PLATO

T+1: Looking at the Bigger Picture

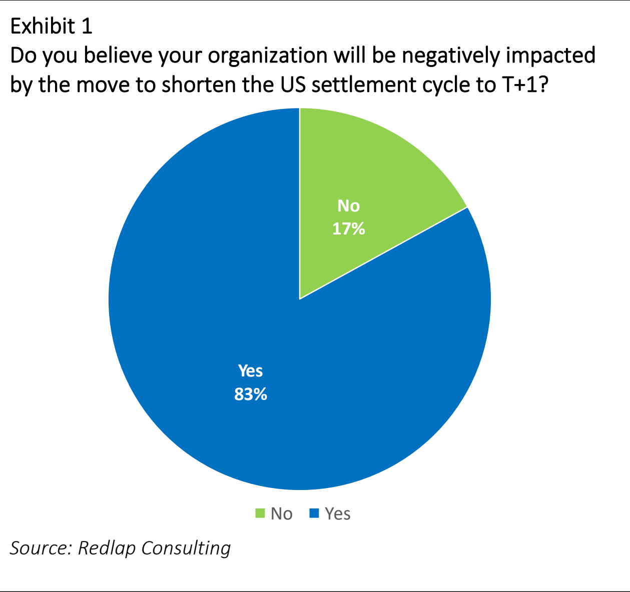
March 2023

Executive Summary

With global policy makers looking to reduce unnecessary risk and improve efficiency in Capital Markets, there is increased regulatory focus on shortening the settlement cycle. The US SEC is the latest regulator to introduce rules to move securities settlement from two business days after the trade date (T+2) to one (T+1) by May 28th 2024[1].

While certain markets already settle T+1 such as India, and markets such as China, Russia and Saudi settle T+0, the move by the SEC will reverberate across the globe given the proportion of US assets held by global funds. Regulatory improvements to policies which protect investors, reduce unnecessary risk and enhance operational efficiency through shorter settlement cycles appear a slam dunk. However, the reality is the move to T+1 will create a myriad of new challenges for non-US investors. 83% of respondents to this paper believe they will be negatively impacted by the US move which could have a knock-on impact for global markets (see Exhibit 1).

Exhibit 1
Do you believe your organization will be negatively impacted by the move to shorten the US settlement cycle to T+1?



Source: Redlap Consulting

1. Current successful trade settlement using Straight Through Processing T+1 could reverse due to the physical reduction in time to settle a trade outside of a normal working day.
2. Investment in greater automated processes and infrastructure in the full trade lifecycle to ensure a successful transition to T+1 will need to be much more complex given the multitude of peripheral activities required, such as FX and cash management.
3. There is a legitimate concern as to the impact on best execution as well as liquidity provision. The SEC's view is that a shorter settlement cycle will reduce margin and collateral requirements thereby encouraging liquidity, but as market makers now need to consider the additional costs of borrowing securities or financing in a higher interest rate environment to avoid settlement failure, the result could be wider bid-ask spreads or providers electing not to offer these services to clients at all.
4. These downside risks are likely to impact illiquid assets such as Small and Mid-caps and Exchange Traded Funds more significantly, although no asset class will be immune.

"To sum it up in one word – Nightmare. We have a global multi asset business, institutional, segregated and retail clients across multiple jurisdictions and fund structures. Even as it stands today it's a mission to manage cash flows. Moving ultimately to a T0 world is, from a risk management perspective - great, and it would be much more efficient. But only if everyone does it together."

Head of Compliance
Global Asset Manager

"There's no reason why we can't have T+1. T+1 just give you less time to investigate and clear. Hopefully it will get the brokers to match trades a lot quicker. Having the guys in the US moving to T+1 will be really helpful in moving the settlements debate forward".

Head of Operations
EU Asset Manager

It is possible to speed up post-trade matching and allocations. But looking at this in isolation will not speed up settlement of trades and achieve the

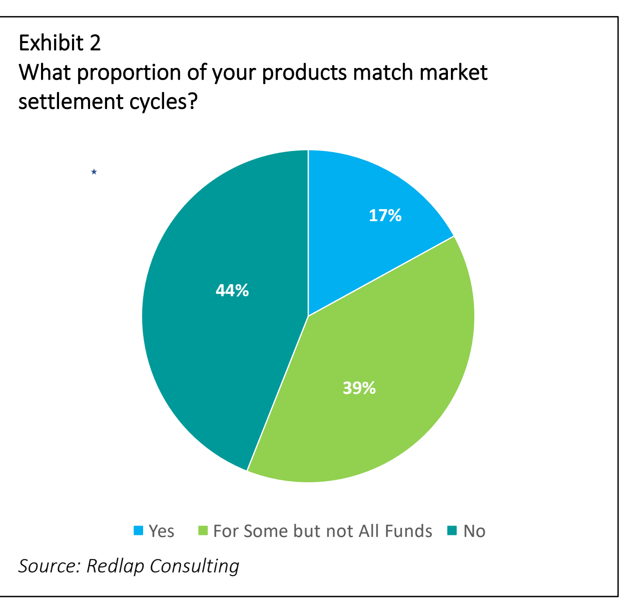
[1] https://www.sec.gov/files/34-96930-fact-sheet_0.pdf

