

No day after tomorrow.

DTCC shortens the settlement cycle
from T+2 to T+1

NEXGEN

NEXGEN Whitepaper
August 2022

Johannes Zoller
Sascha Schönsiegel
Jan Stelzer



Everything started with an economic thriller

Considerations of shortening the settlement cycle in the U.S. financial market have been around for some time. However, due to the events that took place on the U.S. stock exchanges at the beginning of 2021, the discussion gained more and more attention.

At the time, a swarm of private investors joined forces with the aim of driving up the price of the retailer GameStop and thus forcing the short sellers out of the stock. GameStop was suffering from a high short-selling ratio at the time, which peaked at 141.8% of freely available share capital on Jan. 4, 2021, according to calculations by financial analysis firm S3.1.¹

The short-selling rate of over 100% can be explained as follows:

Once the short seller borrows the shares from the lender and then sells them on the market, the new owner of the shares can lend them just as the previous owner did, without knowing that he is on the other side of a short sale.

The settlement period takes two days after entering into a transaction (T+2). During this time, the same shares can be lent again and again. Theoretically, this makes it possible to sell short more than 100% of a share's free float.²

In the process, the share price rose by more than 1,300% from the beginning of 2021 to the end of January 2021. This development led to a so-called "short squeeze", whereby short sellers were forced to buy into the borrowed shares at a much higher price than planned.¹

Due to the high volatility and high trading volume, heavy losses and defaults of the trading parties occurred. For example, the hedge fund Melvin Capital initially had to be supported with USD 2.75 billion in new investments and then had to cease operations for good about a year later.³

The counterparty risk described above, and its reduction has since been one of the central arguments for reducing the duration of the settlement cycle.

Background

In an effort to reduce risk while strengthening and modernizing securities settlement in the U.S. financial markets, representative organizations led by the Securities Industry and Financial Markets Association (SIFMA), the Investment Company Institute (ICI), and the Depository Trust & Clearing Corporation (DTCC) initiated a change in the settlement cycle from trade date plus two days (T+2) to trade date plus one day (T+1).⁴

The example above shows that higher volumes and increasing volatility give rise to counterparty risk as well as systemic and operational risks.

In order to collateralize these risks, an average of USD 13.4 billion had to be raised daily for margins in recent years. When volatility increases, margin calls are repeatedly initiated to accordingly increase liquidity buffers. To reduce these risks and lower costs, shortening the settlement cycle is a logical step, as an analysis by DTCC revealed that it could reduce the volatility component of the margin by 41% (this component represented approximately 60% of the total margin in 2020).

Additionally, separate settlement cycles for special processes should also be abolished. The associated automation and modernization of the system infrastructure and the standardization of communication between market participants should offer long-term benefits and cost savings for all market participants. Initially, the focus will be on equities, corporate bonds, UITs, mutual funds, ETFs, ADRs, security-based swaps and options.⁴

Expected Improvements:

| | |
|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
|  Reduction of risks and associated costs |  Increase in the overall settlement efficiency of securities markets |
|  Release of liquidity and better use of capital |  Modernization and harmonization of the system infrastructure |
|  Enhancement of financial market stability |  Standardization of processes |

Risks and challenges:

A fundamental interference in the settlement process, such as the planned halving of the settlement cycle, entails various risks and hurdles. In general, these are related to the planned implementation, as well as the anticipated costs of the T+1 project. Further aspects include rising operational risks and effects on global securities trading:

In particular, the currently foreseen **very short implementation timeline** of the regulation should be mentioned here. In contrast to the previous adjustments to the settlement cycle, only around 2 years are planned for this project. The transition of the settlement cycle from T+3 to T+2, which was completed in 2017, took approximately five years.

Furthermore, new problems arise for cross-border trades, especially when **differing standard settlement cycles** apply **between the involved markets**. This issue takes effect not only in the matter of supply chains across different markets but related to covers with foreign exchange too.

