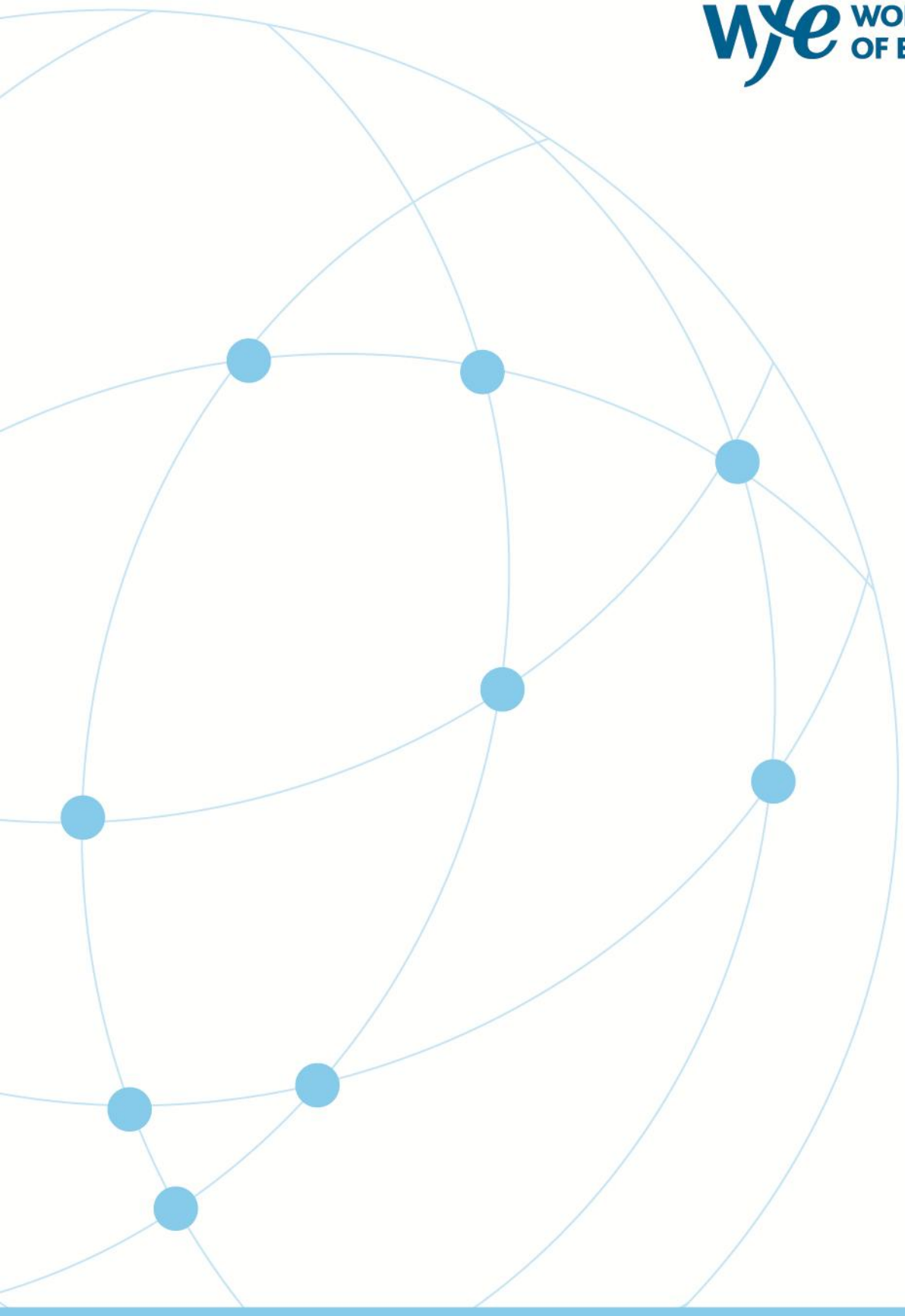
WORLD FEDERATION OF EXCHANGES



Industry Guidance on Managing Transitions to T+1

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Background

Established in 1961, the World Federation of Exchanges (WFE) is the global industry association for exchanges and central counterparties (CCPs). Headquartered in London, it represents over 250 market infrastructure providers, including standalone CCPs that are not part of exchange groups. Of our members, 37% are in Asia-Pacific, 43% in EMEA, and 20% in the Americas.

The WFE's 87 member CCPs and clearing services collectively ensure that risk takers post some $1.1 trillion (equivalent) of resources to back their positions, in the form of initial margin and default fund requirements. WFE exchanges, together with other exchanges feeding into our database, are home to over 49,000 listed companies, and the market capitalisation of these entities is over $116.58 trillion; around $155 trillion (EOB) in trading annually passes through WFE members (at end 2024).