desired outcomes of reducing counterparty risk. Wider market infrastructure challenges on the trading periphery such as FX, funding and cash management will also need to be addressed.

Trading East to West

Reconciliation and allocation already can occur on Trade date (T) with new technology able to highlight any outlying trades still to be matched. However, the follow-the-sun model means that there is very little time for certain clients to react to any outlying issues on T if the investment is made in a different location. Clients based in Asia investing in the US close typically book out trades T+1. Depending on the underlying currency of the fund, FX may then need to be sourced for settlement which can only be calculated once the trade has occurred.

Exhibit 2
What proportion of your products match market settlement cycles?



Source: Redlap Consulting

Rising interest rates are creating another challenge. European Asset managers typically only receive the cash for the investment three days after an investment is made – rather than the next day for liquid funds in the US – in effect requiring the asset manager to prefund the trade. Just 17% of respondents' fund settlement cycles currently match market settlement for all funds (see Exhibit 2). For material fund inflows and outflows this can have significant ramifications.

> *"EU funds have US exposure and US funds have European exposure; how do you get enough time to match, send the settlement instruction, give the custodian time to do the books & records, move the money and finish within a 24-hour window? The 24 hours doesn't start just from the US but where the broker, the custodian and the administrator sit".*
>
> **Head of Operations**
> **Global Asset Manager**

Even for the most straightforward of transactions, if an investment is made from a non-USD account, a non-US broker will need to settle the ADR with a US broker in USD alongside the European leg in local currency which results in multiple trades in different currencies, now with different settlement cycles.

> *"You have a UK client who wants to invest in Apple. We execute that with a local broker in the US. The retail client trades with their wealth manager in the UK in GBP – we settle GBP with the UK Wealth Manager and settle the local leg with the US broker in DTCC T+1 using USD. Then we switch the stock cross border from DTCC to CREST, once that has settled, we can make onward delivery to our client to settle GBP at the same time as doing an FX trade to balance being overdrawn in USD and up in GBP – and that's a very simplistic look at one trade for a single share of Apple – we do 1000s of these trades."*
>
> **Head of Operations**
> **UK Sell Side**

Historically, these mismatches in settlement have been managed by sell-side counterparts absorbing any additional costs. Today rising interest rates make offering this service more expensive and unattractive in terms of use of balance sheet. In isolation individual requests may be manageable, but cumulative requests create systemic financial risk particularly on high volume, high volatility trading days. Agency brokers with no internal funding will be reliant on their ability to secure credit. Principal banks may have access to balance sheet today but when the new settlement costs are allocated, in a low commission environment current business models are likely to prove unsustainable.

For asset managers operating an overdraft on the fund to manage the mismatch is also less appealing from both a regulatory as well as an economic perspective. Holding onto high levels of cash to manage inflows

and outflows limits the opportunity for performance but also risks breaching fund mandates. Either asset managers will have to fund the transactions themselves or rely on their custodians. Depending on the sophistication of the workflow processes and the geographical location of the investment versus the investor versus the custodian, this once again risks pushing settlement out to T+2.

Execution may become secondary to settlement: if a broker is not able to offer the ability to settle the trade, the option to trade with that broker may be withdrawn. Moving all US activity to a non-standard settlement cycle is not an option. Firstly, any broker willing to incur the additional costs of systematically offering non-standard settlement could be perceived as offering an incentive to trade which would not be considered "best execution". Secondly, ad-hoc non-standard settlement requires interrupting straight through processing, meaning that any automated execution methods such as algorithms and crossing networks become harder to access.

