle will improve market efficiency and safety and enhance protection for investors, a number of regulators, including the U.S Securities and Exchange Commission (SEC), have endorsed the change.

STARTING AT T+1

Many people are surprised to learn that in the 1920s, financial transactions in the U.S. were cleared and settled in just one day, even though the processes were completely manual. But trades back then were relatively simple, and volume was comparatively low.

Fast-forward to the early 1960s, when trading volumes and the complexity of the instruments grew exponentially: so much physical paper was exchanging hands that the SEC was forced to close the exchanges every Wednesday and increase the time permitted between trade execution and settlement date. Eventually the markets moved to a T+5 cycle.

T+5, or "trade date plus five days," meant a trade executed on Monday (trade date) would not be finalized until the following Monday. On that date, payment would be exchanged and ownership of the asset transferred. For the buyer of a security, payment would be received by the investor's brokerage firm no later than five business days after the trade was executed; for the seller, the securities certificate would be delivered to the brokerage firm no later than five business days after the transaction.

This extended settlement cycle was needed because transactions processing hadn't changed much since the 1920s: investors would not pay until they had received physical delivery of their certificates. In fact, before electronic record-keeping, virtually all securities transactions were conducted on paper and Wall Street employed hundreds of messengers who raced through the streets every afternoon after market closing, delivering certificates to brokers who bought stocks and bonds and returning with checks to pay for them.

This paperwork crunch spurred the industry to begin dematerializing securities – that is, replacing physical certificates with book-entry securities. Dematerialization relieved pressure on the post-trade system but did not erase the risks inherent in the multi-day settlement cycle.

PROGRESS: FROM T+5 TO T+3

On Monday, October 19, 1987 – known now as "Black Monday" – stock markets around the world crashed. In a cascading domino effect, global markets lost an unprecedented amount of value in a very short time. In the U.S., this volatility resulted in the largest one-day percentage decline in the Dow Jones Industrial Average (DJIA).

In the months following the crash, regulators in the U.S. researched possible root causes and worked to overhaul trade-clearing protocols, establish new rules, and reduce credit, market, and liquidity risk. Their consensus solution: to shorten the trade lifecycle and lower the window of time for settlement.

In 1995, the SEC adopted Rule 15c6-1 under the Securities Exchange Act of 1934, which resulted in moving from T+5 to T+3 settlement for a number of asset classes, lessening the inventory of unsettled trades at any one time and strengthening the U.S. financial markets to better withstand unpredictable times of stress.

Today, securities in the U.S. clear and settle over different periods of time through different clearinghouses and depositories that are determined by the category of security, but the majority of U.S. exchange-listed securities are cleared and settled in three business days. This customary three-day settlement date applies to most security transactions, including stocks and corporate and municipal bonds. Government securities and stock options settle on the next business day following the trade, and trades in some asset classes, like commercial paper (CP), settle on the same day.

THE T+2 PROPOSAL

After the unprecedented market events of the 2007-2008 global financial crisis, many new regulations were enacted with the intent of restoring stability and confidence and mitigating systemic risk. During this time, Europe, as part of Target2 for Securities, proposed harmonizing the European settlement cycles at T+2.

While the new regulations did a lot to reduce risk across the financial services industry, none of them addressed shortening the settlement cycle. As a result, the industry launched its own effort to explore the feasibility of such a change. In 2012, DTCC commissioned the Boston Consulting Group (BCG) to conduct an independent study to analyze the costs, benefits, opportunities, and challenges of moving to T+1 or T+2 by streamlining processes in the U.S. market.

BCG presented the following cost-benefit analysis and conclusions in October 2012:

- The initial cost of moving from T+3 to a T+2 settlement cycle in the U.S. would be an estimated U.S.$550 mln.
- Shortening the cycle to T+2 would yield recurrent annual savings of approximately U.S.$195 mln, including a reduction in the clearing fund requirements of National Securities Clearing Corporation (NSCC) and participant capital funding costs by an estimated U.S.$25 mln – meaning the initial investment would be recovered in only 2 ½ to 3 ½ years.
- The industry cost of getting to T+1 would be approximately U.S.$1.8 bln.
- Annual industry operational cost savings for T+1 would be between U.S.$175 mln and U.S.$370 mln, depending on the adoption of defined enhancements, and T+1 would reduce the clearing fund requirements of NSCC and participant capital funding costs by an estimated U.S.$35 mln.