The WFE is the definitive source for exchange-traded statistics and publishes over 350 market data indicators. Its free statistics database stretches back 49 years and provides information and insight into developments on global exchanges. The WFE works with standard-setters, policy makers, regulators, and government organisations around the world to support and promote the development of fair, transparent, stable and efficient markets. The WFE shares regulatory authorities' goals of ensuring the safety and soundness of the global financial system.

With extensive experience of developing and enforcing high standards of conduct, the WFE and its members support an orderly, secure, fair, and transparent environment for investors; for companies that raise capital; and for all who deal with financial risk. We seek outcomes that maximise the common good, consumer confidence and economic growth. And we engage with policy makers and regulators in an open, collaborative way, reflecting the central, public role that exchanges and CCPs play in a globally integrated financial system.

If you have any further questions, or wish to follow-up on our contribution, the WFE remains at your disposal. Please contact:

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Introduction

Shortening the settlement cycle for securities has advantages but needs careful handling to ensure that it does not do more harm than good. This paper analyses why, and what to do about it. It is designed to draw out the lessons from the transitions of 2023 and 2024, and to provide a template for any countries looking to shorten their own settlement cycle in a safe and efficient manner.

The settlement cycle, which represents the period between the execution of a trade and its settlement (i.e. the time that market participants have obtain the money for a security), plays a crucial role in the functioning of financial markets. In recent years, jurisdictions have sought to shorten settlement cycles, aiming to reduce residual market risk, enhance liquidity, and modernise market technology. Recent transitions to a T+1 timeframe (Trade Date plus one day) have demonstrated improved efficiency, as well as reduced margin requirements[1] and fund contributions[2] from market participants. However, numerous challenges exist regarding industry preparedness and coordination, especially in regards to cross-border impacts on certain instruments and asset-classes. When considering the lessons learned from recent transitions, the WFE recommends that regulatory bodies conduct thorough impact assessments and determine operational readiness in conjunction with industry before committing to such transitions. Any plans should incorporate feedback from market infrastructure providers such as CCPs, particularly on issues such as potential timelines and system-wide testing or pilot programs. The WFE also advises that theoretical moves to models such as T+0 or atomic settlement do not represent a logical next step for serious consideration at present.

The case for shortening settlement cycles

In recent years, jurisdictions have sought to shorten settlement cycles, aiming to reduce the build-up of balances on unsettled trades. The longer the time from trade to settlement, the higher the amounts that could be at stake if a counterparty defaults, because there is more time for changes in the market price of securities to occur. By decreasing the time between trade agreement and the exchange of cash for securities, the risk of market fluctuations is minimised, especially during periods of high volume and volatility. This also allows customers to receive their funds or securities more quickly.

Another key consideration is the impact on costs for market participants. A shorter window of exposure to price volatility and counterparty risk is a way to lower the amounts of margin required by central counterparties (CCPs) when clearing trades, as fewer potential price changes would result in fewer margin calls made to clients. This reduced capital burden would thus be expected to release cash and help market participants during volatile periods, creating more opportunities to use capital efficiently and increase overall market liquidity.

Shortening settlement cycles has also been seen as a way to modernise technology and infrastructure, promoting investment in new systems and procedures to facilitate the automation of manual processes, such as the adoption of Straight-Through Processing (STP) to enable match-to-instruct capabilities for trade affirmation (where relevant) and confirmation.

T+3 to T+2

The global standard for securities settlement, as set out by CPMI-IOSCO, remains no later than T+3 (trade date plus three business days)[3]. This timeline allowed for administrative and operational processes to ensure accurate settlement. However, technological improvements in terms of what participants can process have paved the way for shorter cycles.

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[1] *See NSE Clearing's Quantitative PFMI Disclosures, which outline that collected margin fell from 56 billion rupees in December 2022 to 26 billion at the end of March 2023 after most of the large securities in India moved to T+1 in the first quarter of the calendar year: https://www.nseclearing.in/disclosures/pfmi-disclosures*

[2] *See DTCC's T+1 After Action Report, which outlines that the NSCC's clearing fund decreased by 23% following the move in the US: https://www.dtcc.com/news/2024/september/12/sifma-ici-and-dtcc-release-t1-after-action-report*

[3] *Annex D of the CPMI-IOSCO PFMI on Selected RSSS marketwide recommendations (recommendation 3: settlement cycles).*

In 2014, the European Union (EU) transitioned to a T+2 settlement cycle for most securities under the Central Securities Depositories Regulation (CSDR). The United States (US) followed suit in September 2017, when the Securities and Exchange Commission (SEC) mandated T+2 for equities, bonds, and other financial instruments. This harmonisation reduced systemic risk and aligned the US with European markets, fostering greater efficiency in cross-border trading. Japan, Hong Kong, and Australia also adopted T+2 settlement cycles in subsequent years, creating a more globally synchronised approach to securities settlement. These transitions reflect a broad consensus on the benefits of reducing counterparty exposure and operational risks.