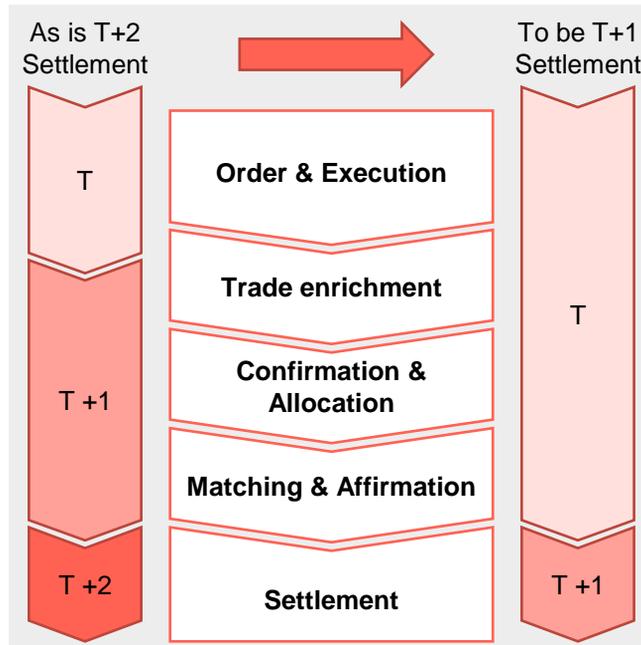
Since almost all processes along the settlement chain are affected, the **implementation expenses of adapting systems and processes** will imply **high costs**.

Shortened cut-off times may have an impact on non-U.S. investors similar to the issue described above and may require **adjustments to work schedules** to allow for timely settlement.

The **number of late matched trades and failing trades** could **increase** in the future if the hoped-for automations and improvements in STP rates do not materialize as planned. In addition, it will become almost impossible to settle trades that require manual intervention in a timely manner.

A higher number of failing trades also **increases** the likelihood of **buyer-initiated buy-ins** and could therefore result in additional costs for investors.

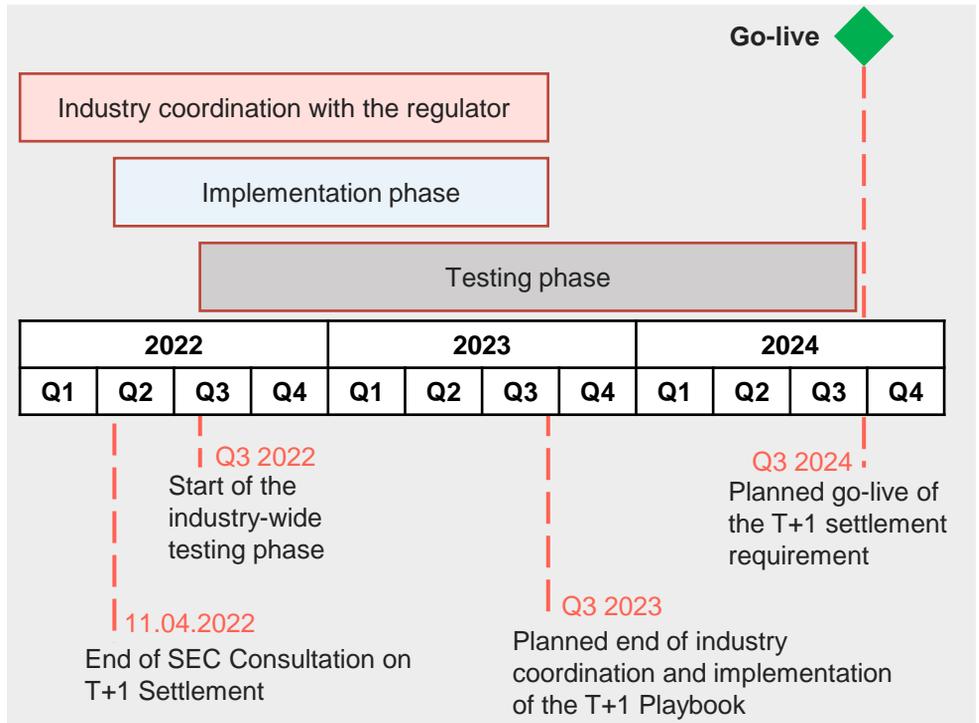
Impact on the settlement process:



The following is a selection of the issues resulting from the shortening of the settlement cycle, identified as critical by NEXGEN. Depending on the respective business model, a dedicated impact analysis is required.

