Education | Equity

The market and index impact of shorter equity settlement cycles

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What is changing in May 2024?

In February 2023, the US Securities and Exchange Commission (SEC) adopted rule changes to shorten the standard settlement cycle for most broker-dealer transactions in securities from two business days after the trade date (T+2) to one (T+1). The rule change covers US equities, corporate debt and unit investment trusts and it comes into effect by May 28, 2024.

Subsequently, Canada and Mexico also determined that they would adopt the shortened settlement cycle, concurrent with its implementation in the US.

What are the key benefits of a shorter settlement cycle?

The primary benefits of a shorter settlement cycle are reasonably well known and generally accepted: greater settlement efficiency protects investors by reducing systemic risks, operational risks, liquidity needs and counterparty risks. It also makes a positive contribution to a reduction in margin requirements and allows investors quicker access to the proceeds from a sale trade. These arguments have been articulated, among others, by the Securities and Exchange Commission (SEC) in the United States and the Securities and Exchange Board of India (SEBI).

Does the rule change have local or global investors in mind?

The arguments put forth in support of a shortened settlement cycle for equity markets focus primarily on the benefits to the relevant local market. It is typically local regulators, in combination with other key local market authorities, that are driving the change in each country/region.

How have equity settlement cycles changed through time?

It is interesting to note that the New York Stock Exchange used T+1 settlement in the 1920s, and the American Stock Exchange used T+2 prior to 1953. These settlement periods were gradually extended as equity market activity levels rose and dealers, operational teams and custodians struggled with the manual form-filling associated with equity settlement. For example, there was a famous ‘paperwork crisis’ in the US securities markets in the late 1960s, which raised concerns about the solvency of some broker/dealers.

In other global equity markets, it was not uncommon for settlement to occur on a weekly, biweekly, or even monthly settlement cycle. Some of the major markets in Europe operated in this way: for example, the London Stock Exchange’s fortnightly ‘account’ system of settlement, in place for over two hundred years until 1994, allowed market participants over three weeks of credit before having to pay for newly acquired shares.

However, during the last 30 years there has been a reversal of the trend to allow longer settlement periods, which is partly down to the dematerialisation of share certificates (the movement from paper-based to computerised share ownership records).

The first real attempt to shorten equity market settlement cycles came in recognition of the market risks emanating from the 1987 stock market crash. The Bachmann Report, issued in 1992, recommended that the US move swiftly to reduce the equity settlement cycle from T+5 to T+3. This change occurred in 1995. Many European markets also moved to T+3 in the early 1990s, with the UK shortening its cycle from T+5 to T+3 in 2001.

Fast forward to the last 10 years and the previous “gold standard” of a T+3 settlement cycle has shortened to T+2 in many, though not all equity markets. Also, within a similar 10-year timeframe, the settlement protection offered by Delivery versus Payment (DvP)[1] has become a prerequisite to be considered an investable market, not just a feature of a more sophisticated trading venue.

Which markets are the most likely first movers to T+1?

The likely first movers to T+1 are equity markets where liquidity provision is dominated by the transactions of local participants: notably the US, India, and China.

As of June 2022, foreign investors are estimated to own about 19.6% of the US securities market, according to data from the US Department of the Treasury and the Global Financial Markets Association.

In India, the proportion of foreign ownership is also estimated to be close to 20%, whereas in China the international holding in ‘A’ shares is around 4%. This is in stark contrast to Germany, the UK, and other major European markets, where the proportion of foreign ownership of local equities may be as high as 70%.

Mexico and Canada are interesting exceptions, in that these markets are not so dominated by local traders but are still scheduled to mirror the US shift to T+1 settlement. These markets’ geographic proximity, time zone overlap and other linkages to the US market are significant offsets to the high proportion of non-resident investors. In addition, their relatively high foreign ownership levels may be dominated by other North/Central American investors, according to the OECD and UNCTAD's 2022 World Investment Report.

[1] Delivery versus payment (DVP) means that a change in ownership of securities takes place only after payment is made.

Where do European markets currently stand on a shortened settlement cycle?

For European markets, the discussion about the benefits of a shortened settlement cycle, and the appropriate time to move, are subject to significant industry discussion. Undoubtedly, there is some pressure exerted on European market participants by the moves in North and Central America.

In the UK, HM Treasury established the Accelerated Settlement Taskforce (AST) in early 2023, with the aim of producing an interim report at the end of 2023 and a final report by the end of 2024. Working to a similar timescale, the European Central Securities Depositories Regulation (CSDR) mandated the European Securities and Markets Authority (ESMA) to produce a report by the end of 2024 on the costs and benefits of a potential shortening of the settlement cycle in the EU. A call for evidence on the topic was launched in October 2023, with the consultation deadline for industry comments set for mid-December 2023.