> *"Moving to a non-standard settlement cycle will affect Best Ex as you will have to hand-hold the trade with the broker. We won't be able to use algos and crossing networks due to their automated processes, making our Best Ex toolbox virtually empty."*
>
> **Head of Compliance**
> **Global Asset Manager**

> *"Then there is Best Ex. Trading my FX post the US Close might not be the right time to trade".*
>
> **Head of Operations**
> **Global Asset Manager**

> *"If the broker can't match same day, we won't be able to trade with you – regardless of Best Ex."*
>
> **Head of Operations**
> **Global Asset Manager**

The ETF Elephant

Aside from the complex challenges cross border activity will face, the situation will become significantly exacerbated when trading global portfolios across asset classes such as trading Exchange Traded Funds (ETFs). Current settlement rates for ETFs with underlying securities from multiple jurisdictions are already lower than industry averages due to complexity, time zone differences and any geographical difference in trade date/market holidays. These current delays are likely to be amplified by a move to T+1, with US ETFs requiring settlement of the underlying irrespective of the geographic location.

While the SEC recognises settling trades in US listed ETFs with baskets that contain foreign securities may become more costly under T+1 settlement, the belief is that moving to T+1 will reduce some costs such as margin charges which will offset any additional costs. However, if accurate and timely settlement becomes more problematic and expensive, the appetite to offer inventory, particularly in less liquid assets, will become significantly more challenging, leading brokers to pass on these costs through wider spreads.

> *"There's no liquidity on the screen. 75% of all our ETF volume last year was traded RFQ using APs who have to hedge in a much steeper interest rate environment, so the costs will be magnified. In fixed income it's a much bigger problem because the lending markets are not nearly as established as the equity market. One option is to run higher cash balances and suffer the drag, but that's detrimental to the end investor."*
>
> **Head of Trading**
> **UK based Asset Manager**

> *"It's not that the SEC decision is wrong per se, it's just that global markets are not ready for this level of change and the wider consequences of the action have not been thought through. The impact on ETF liquidity in Europe will result in forcing Global Baskets to settle T0 to consider Asian trading hours. This is not just settling US transactions for US investors and US domestic funds."*
>
> **Head of Trading**
> **Global Asset Manager**

For example, US exposures such as S&P500 can already match T+1 on ETF Primary Markets. However, ETF Creates in the secondary market settle T+2 to lower the cost of carrying inventory. Brokers currently manage the discrepancy on the US underlying and this cost is rising in a higher rate environment. While there are acknowledged

benefits in terms of collateral requirements and margin requirements, this will not be a net positive in the longer term due to balance sheet consumption.

In addition, for Europe, it is not just a question of cost. MSCI World Global baskets which contain US securities settling T+1 and non-US securities settling T+2 plus can no longer be handled systematically. A decision will need to be taken as to whether the ETF is sold T+1 to match with the US or T+2 to remain in line with the rest of the basket. This will create credit or debit positions which could incur regulatory breaches for UCITs funds. Secondly for creates of Global ETFs, any Asian trades of significant size are executed T+1 to meet T+2 settlement. To move this forward by 24 hours requires settling the shares T+0 rather than T+1. None of the major transfer agents are in a position to do that in any scale today.

> *"Ultimately, the US move to T+1 will lead to additional costs that investors will end up paying for, ironically the exact opposite of the purpose of the SEC regulation."*
>
> **Global Head of Capital Markets**
> **Global Asset Manager**

> *"The move to T+1 is a barrier to entry for smaller funds. It's anti-competitive because if you're small, you can't necessarily get a credit line. We've had to take the decision to delay trading by a day, which negatively impacts the client. We all know we have to address the cash subscription issue to match the market settlement cycle, but no-one wants to move first. If somebody's switching funds, and they're redeeming on a T+3 basis, they want to fund it on a T+3 basis.."*
>
> **Head of Trading**
> **UK based Asset Manager**

> *"In Europe you're managing a balance mismatch which effectively puts your firm at risk. Your broker used to manage that risk through extended settlement/balance sheet, etc. But this is not as easily available which means you have to take it on your books, and it's you manage this without hitting the 10% threshold or overdraft. If you're having to readjust global portfolios on an ongoing basis, it's laborious and expensive."*
>
> **Head of Trading**
> **European Asset Manager**

Seeing the Bigger Picture

Shrinking margins mean few asset managers can bear the additional costs. The smaller and more specialised the fund, the more acutely the T+1 challenge is felt, creating a barrier to entry and risking constraining creation of funds to main index liquid names only. Firms will be faced with looking for alternatives such as holding off investment until the cash is received with the downside of performance drift if the market moves; or investing in alternatives to gain interim exposure which although reduces the cost (posting of margin) still incurs additional frictional costs. Not all funds have mandates permitting the use of derivatives as an interim measure to gain performance exposure which would require substantial changes to current mandates.