- Shortened coordination and allocation times with trading counterparties
- Increased quality of information provision to depositories, especially SSIs
- Reduction of cut-off times along the entire settlement chain
- Adjustments to SLAs - Discussion with intermediaries necessary
- Standardization of communication between market participants inevitable
- Improved STP rate to minimize time-consuming exception handling
- Less time for the management of fails in order management - More efficient communication channels with custodians
- Amendment of the organizational set-up - Change in the work schedule to serve the U.S. market
- Settlement problems of trades between markets with T+2 and T+1
- Adaptation of corporate actions logics
- Reconsideration of the recall process when selling loaned shares

Current DTCC timeline⁴:



The adjustments to prepare for the T+1 settlement cycle must be implemented within a short period of time:

- Less than two years remain until the proposed go-live date
- The transition from T+3 to T+2 came into effect on 05.09.2017 and took approximately five years to implement⁵

Open issues

As the upcoming regulation has not yet been finally adopted by the SEC, some uncertainties and open points remain:

- Currently published timeline could be adjusted again
- Adjustment of cut-off times in the U.S. financial market
- Introduction of a communication standard for corporate actions
- Exemptions or minor adjustments for primary market transactions

NEXGEN's T+1 team participates in relevant (market) discussions to talk about open issues and actively raise new points for our customers.



Why not T+0 right away?

While the industry was analyzing the move to T+1 settlement, the Industry Working Group (IWG) was also examining the impact of a straight move to T+0 settlement. The Industry Steering Committee (ISC) and the IWG unanimously concluded that T+0 settlement is not feasible in the short term given the current status quo of the settlement system. Shortening the settlement cycle to T+0 would require a comprehensive modernization of today's clearing and settlement infrastructure, changes to business models, revisions to industry-wide regulatory frameworks, and the potential introduction of real-time currency movements. In addition, the IWG emphasizes that the introduction of such technologies would disproportionately burden small and medium-sized businesses, that currently rely on manual processing and existing systems, and which may not have the financial and technical resources to modernize their operational infrastructure in the near term. With future innovation in mind, the IWC intends to continue monitoring technological developments within the settlement system and implement cost-effective solutions where possible while moving forward with the implementation of T+1 settlement first.

Potential impact of T+0

Below are some of the key areas that would experience significant disruption in a T+0 environment:

Reorganization of securities settlement

T+0 settlement would require the restructuring of many securities settlement processes to meet regulatory, operational, and contractual requirements. Examples include institutional trade settlement, approval and control processes, securities lending, foreign exchange markets, and global settlements across multiple jurisdictions.



Global handling

Foreign investors with exposure to U.S. securities face increasing risk due to asynchronous opening times between different markets. These investors may need to pre-fund cash positions and securities prior to trading to be able to meet contractual requirements. Currency exchange (FX) could be problematic due to different settlement times.

Transaction netting

Significant changes to the netting process would be required to maintain its benefits. Eliminating netting, on the other hand, would result in larger volumes of securities and cash that need to be moved during a trading day. This increases the risk of trading and settlement errors.

Real-time inventory reporting

The introduction of real-time or near-real-time portfolio reporting would be required to allow for an always up-to-date view of the portfolio and steering clear of unwanted short positions. Complying with regulatory thresholds at any time and enabling real-time risk calculations would present further necessities.

Higher number of failing trades

Due to the short time available, it would be possible to intervene manually only to a more limited extent. Correcting falsely entered settlement instructions on time so that they settle on the same day has been a common procedure in the T+2 settlement environment.