THREE OPTIONS

Once BCG's cost-benefit analysis was complete, the industry began the task of deciding whether to move to T+1 or T+2 or remain at T+3. Many industry participants had strong opinions on each of the three options, but consensus was essential for a decision that would have such wide-ranging impacts on the financial system.

After much debate, the industry agreed that a move to T+2 was feasible in a reasonable amount of time and would produce significant benefits. But the hardest work lay ahead: designing and carrying out an implementation plan.

In collaboration with market participants, DTCC in late 2014 formed an Industry Steering Committee to provide overall direction and guidance to the T+2 project. The committee comprises representatives from many of the major trade associations and each of the impacted market segments and is co-chaired by representatives from SIFMA and ICI. The Steering Committee in turn created a T+2 Industry Working Group responsible for evaluating the changes that needed to occur to support the move to T+2.

DEFINING THE REQUIREMENTS

The Steering Committee quickly moved into action, publishing in early 2015 a requirements document that outlined the industry-level changes required to support the move to T+2. The committee also identified the rules that would need to be modified.

In a letter to SEC Chair Mary Jo White, the Steering Committee delineated these changes and formally requested SEC support for the T+2 project. Chair White responded in the fall of 2015, indicating her support for T+2, asking other impacted regulators and self-regulated organizations (SROs) to develop plans to update their own rule sets, and calling on the committee to develop a detailed implementation plan.

The Steering Committee released its plan in December. Committee members have used the document, "T+2 Industry Implementation Playbook," to help guide them through their development process.

PLANNING FOR TESTING AND IMPLEMENTATION

With the roadmap in place, the industry turned its attention to testing and implementation. The project's implementation timeline includes a robust and rigorous industry-wide testing plan in 2017 to ensure firms have the adequate resources in place to mitigate operational and implementation risk.

An industry group was convened to architect how testing would be conducted and to start developing detailed test plans. The testing group focused its attention on industry infrastructures: the test design involves the Bats and NASDAQ equity exchanges, the Options Clearing Corporation (OCC) and DTCC's Omgeo, NSCC, and Depository Trust Company (DTC) subsidiaries.

To support the testing effort, DTCC will establish a new test environment designed to allow members to test T+2 and T+3 functionality at the same time. Testing via both DTCC environments is scheduled to begin in early 2017.

DTCC, with the help of the Industry T+2 Testing Group, also published two documents to help members prepare for testing. The first, issued in March 2016, gives a high-level overview of how testing will be conducted while the second document, released in July, provides more detail on the testing facilities, including instructions for accessing the testing systems and suggested testing scenarios.

As testing proceeds and the target go-live date approaches, Steering Committee members will take on the added role of industry "Command Center," monitoring Industry readiness and coordinating implementation tasks. Ultimately, the Steering Committee will be instrumental in helping decide if the industry is ready to move to T+2 in September 2017.

CRITICAL REGULATORY CHANGES

In 1995, firms succeeded in moving from T+5 to T+3 by compressing the post-trade processing timeframe; this achievement required modest improvements in automation and technology. To get to T+2, however, will impact the entire trade processing workflow, and require changes to dependent processes and regulations.

Both buy-side and sell-side firms will have to adapt to make T+2 work. Some firms have proven to be ready and flexible, with a business model that can adjust well to an accelerated transaction processing timetable; others, especially those that still rely on manual processes, have been challenged to accommodate this shorter settlement cycle. And while some technology challenges remain to be addressed, the next wave of changes required to migrate to T+2 involve processes, behavior (business and client), and especially regulations.

The Municipal Securities Rulemaking Board (MSRB), an industry SRO overseeing broker-dealers that buy, sell, and underwrite municipal securities, was the first regulatory body to publish – in December 2015 – updated rule changes to facilitate shortening the U.S. settlement cycle to two days. The Financial Industry Regulatory Authority (FINRA) was the second, releasing its T+2 rule changes in March 2016. FINRA is an independent, not-for-profit organization authorized by the U.S. Congress to protect U.S. investors.

NASDAQ has also issued T+2 rule changes for its members, and just recently, in late September 2016, the SEC also took action to propose a rule change to facilitate the move to a two-date settlement cycle. For those who were still "waiting to see" what would happen next, the proposed rule change from the SEC provides the regulatory certainty necessary to help the financial services industry achieve its goal of moving to a two-day settlement cycle by September 2017.