Encouraging the industry to move away from long-only investment in securities seems counterintuitive to supporting growth of the capital markets. Yet is clear the SEC sees T+1 as an interim measure in identifying potential paths to T+0. While the industry is little prepared for T+1, let alone T+0, the perceived attractiveness of trading new assets such as crypto with a shortened settlement cycle is a further drive for regulators to ensure traditional asset classes are equally attractive, alongside the reduction in counterparty risk.

With rising liquidity concerns, costly changes to fund mandates and product suitability up for re- evaluation rather than reducing choice and lowering the opportunity for performance for end investors, the industry will need to address the challenge of T+1 head on. Many improvements have already been made to standardise post-trading activity with real-time FIX messaging for trade allocations, netting, Standard Settlement Instructions, and now stock loan, repo and collateral management. However now the wider challenges of FX and cash management also need to be addressed before the market is ready to shorten the settlement cycle further. To understand the full picture of the issues involved and what can be done to as embrace the opportunities as the industry inevitably moves to reduced settlement cycles across the globe, we spoke to 40 market participants - Heads of Trading, Operations and Settlements on the buy and sell side and custodians during the end of 2022 to February 2023.

Key Facts

1. **83%** of respondents believe they will be negatively impacted by the US moving settlement to T+1.

2. With the SEC citing T+1 as an important marker in the move to T0, **75%** of respondents believed that wholesale change in fund management would be required before the industry could successfully move to shorter settlement cycles.

3. Just **17%** of responding firms' products match current market settlement cycles for all funds which in an environment of rising interest rates is raising significant cash management challenges.

4. **96%** state current equity settlement failures are due to inventory issues which speeding up post trade allocations alone will not resolve.

5. For **88%** of respondents' equity settlement rates are currently higher than 95%.

6. With trade matching the first key step in successful settlement, nearly **three quarters of respondents** cited the reduction in time to match as their main concern in moving settlement to T+1.

7. Use of Fund Overdrafts and Extended Settlement services are increasingly in decline. Less than a quarter of respondents use Extended Settlement for large inflows and **57%** now use this in exceptional circumstances only.

8. **43%** of respondents rely on holding cash in portfolios to manage FX positioning and settlement cycles which impacts performance in not being able to put client's money to work immediately.

9. Rather than speeding up post trade automation, **half of the respondents** cited improvements to cash management as their greatest area of focus in meeting T+1.

10. The industry remains unprepared for the wider consequences of a move to T+1, only **39%** of responding firms underway with T+1 project plans and budgets.

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The Benefits

There are undisputable advantages in reducing the time taken to settle trades from a risk mitigation perspective. Recent black swan events have highlighted the impact of non-settlement of trades. Improving the post trade process through greater automation is viewed as key to enhancing operational and capital efficiency.

However, after the meme stock crisis in January 2021, the SEC's decision to reduce the time between trading and settlement is not just to reduce risk but also to enhance investor confidence by enabling market participants to put their money to work faster as well as access their proceeds sooner. With the ability to trade alternative asset classes such as Crypto which some exchanges settle immediately, policy makers are keen to ensure that traditional asset classes to remain as attractive to end investors.

In addition, by reducing the overall size of the financial resources that a clearing counterparty (CCP) requires of its participants, intraday margin calls and collateral requirements will reduce by 41%[2] according to the DTCC, which the SEC believes will improve overall market liquidity and presumably encourage greater activity.

For US investors trading US assets in USD there is little to argue against a move to T+1. However, for non-US investors there are significant differences in what is required to settle a trade.

Interestingly a large proportion of the SEC report is dedicated to timely confirmations, the first point in ensuring swift settlement of trades – *"The final rules will require a broker-dealer … to ensure the completion of allocations, confirmations, and* ***affirmations as soon as technologically practicable and no later than the end of trade date***[3]*"*. The SEC rules also include a new requirement for straight-thorough-processing clearing services. Under MiFID II/MiFIR asset managers in scope already have had to make significant investment in mid and back-office systems to ensure receipt of timely confirmation and trade allocation. Some asset managers still have trouble in receiving confirmation of trades on

"As an industry we absolutely should be working to move to T+1. There will be unforeseen circumstances but unless the regulation forces change, we will never prepare for it whether you do it this year, next year or the year after that. Otherwise, you will need to build additional processes, controls and costs to accommodate a fragmented settlement cycle."

Head of Operations
European Sell Side

"From an end investor perspective, it would be a fairer system if it was T1. If you want to put your money to work, you're not waiting three days".

Global Head of Trading
UK Based Asset Manager

"If you are a US investor trading US asset in USD moving to T+1 is a clear advantage. But if you are a SWF based in Asia with 5 investment managers based around the global trading in currencies other than USD – the operational complexity is a nightmare as the industry is set up currently".