Liquidity planning

T+0 does not allow for forward-looking liquidity planning, as the necessary cash reserves must be available on the same day as the settlement of the transaction. In a T+0 environment, it is thus not possible to plan cash coverage in the same way as today.



Initial public offerings, derivatives markets and corporate actions

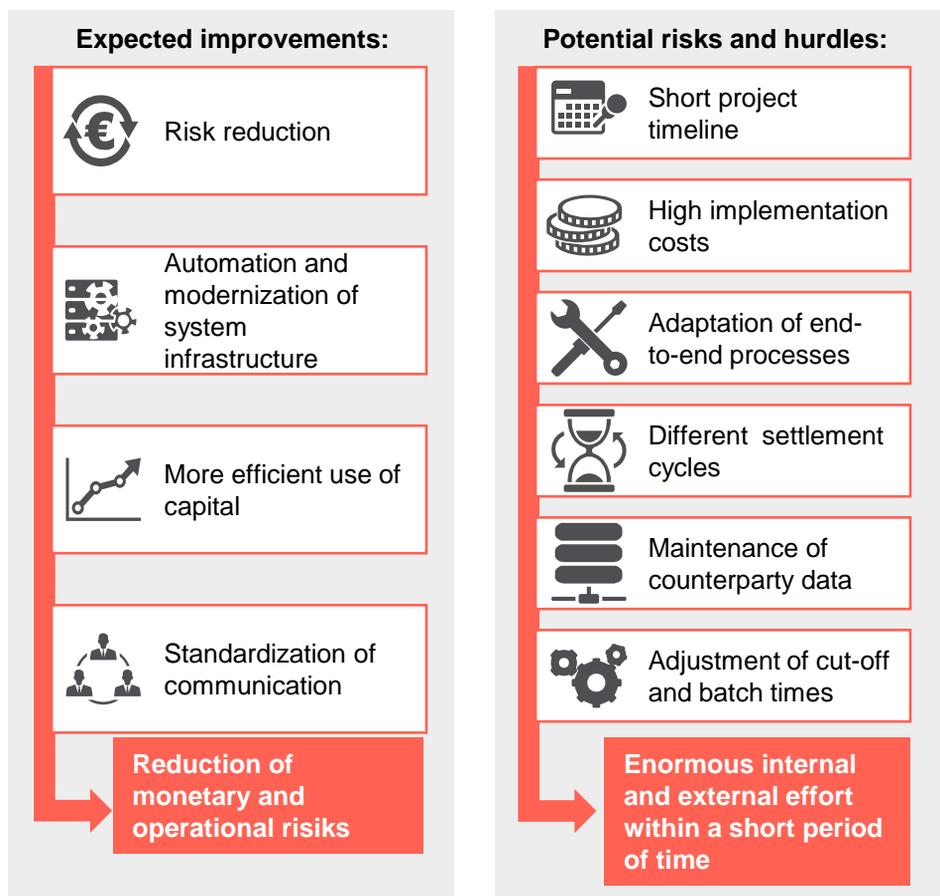
Settlement activities in the primary market need redesigning to ensure the execution of these transactions in a shorter timeframe. Often, these processes extend over several trading days due to their complexity. The legal and contractual obligations may not be met within the allowed timeframe for same-day settlement.

Securities lending

The recall of loaned securities by the lender due to an intended sale would not be practicable in a T+0 environment as it is today and would require a major overhaul of infrastructure and operational processes. In general, the entire process of securities lending via securities lending agents would have to be questioned.

Conclusion and evaluation

The planned shortening of the settlement cycle from T+2 to T+1 will bring numerous benefits and have a positive impact on the involved systems and affected processes in the financial industry. Settlement costs will be reduced in the long term thanks to the more modern, harmonized and digitalized settlement processes. Nevertheless, it should be noted that the implementation of the process and system requirements will have to take place in a short period of time, resulting in increasing pressure on market participants. Since all securities settlement processes are potentially affected, financial institutions should immediately begin executing internal preliminary studies to identify dependencies and adaptation requirements in due time. Conducting an expenditure estimate at an early stage is therefore indispensable to capture and plan for the expected costs that the extensive adjustments will entail.