HARMONIZING GLOBAL CYCLES

In our increasingly borderless and integrated global markets, systems need to be constructed with the flexibility to accommodate trade settlement cycles in other markets and time zones. Many European Union (E.U.) member states moved to T+2 on October 6, 2014.

Several markets in the Asia/Pacific region are already settling in T+2 or T+1; other major markets – including Canada, Singapore, Japan and Australia – still settle on the T+3 cycle, but are looking to reduce it. In fact, the Canadian market has announced its plans to move to T+2 on September 5, 2017, coinciding with the U.S market's move.

Harmonization decreases complexity and costs for firms with significant cross-border activity. Currently, 65% of the world's 10 largest exchanges based on market capitalization settle on a T+3 cycle; when the U.S. moves to T+2, only 13% of those exchanges will remain at T+3. The change to T+2 will align the U.S. markets with this global trend, and will bolster certainty, safety, and soundness in capital markets around the world.

STILL ON THE TO-DO LIST

Although the industry has made tremendous progress in its move to T+2, some work remains ahead of implementation.

- **Rule changes:** the Industry Steering Committee continues to meet regularly with all the impacted regulators and SROs. Some have not yet published their rule changes for the new settlement cycle, but all are committed to making their required changes well in advance of September 2017.
- **Development:** with testing set to begin in early 2017, internal development work should be complete and internally tested by the end of 2016. Most firms are on target to participate in testing, having identified their required changes early this year. For industry participants that are farther behind in their preparations, Industry Steering Committee members are conducting robust outreach to ensure everyone is aware of T+2 and its implementation schedule and to address any issues industry members may be encountering.
- **Testing:** a substantial amount of industry testing material has been produced. Now industry participants must devote resources to understanding the suggested test scenarios and putting in place all the connections required to support industry testing.

WHAT TO EXPECT AT IMPLEMENTATION

A lot of thought went into the selection of the implementation date, September 5, 2017. The fifth of September is not typically a high-volume day (no option expirations or index rebalancing) nor a standard corporate action date (the 1st or 15th of a month), and in 2017, it falls conveniently after the long Labor Day weekend, giving participants an extra day to migrate and test code changes.

The move to T+2 will start to impact certain corporate action processing long before the T+2 go-live. Dividend ex-dates are generally announced well in advance of payment dates and payment dates that happen after the T+2 implementation date will have shorter ex-date windows.

The move to T+2 will also require a "double settlement day" (trades on the last day of T+3 and the first day of T+2 will settle on the same day), a situation that is not uncommon in the U.S. but still something participants need to plan for.

NO SIMPLE SOLUTION

The costs and benefits of further shortening the settlement cycle have been a subject of discussion among regulators and industry participants since the implementation of T+3. At the height of the dot-com boom in the late 1990s, when technology firms explored the potential for almost-instantaneous transactions, the financial industry considered T+1 and even T+0.

Recently the industry has even been exploring the use of distributed ledger or blockchain technologies as a tool to facilitate further shortening of the U.S trade settlement cycle.

While DTCC is currently focused on helping move the U.S. financial industry from the T+3 settlement cycle to T+2, we are already two steps beyond that. DTCC's trade-capture and downstream systems have been for many years aligned to support expedited settlement, which occurs on a daily basis for parties that request it. DTCC's Universal Trade Capture (UTC) service, for example, gives clients the flexibility to submit exchange trades for clearance and settlement on either a regular (T+3), shortened (T+0, T+1, T+2), or extended settlement basis across all U.S. markets.

What is the feasibility of moving the U.S. to T+1 or even T+0? Many in the industry cite Blockchain and other new technologies as the solution to the complexities that have, until now, impeded a shift to T+1 or T+0. However, an important reality is not widely recognized: current technology may not be the barrier to a shorter settlement cycle. Much of the core trading, clearing, and settlement processes already support T+1 and T+0. Rather, it is many of the business practices in place across the financial services industry that makes a move so difficult.

While the newest technologies will undoubtedly have a future role in post trade processing, it is unlikely they will be a "silver bullet" for a further shortening of the settlement cycle in an industry like financial services, where the diversity of players, proprietary systems, and cultures is so wide. Making a future transition to a T+1 or T+0 standard settlement cycle would be challenging and require extensive work by the industry – regardless of the technology used. In the meantime, the change to T+2 will mitigate risk significantly for U.S. investors and is an achievement the industry should be proud of.

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