Head of Custody Solutions
Global Custodian

"End of day matches stand at 99% for equities. There is just a tail of clients that either don't have a US office to release the blocks or they are late because they are still operating a manual system. Any fails are either due to inventory management or the need to set up new accounts using manual processes. If you have 50 new accounts to allocate on T0 and its all manual – that's a big problem because if you can't allocate, you can't confirm. If you can't confirm, you can't get it to the custodian."

Head of Operations

"US brokers are very bad at embracing technology, if you look at our stats, the majority of unmatched trades end of day, 90% - are US."

Head of Operations
Global Asset Manager

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[2] https://www.dtcc.com/news/2021/february/24/dtcc-proposes-approach-to-shortening-us-settlement-cycle-to-T+1-within-two-years

[3] https://www.sec.gov/files/34-96930-fact-sheet_0.pdf

same day in the US, particularly from smaller local brokers. Without the first trade confirmation, no further action can be taken to book, allocate or settle a transaction, move cash or arrange any necessary FX.

The Problems to Solve

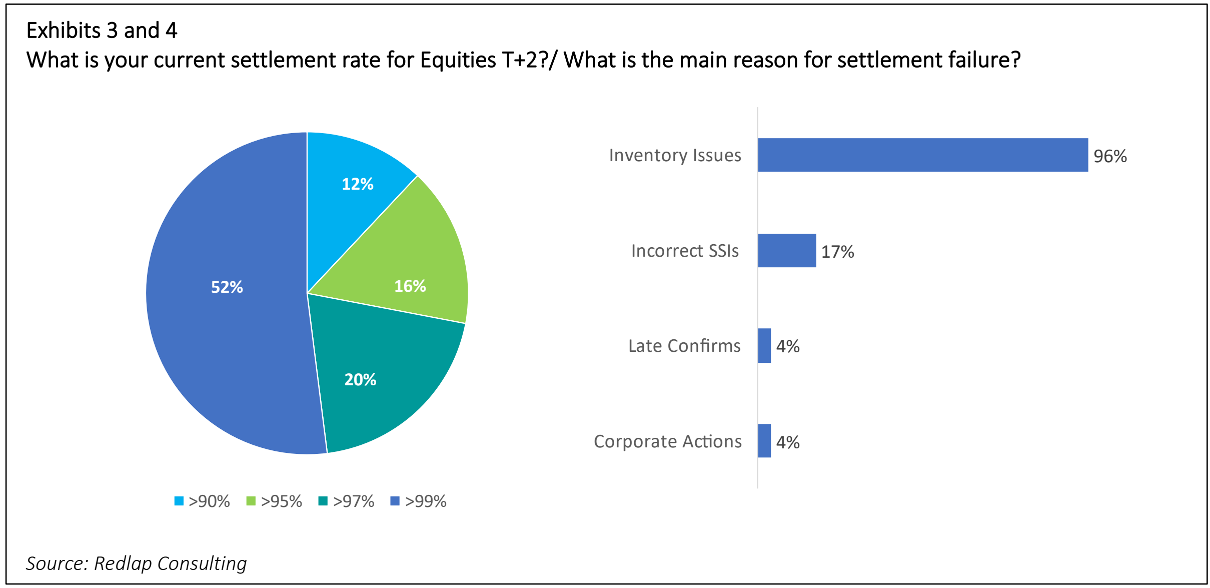
Improving timely confirmation, allocation and booking of trades is feasible; and enhancing delivery of FX should be possible given the ability to trade FX real-time; but the greater challenge is the reduction in the physical time necessary to deliver the operational jigsaw necessary across multiple time zones, currencies and fund structures. The more trades fall out of Straight Through Processing (STP) workflows, the greater the reliance on human manual intervention which, due to the sheer volume of trading activity, will inevitably delay settlement processes further and ultimately increase the cost of trading.

> *"Moving to T+1 will reduce the number of trades that can go STP. You can have blocks that consist of over 1000 allocations, and anytime that we're touching a trade we are stopping the STP."*
>
> **Head of Operations**
> **US Asset Manager**

> *"Since CSDR in Europe, 99.9% of trades are matched on T0 – the problem area is the US. By the time the confirms have been sent, we have gone home and have to wait until T+1 2pm our time to get anything resolved."*
>
> **Head of Operations**
> **EU Asset Manager**

Due to the necessary level of automation introduced to meet CSDR in Europe, current settlement in equities for the vast majority of respondents is excess of 95% (see Exhibit 3). The question becomes, what further benefit can be gained by moving from T+2 to T+1 if this increases the risk of settlement failures. Particularly when considering what additional post trade activity needs to take place when settling US securities internationally often in other time zones. Some asset managers outside of the US are looking to ensure they have a local operational presence to manage the time difference between investor and trading locations. For smaller asset managers, this is harder to achieve given the resources required. Given the move to improving health and wellbeing, introducing shift work is not a viable solution for asset managers looking to attract and retain staff.