Subsequent to the publication of the interim report in the UK and call for evidence in Europe, the UK Government has established a Technical Group to progress the implementation of the UK move to T+1. The group will work to determine the timetable for the mandated changes by sometime in 2025. The announcement indicated a target a 'go-live' date no later than the end of 2027. The ESMA response has been more muted. It recently published its report on the feedback it received, ruling out any likelihood of moving to T+0, and revealing its intent to continue engagement with the financial industry and publishing a further report before 17 January 2025.

When compared to a single market considering a reduction in the settlement cycle, Europe's situation is far more complex. The existence of multiple currencies, depositories and jurisdictions is just part of the challenge. Alongside this are the significant financial penalties for trade failure set by European regulators.

To this point, the CSDR's focus on ensuring a safe and efficient settlement process to improve the attractiveness of the EU bloc's capital markets seems to be at odds with a T+1 cycle. Realistically, shortening the settlement cycle is likely to increase the probability of failed trades. Consequently, the associated penalties are a significant potential concern for market participants.

Although the European Union and the UK now have separate financial market regulations, both continue to reenforce the desire to co-ordinate their respective transitions. Certainly, policymakers in both markets would like settlement reforms to deliver structural market improvements that create greater efficiencies.

What is the Asia-Pacific perspective on a reduced settlement cycle?

The Asia-Pacific dealing and settlement landscape is more disparate than in Europe. As well as having a diversity of currencies, depositories and jurisdictions, the region has a large span of time zones and a variety of technologies in use. Additionally, different Asia-Pacific markets are at different stages of market evolution.

More granular differences are also evident, such as the prohibition of overdrafts in certain markets, currencies that do not trade outside the local time zone, the need for a pre-trading check to ensure the availability of funds, or a lack of market mechanisms (such as securities lending) to facilitate settlement. This diversity leads to a plethora of settlement solutions and settlement timeframes within the region.

It is perhaps appropriate to focus on some of the more notable regional markets. For example, India completed its phased transition from T+2 to T+1 in January 2023. Within local Chinese exchanges, the settlement timescale is T+0 (same day) for securities and T+1 for cash.

Most other markets in the region remain on a T+2 settlement cycle. Although a shortened settlement cycle has been raised as a topic for discussion in many financial centres, there is no indication that other Asia-Pacific markets are on the cusp of a change to T+1 settlement.

However, if Europe and the UK follow the lead of the US, the topic is likely to receive far greater attention. Hong Kong or Singapore might be front-runners, given the internationalisation of these particular markets. Certainly, Hong Kong's linkage to mainland China, through the trading and settlement mechanisms of Stock Connect (see below), may provide useful experience.

For Australia and New Zealand, their distinct time zone represents one of the greatest settlement challenges: these equity markets are half a day ahead of Europe and almost a day in advance of West Coast America. As a result, the settlement of local equity trades on a T+1 cycle would represent close to T+0 settlement for most non-resident investors.

As the US changes to T+1, it will be interesting to observe how settlement occurs in the market for American Depositary Receipts (ADRs) representing Asia-Pacific shares. The ADRs will now need to settle on a T+1 basis, which will be out of sync with the settlement of the underlying shares (which will remain on a T+2 cycle in most Asia-Pacific markets).

What other key changes to equity settlement timelines will need to occur?

It is estimated that more than 75% of the confirmation and settlement activities that now occur on T+1 will need to happen on T+0—the trade date itself. For example, rather than using a batched approach for trade allocation on T+1, a relatively common custodial practice, all trade affirmations will now need to be processed on the trade date[2].

In turn (and as is currently the case in India and China), the cut-offs for trade settlement instructions will be early- to mid-evening on the trade date. In the US equity market, the allocation of trades will need to be complete by 7pm EST under T+1, with the deadline for trade affirmation occurring two hours later, at 9pm EST. Although this may be slightly more manageable for firms with West Coast operations, it does not reduce the operational workload.

Some of the new time pressure will fall on the back offices of investment managers and brokers, but typically it is the custodian banks and depositories that will experience the most strain. These firms' operational teams will need to work to solve the resulting issues and reduce their likely workload by applying more technology and putting appropriate controls and working practices in place.

[2] Trade allocation means dividing a large (block) trade into smaller ones and assigning them to different accounts or portfolios. Trade affirmation, the next step in the settlement process, involves both parties to each trade agreeing that settlement details are correct.

What are the implications for other market processes that support equity settlement?

T+1 equity settlement represents a challenge to associated financial market processes, such as foreign exchange and securities lending. These markets, which are critical to the smooth functioning of the settlement process, currently work to a T+2 schedule. If securities lending processes are not improved, there may be an increase in the volume of failed settlements. Industry groups in foreign exchange and securities lending are therefore examining changes to cut-off times to aid with T+1 equity settlement.