The shift to T+1

Since their inception in the early 1990s, modern Chinese exchanges have implemented accelerated settlement for mainland A-share markets, where the transfer of ownership of securities occurs on trade date (T+0), and the transfer of funds occurs on the following business day (T+1). However, investors are required to hold purchased shares until at least the next trading day before selling as per regulation implemented to limit speculation and maintain market stability. Furthermore, foreign investment shares follow a T+3 cycle, while bond markets vary between T+2 and T+3 for transactions involving overseas institutional investors.

However, it took until November 2021 for the Indian Securities and Exchange Board (Sebi) to announce that India would become the first jurisdiction to completely shift to a T+1 trading cycle. This was concluded on the 27th of January 2023, following a phased approach, wherein the bottom 100 stocks in terms of market value moved to T+1 in February 2022, and 500 more stocks were added in order of market value every month thereafter.

On the 15th of February 2023, the SEC followed suit, announcing that the US would move to T+1 on the 28th of May 2024. The Canadian Capital Markets Association (CCMA)[4] quickly announced they would also move to T+1 one day earlier on the 27th of May. They were then joined by Mexico, Jamaica, Argentina, and Peru during the months leading up to the switch.

In other jurisdictions, the United Kingdom (UK) launched the Accelerated Settlement Taskforce (AST) in December 2022 to explore the potential for faster settlement. In March 2024, the AST announced that the UK would move to T+1 by the end of 2027. This was then followed by an announcement from the European Securities and Markets Authority (ESMA) in November 2024, outlining that the EU would move to T+1 on the 11th of October 2027. Furthermore, in January 2025, ESMA announced the creation of the EU Industry T+1 Committee, expected to further coordinate aspects related to the T+1 transition and help bridging the fragmented nature of the EU markets. Chile, Colombia, and Peru are also looking to follow suit in a coordinated fashion.

Outcomes from moving to T+1

In September 2024, the Depository Trust & Clearing Corporation (DTCC) released their "T+1 After Action Report," which reviewed the transition to T+1 in the US, and outlined some initial data points following the shift. The report concluded that the move to T+1 was successful, due to the following metrics:

- At publication date, nearly 95% of transactions met the affirmation criteria by the 9pm ET cutoff on trade date. This marked a notable improvement from the 73% affirmation rate recorded at the end of January 2024.
- The clearing fund maintained by the DTCC's National Securities Clearing Corporation (NSCC) decreased by 23%, from $12.8bn to $9.8bn.
- The average Continuous Net Settlement (CNS) fail rate for July 2024 remained stable at 2.12%, while the average non-CNS fails rate remained stable at 3.31%.

[4] *Canadian Capital Markets Association (CCMA), "T+1 Portal", http://ccma-acmc.ca/en/wp-content/uploads/All-about-the-CCMA-Tour-savoir-sur-lACMC.pdf*

Lessons learned and considerations for adoption

Operational Readiness is Critical
Recent transitions have underscored the importance of comprehensive operational preparedness. Market participants who invest in upgrading their technology, automating processes, and testing experience fewer disruptions, while firms that began preparations well in advance of the deadline are better equipped to manage the transition.

Industry Collaboration is Essential
Transitions require unprecedented levels of coordination between regulators and industry participants. Establishing clear, standardised protocols help to ensure that all market participants adhere to consistent timelines and processes, while ongoing communication between stakeholders ensures rapid resolution of emerging issues. Collaborative, industry-wide testing is also crucial to ensuring that systems operate smoothly across the trading, clearing, and settlement lifecycles.

Technology and Automation are Key Enablers
Automated post-trade processing is vital for meeting an accelerated timeline. Manual interventions create bottlenecks, emphasising the need for investment in Straight-Through Processing (STP) to facilitate end-to-end automation from trade execution to settlement and reduce errors or delays, as well as real-time data reconciliation to detect and resolve discrepancies quickly.

Liquidity Management Processes Must Be Adjusted
Shortening settlement cycles significantly affects liquidity management dynamics, as participants must adjust their cash and securities availability to meet new deadlines. Firms should implement continuous monitoring of liquidity positions to ensure they can meet obligations without disruption, as well as enhanced cash forecasting in order to avoid settlement failures.