Exhibits 3 and 4
What is your current settlement rate for Equities T+2?/ What is the main reason for settlement failure?



Source: Redlap Consulting

> *"We will be able to manage as we have made an investment in setting up an Operations team in the US – but that's not available to everyone – what do they do? No-one wants to work shifts until midnight – and that's in Europe – what about Asia?"*
>
> **Head of Operations**
> **UK based Asset Manager**

The Real Reason Trades Fail

While a US-based operations team can help chase US brokers to produce timely confirms to match, this is still no guarantee in being able to settle a trade. Broker shorts and lack of inventory are still widely seen as the main reason for settlement failure (see Exhibit 4); nor will a local operations team be able to resolve FX or funding issues if the counterparts they need to engage with are based outside of the US.

> *"97 to 99% of our trades settle on time with 10 staff because we are fully automated. But that is with two days to solve short sales, sec lending, corporate actions, those are the trades that don't settle on time."*
>
> **Head of Operations**
> **Global Asset Manager**

> *"The main reason trades fail is inventory. And there is nothing we can do about that. We have no idea until we go to settle, whether the custodian has loaned out the stock. And the recall process is 48 hours minimum."*
>
> **Head of Operations**
> **Global Asset Manager**

Manual Post Trade Processes

Workflows are improving through the use of greater standardisation in the netting and allocating of trades as well as automated alerts for outlier trades to be addressed. However, this has yet to extend to stock loan, although there is work currently underway within the FIX Post Trade Working Group to address this. Currently, in the US, buy-ins operate on a T+1/0 basis, whereas the standard securities lending contract in Europe is a minimum of 48 hours, making it impossible to arrange the return of lent assets without being in breach of timely settlement. The removal of the buy-in mandate from CSDR regulation means it may be less costly for brokers to fail trades than attempt to borrow to settle on time.

While the inability to deliver inventory was cited as the main reason for trade failure, another reason cited was the challenges in updating data such as new settlement instructions (SSIs). Due to the rise in offshoring by global investment banks, departments responsible for static data maintenance are often in a different time zone and only offer a generic email address meaning it is difficult to "jump the queue" with an urgent request.

> *"To get any static data changed, you have to find the right team, get someone on that team to understand the importance of getting the instruction changed in the timeline – 9 times out of 10 it's just a generic email address which is useless."*
>
> **Head of Operations**
> **UK based Asset Manager**

> *"Trading LatAm at the US Close only offers a 15-minute window to settle T+1 which means you are effectively looking for FX after-market hours. For anything outside of G7 – that's a nightmare".*
>
> **Head of Trading**
> **UK based Asset Manager**

FX Complications

The SEC ruling includes an exemption for security-based swaps under paragraph (a) of Rule 15c6-1 due to the necessary time taken to settle such trades, however neither ADRs nor ETFs will be exempted from the T+1 ruling given the ability for market participants to borrow any underlying securities required, extend the closing time for their FX trading desks or opt to pre-fund a transaction.

> *"There can be a substantial time lag between trade execution and auto FX which pushes the transaction out to T+1. That trade then has to move from OMGEO to the global and then local custodians who needs to put instructions and match in the market. You expect your custodian to align your FX so that you're not borrowing the settlement currency overnight. It doesn't impact the physical settlement in the market but it affects the books and records. At the end of the day it incurs costs."*
>
> **Head of Operations**
> **European Asset Manager**

However, asset managers are only likely to know their FX requirement once they have traded and received the confirm. While having a local settlements team provides more time for this to take place, it then depends on the level of sophistication of the custodian's auto FX workflow processes whether the

trade is executed end of day or next day. In reality this means most custodians' FX provision occurs on a T+1 basis which can have further ramifications when trading into a weekend or ahead of a market holiday.