Other financial market operating models, for example those supporting exchange traded funds (ETFs) and corporate action processing, may also need review. The ex-date for corporate actions has typically been one day prior to the record date, enabling trades to settle in advance of the record date cut-off. To operate with the same effectiveness as at present, the creation and redemption of units (in the case of ETFs) and the ex and record dates for corporate actions will almost certainly need to become same day.

Table 1: New time pressure under T+1

Activity	Time available under T+2 settlement regime (from US market close on trade date)	Time available under T+1 settlement regime (from US market close on trade date)
Trade allocation	Up to 14.5 hours	3 hours
Trade affirmation	14.5 hours	5 hours
Securities loan recall	18.5 hours	3 hours
FX conversion	Up to 24 hours	3 hours/Pre-fund?
ETF creation/redemption	Up to 24 hours	3 hours
Ex/record dates for corporate actions	Up to 24 hours	3 hours

Source: FTSE Russell, January 2024.

Are the efficiency and risk benefits promised by T+1 achievable?

The limited evidence available suggests that, with significant preparation, the shortened settlement cycle can deliver the desired benefits for local market participants.

However, as previously indicated, the challenges of T+1 settlement are amplified for non-domestic investors, particularly if they are operating outside the local time zone. The primarily local purview of those championing settlement change means that the needs of international participants are usually less well considered during the operational re-engineering.

What challenges exist for non-domestic market participants?

A shortened settlement cycle creates significant challenges for non-domestic market participants in the form of greater operational complexities.

These may manifest themselves in numerous ways, such as the truncated deadlines for trade processing flows (often exacerbated by time zone issues) or the need to convert the local currency into that of the international investor's (or fund's) domicile. These challenges are likely to be magnified if the investor is managing a global equity or multi-asset-class portfolio, as there are frequently mismatches in settlement timeframes, as well as in the settlement flexibility offered for each asset class and/or market.

What are the key foreign exchange challenges associated with T+1 settlement?

Shortened equity settlement may create foreign exchange challenges for fund managers in the same time zone, but these will be amplified for those operating around the world. The impending change to T+1 in the US is likely to be a real test for European and, especially, Asia-based managers. For example:

– European managers will potentially only know the amount required for their FX hedge late in the evening, at 9/10pm local time; and
– In Asia, it will be early in the next trading day, thus effectively creating an FX execution requirement of T+0

The local cut-off times for domestic payments systems often operate for a small part of the day, adding to the difficulties. Consequently, an investor needs to execute and confirm his/her equity trade, provide accurate details to custodians and other service providers, calculate the FX hedge and then execute it within a very short window.

An additional complexity arises from the FX value date change that occurs at 5pm Eastern Standard Time (EST), shortly after the US equity market's close. Under the FX market's convention, a trade submitted for execution after this time is currently time-stamped for the next working day. In effect, an FX trade occurring after 5pm EST will be a T+0 trade if it needs to settle on the next calendar day.

The potential danger is that these complexities may magnify the likelihood of operational errors, which in turn may increase the number of failed trades. While there are no real penalties in the FX market for failed trades, this is not true for equities, where the costs and ramifications may be severe. The accuracy of the underlying transaction, therefore, becomes paramount before the hedge value is calculated. This puts increased pressure on the investment manager and its service providers to avoid any mistakes in post-trade processing.

The change in the equity settlement cycle will also likely have an FX market impact, since foreign exchange liquidity is typically at its lowest immediately after close of the New York Stock Exchange. This is intensified by the actions of major FX participants and the providers of the FX trading infrastructure, who typically choose to suspend operations at this time to complete end-of-day maintenance and administration. Consequently, executing transactions in the evening New York time can be challenging, with competitive rates difficult to find.

There are other complexities related to foreign exchange. For example, the US dollar is significantly more liquid and available to trade offshore (for example, in London) than in the US. In other currencies, offshore trading may be restricted or even unavailable outside the local time zone and the FX transaction may have to be tied to an underlying securities transaction.

And shortening US equity settlement times to reduce operational risks may, perversely, have the opposite effect in the FX market. Currently, most large FX trading firms make use of Continuous Linked Settlement (CLS), an independent multi-currency settlement system for foreign exchange transactions, to reduce counterparty risk. If FX trades have to be settled same day (T+0), the netting services of CLS may no longer be available, meaning that the counterparts to the FX transaction incur new bilateral risk exposures to each other.

Can offshore investors navigate the operational challenges of T+1 settlement?