Regulatory Alignment and Flexibility are Crucial
Regulators play a pivotal role throughout T+1 transitions, and must provide clear guidelines, set realistic timelines, and remain flexible and open to industry feedback. Phased implementations, including pilot programs and gradual scaling, have proven successful in allowing firms to adapt progressively, while clear protocols for handling exceptions and fails helps to minimise systemic risks during the transition period.

Upgrade Costs are Significant
Shifting to T+1 also presents a number of costs and challenges that should be considered by jurisdictions looking to transition in the future. In particular, upgrading or replacing existing operational and technological infrastructure represents a considerable expense to the industry. Some smaller firms in particular face resource constraints in upgrading technology and automating processes. Many CCPs face significant one-time costs for design, implementation, and testing for the adjusted and extended netting and end-of-day processing, and increased running costs such as additional reporting. Impacted processes include the linking of single trades by Clearing Members; trade Date Netting; the sending of settlement instructions, and the generation and provision of CCP reports. It is important to ensure that costs do not outweigh benefits. Furthermore, rushed transitions will be more expensive than methodical ones, as well as being less risky in terms of project completion.

Global Considerations Remain
Cross-border trades pose timing challenges, particularly for regions operating on longer settlement cycles. Time zones create complexities for foreign investors, especially when dealing with foreign currency exchange (FX) transactions, which have typically operated on a T+2 basis, with transactions occurring after a security purchase has been confirmed. A shortened settlement cycle also presents challenges for instruments with underlying components that are tradable across multiple markets. ETFs are particularly impacted by settlement cycle changes, due to their global composition with underlying securities across multiple jurisdictions. Lastly, it is important to consider the impact that misaligned settlement

cycles across jurisdictions might have on market participants, especially those coming from markets operating on T+2 and are trading securities on foreign markets that already transitioned to a T+1 settlement cycle.

Atomic settlement and T+0

Not a logical next step

Additional shortening of the settlement cycle raises fundamentally different questions (that are different in concept, not just degree) to questions raised by transitions to T+1. Furthermore, when looking beyond T+1, it is important to distinguish between atomic settlement and T+0 (Trade Date plus zero days). Atomic settlement represents the immediate settling of trades after a buy or sell order is placed, which would likely rely on new technology in the early stages of development, such as Distributed Ledger Technology (DLT). Atomic settlement would require post-trade processes to occur before trading, such as provision of allocations and exchange of settlement information, positioning of sufficient securities by the seller, and the pre-funding of the settlement amount by the buyer in the correct currency. This model would require a complete transformation of the trade lifecycle, removing the liquidity-saving convenience of settling to a delay, tying up capital, and losing the efficiencies and risk mitigation gained from multilateral netting when clearing through a CCP, which may no longer be utilised in an atomic settlement environment.

On the other hand, T+0 represents settling the trade on the same day, either throughout the day at certain times, or at the end of the day at close-of-business. An "end of day T+0" model preserves certain benefits such as the cost efficiencies and risk mitigation received from multi-lateral netting when clearing through a CCP. Although not so much of a complete overhaul when compared to atomic settlement, an immediate move to T+0 settlement would still require a considerate transformation of current pre- and post-trade processes. The WFE encourages any consideration of T+0 to take place only after the move to T+1 has been successfully completed and with a careful quantification of the benefits.

Conclusion

Shortening the settlement cycle may bring benefits in terms of technological modernisation, increased capital efficiency, and reduced counterparty exposure. However, a shorter settlement cycle presents substantial challenges, and successful adoption requires an industry-wide effort to update operational processes. Any steps towards a shorter settlement cycle should involve extensive industry-wide engagement, a robust cost benefit analysis, impact assessment, and feasibility study, with an outline of potential risks, dependencies, and bottlenecks, as well as a transparent decision-making process with a clear migration decision-point. The WFE encourages regulators to assess market readiness and consider the level of technological and operational change required by market infrastructure providers, and sufficient time should be provided to accommodate improvements to trading and post-trade processes by market participants. A schedule should be created, highlighting a transparent decision-making process and decision-point, and if it is decided to shorten the settlement cycle, this should take place according to an agreed industry roadmap, including continuous assessment of industry preparedness, as well testing under the shortened settlement cycle, issue resolution, and migration management during the period leading up to any migration.

Furthermore, the WFE highlights that moving beyond T+1 would require a fundamental overhaul of market infrastructure, technology, and regulatory frameworks, and that any further work regarding moving to T+0 or atomic settlement should involve significant additional consideration of these risks and their potential consequences.