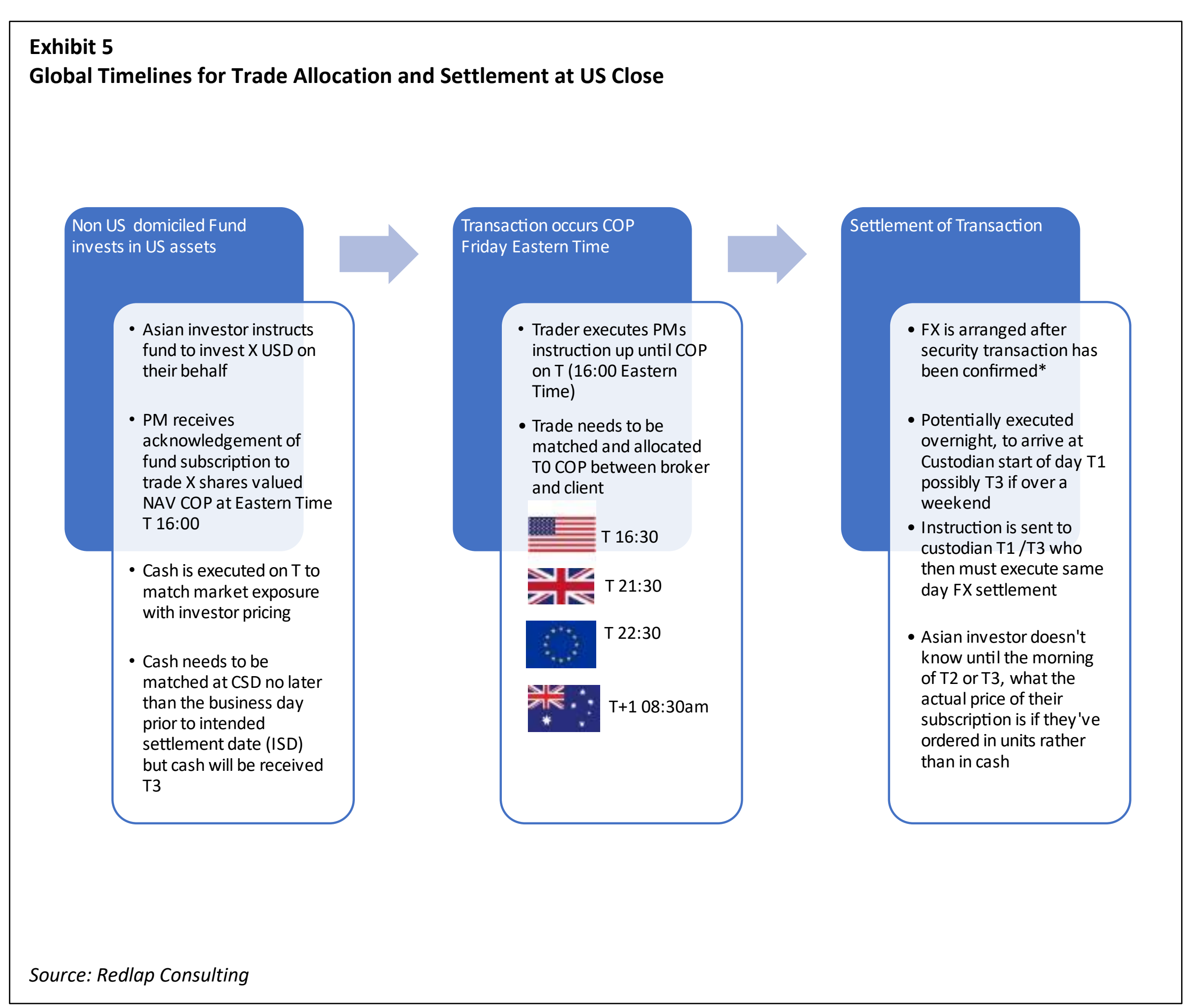
For example, Australian clients looking to invest in the US may trade up to the close and would then need to arrange the FX at 16:30 Eastern which would be 08:30am the following day in Sydney. Theoretically this would give them a head-start on a client based in the UK or Europe who would be unlikely to be in the office until the following morning - 21:30 and 22:30 respectively (see Exhibit 5). However, if the trade was being executed into the close on Friday in the US, all three locations would need to wait until Monday to complete the trade, making the arrangement of FX, matching, allocation and settlement now T+3 rather than T+1. This would also be the case if trading occurred during a market holiday in the investor's local market which would necessitate the broker to step in and fund the FX leg on behalf of the client in order for the trade to settle.