The largest global investment managers, brokers and custodians have some advantage in being able to pass operational responsibilities to in-house colleagues located in other time zones. However, many asset management firms or other large investors, such as corporate pension funds, industry/community-based investors or sovereign wealth funds, cannot do this and have limited options available. For example:

- Where there is some time zone overlap, they may choose to finish their US equity trading earlier in the day so they can ensure their trades are confirmed and allocated early
- They may outsource the trading to a trusted counterparty; and/or
- They may have to pre-fund cash positions and/or deposit securities prior to trading.

Each of these options has inherent risks that could cause trade affirmation problems. Examples include where trades are incomplete, where these new processes impact the implementation of the most beneficial trading strategies and where they complicate and add risk to the delivery of securities.

Why is the need to pre-fund trades seen as a problem?

If a portfolio manager has to pre-fund trades, certain risks are intensified. If an investment in a different time zone needs to be sold early to facilitate the prefunding, or if a foreign exchange transaction needs to be completed ahead of time, the investor may be exposed to additional market risk as a consequence of being out of the market (or exposed to another currency that is inconsistent with the desired portfolio exposures). These unwanted exposures may last for one day or potentially longer.

For an investment manager, pre-funding may make the challenge of replicating an index benchmark more difficult. It may force trade execution away from the benchmark price (which is typically the local equity market's closing price), resulting in higher tracking error.

Is the move to T+1 a benefit to all market participants?

Whether the benefits of the shift to T+1 are outweighed by other risks of a different kind is likely to depend on the viewpoint and domicile of each market participant. It is a question that many entities will need to monitor closely as they prepare for the challenges of T+1. Other trading venues considering a similar move will need to weigh up the potential pros and cons, particularly if they are reliant on the investment flows of international participants for the efficient functioning of their market.

Are there implications for the FTSE Equity Country Classification framework?

In our Equity Country Classification (ECC) framework[3], FTSE Russell works continuously with clients to reflect the evolution of equity markets. It is important to note that the ECC framework seeks to determine the accessibility of a market from the perspective of an international institutional investor. Given that this is the accessibility lens used, the benefits of T+1 appear to be offset by several practical difficulties.

The ECC framework makes clear within its Clearing, Settlement and Custody criteria that a market should have an efficient, established and fully functional clearing and settlement process, aligned with international standards. ECC also specifies that there should be no need to pre-fund trades (or for a pre-trading check to be conducted) for non-domestic investors, and that a comprehensive Delivery versus Payment (DvP) model should be operating.

The impact of T+1 on the Equity Country Classification criteria will need additional scrutiny as the practical experience of managing the shorter settlement cycle is assessed.

What are the broader implications for index providers and index managers?

Although some indices are calculated in real time and/or intraday, many of those used as investment performance benchmarks are calculated daily. If they incorporate different global equity markets, they are usually calculated using the official closing prices from each equity market, with exchange rates taken at a single daily snapshot (4pm London time).

In turn, funds aiming to track the performance of an index have to replicate these market closing prices and FX rates. However, the replicability of regional or global benchmarks may be tested if the processing cut-off times are unattainable for index-tracking portfolio managers.

While no changes to index methodology are planned, if practical difficulties are evident, it may fall on index providers, index managers and those involved in fund valuation to find the best way to navigate the challenges of T+1, rather than expecting local financial market regulators to take index funds' interests into account.

[3] Equity Country Classification | LSEG

Can equity settlement reach T+0?

Given the challenges associated with the shortened US equity settlement cycle, it may seem implausible to imagine reducing it even further.

However, the Chinese domestic 'A' share market already operates on a T+0 settlement cycle, and India recently launched a consultation on the potential introduction of (an optional) T+0 settlement regime, which would run in parallel to the existing T+1 settlement cycle in Indian securities markets.

It is interesting that SEBI (the Securities and Exchange Board of India) recognises that not all market participants will be able to cope with the requirements of T+0, and that the potential benefits may be offset by other concerns. It is seeking additional feedback, but it already recognises that:

- Two different settlement cycles may lead to the fragmentation of liquidity and affect efficient price discovery
- It may increase the cost of trading, as funds and securities will have to be available before placing an order
- There may be price divergence in a security dependent on whether it will be settled on a T+0 basis rather than T+1
- It may result in additional market impact cost if there is a lack of liquidity

In China, it was the creation of Stock Connect in 2014 (and the settlement flexibility provided by this mechanism) that facilitated China's eventual inclusion in global equity indices. In effect, the local requirement for T+0 was circumvented, allowing international investors an operational route to participate in the Chinese equity market.

Without work-arounds that allow for a longer settlement period for non-local participants, T+0 equity settlement appears unachievable, at least currently. Any attempt to implement it is likely to have far greater negative consequences for a market, particularly those reliant on offshore participation, than the promised upsides in terms of reduced systemic and operational risks.

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