Interested in more information?

Would you like to know if and which processes exactly need to be adapted or optimized in your company to meet the requirements of the shortened settlement cycle?

Are you wondering which levers you can pull to create the biggest impact and where you currently stand compared to other firms in your industry?

Or are you interested in general questions concerning T+1 settlement and the securities settlement processes? Would you like to find out how you can further improve in this field?

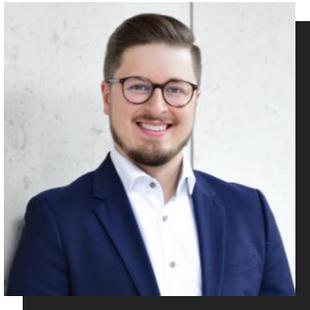
We look forward to hearing from you to discuss your individual questions and requests.



Johannes Zoller

Manager

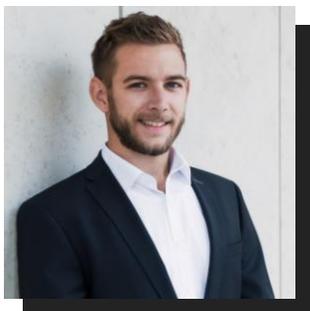
Johannes.zoller@nexgenbc.com



Sascha Schönsiegel

Senior Consultant

Sascha.schoensiegel@nexgenbc.com



Jan Stelzer

Senior Consultant

Jan.stelzer@nexgenbc.com

Source list

- 1) Zdrzalek, L. (30. 01 2021). Klar, dass das in Tränen endet. Wirtschaftswoche.
Von: <https://www.wiwo.de/finanzen/boerse/gamestop-aktie-klar-dass-das-in-traenen-endet/26867424.html>
- 2) McCrank, J. (18. 02 2021). Explainer: How were more than 100% of GameStop´s shares shorted?. Reuters.
Von: <https://www.reuters.com/article/us-retail-trading-shortselling-explainer-idUSKBN2AI2DD>
- 3) SPIEGEL Wirtschaft. (19. 05 2022). Hedgefonds Melvin Capital hat sich verzockt – und muss aufgeben.
Von: <https://www.spiegel.de/wirtschaft/unternehmen/gamestop-saga-hedgefonds-melvin-capital-gibt-auf-a-2d56d334-1e13-4b60-8919-0036fa07a69d>
- 4) DTCC, sifma, ici, & Deloitte. (2022). T+1 Securities Settlement Industry Implementation Playbook.
Von: https://www.dtcc.com/-/media/Files/PDFs/T2/T1-Industry-Implementation-Playbook.pdf?mkt_tok=NjY5LVFJTC05MjEAAAGF_k0mxtaGkIRQ28q2iNMmBN3KojdLI8KiGXsL_csT9DM3sntWhjmHzNJHd9Elh5V_-GehXFY0itHbu1FiGLE
- 5) Investment Company Institute. (2018). ICI.org.
Von <https://www.ici.org/ssc/background>
- 6) DTCC. (2022). Accelerated Settlement (T+1). DTC, NSCC and ITP Functional Changes.
Von: https://www.dtcc.com/-/media/Files/PDFs/T2/T1-Functional-Changes.pdf?mkt_tok=NjY5LVFJTC05MjEAAAGGAuAiTYbdgppZAMyukjkiJUzqGO2y4KqLz_D7okkmPkh_jH5e3StWxkEzh-x0u922p5VbxknezVlkGzOQM5FU3v4Vj2HNXsIrERKYFjY3agqweA



NEXGEN

Dieses Werk ist urheberrechtlich geschützt. All rights reserved.

NEXGEN Business Consultants GmbH
Franklinstraße 61-63
60486 Frankfurt am Main