> *"If you are a UK or EU manager and you have £ to buy an EU asset - you only know the FX when you have moved the settlement amount. You can trade Spot on T but its much more pressured, there is less of a time gap to resolve issues or problems."*
>
> **Head of Trading**
> **Global Asset Manager**

> *"What happens if you are trading into the close on a holiday weekend – executing a trade when you know it's going to fail is surely in breach of Best Ex?"*
>
> **Head of Trading**
> **Global Asset Manager**

> *"Look at the FX vol now. It's just crazy. Look at GBP, we've gone from what 1.03 and 1.27 in an 18-month span. It's just insane."*
>
> **Head of Operations**
> **Global Asset Manager**

Exhibit 5
Global Timelines for Trade Allocation and Settlement at US Close



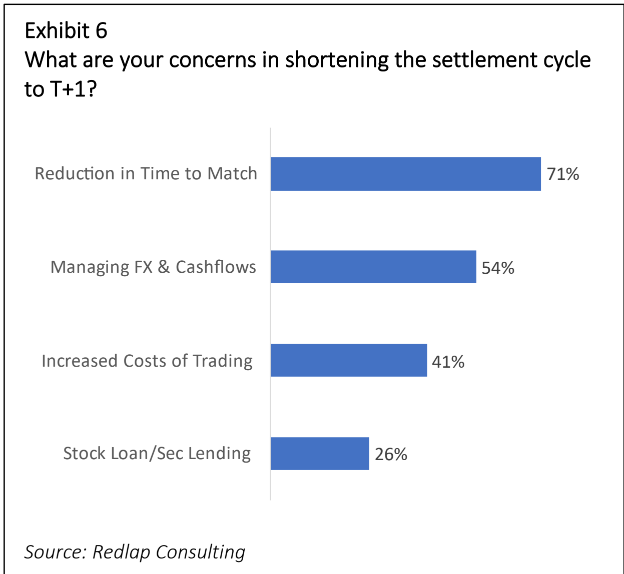
Source: Redlap Consulting

As FX is required for cross currency trades funding issues can quickly ramp up due to different settlement cycles, for example buying US T+1 and needing to sell UK/Europe T+2 to fund the position. Any lag in trading versus having to complete the FX transaction can add to the cost of trading, add in currency volatility and this can rapidly become an expensive addition to execution costs. As brokers still need to fund the transaction even though the clients do not settle on time, funding costs and buy-in costs are likely to jump, particularly given Europe operates a T+2 buy-in window at a minimum. There are options for asset managers to address this including:

- **Trading FX direct intraday**, which requires staff, expertise, sufficient cash balance and time and resources to manage.
- **Holding a multiple currency slush fund**, which reduces a manager's ability to put a client's money to work and ties up valuable resources. Holding cash balances in different currencies is not attractive from a performance perspective in a highly competitive market.
- **Use of a custodian's multiple slush fund,** which is contingent on what custody services a manager is able to access, which is often a factor of their AUM.

Matching vs Settling Trades

The greatest concern for respondents in meeting T+1 was the reduction in time to match trades (see Exhibit 6). Only once the FX is completed, trades can be matched; then booking needs to occur before settlement which in today's global market can mean a significant number of multiple allocations across multiple jurisdictions.



Source: Redlap Consulting

> *"The majority of clients do end of day netting which creates a bottleneck – you can't run that many nets all in one go – which means there is literally not enough time for your end of day processes to run before close of play on T"*
>
> **Head of Operations**
> **European Asset Manager**

If an Asian client trading in the US must provide the broker and custodian with allocations prior to US market close on trade date, this will only be possible with a local presence. There is the option to pre-allocate but this may not always be possible, for example if the order is only partially filled. Similarly, a US client with a European or Asian custodian will have difficulty instructing on time. From a broker's perspective the questions arise over end-of-day netting which can create a bottleneck in dealing with multiple client allocations ahead of overnight batch settlement, which the ECB estimates equates to 52.63% of overall trading volume[4]. AFME cites that moving from T+2 to T+1 would leave European settlements teams 2 business hours between the end of the trading window and the start of the settlement window, compared to 12 business hours in a T+2 environment[5].

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[4] https://www.ecb.europa.eu/paym/intro/publications/pdf/ecb.targetsecar202205.en.pdf

[5] https://www.afme.eu/Publications/Reports/Details/detail/T+1-Settlement-in-Europe--Potential-Benefits-and--Challenges

The Indian Example

The reduction in time across multiple time zones constrains the ability to operate an STP model efficiently due needing to increase the number of manual interventions. The recent move by India to T+1 is a case in point. Currently brokers are managing this process on behalf of their clients given the small number of investments made. However, brokers' funding capabilities are finite, and therefore trading in certain markets may become curtailed by brokers or restricted for clients to avoid more systemic liquidity issues, particularly during times of market volatility, index rebalancing or holiday periods. For example, trades in India now need to be confirmed by custodians on exchange by 7:30 a.m. IST on T+1 (see Exhibit 7). This is translating to a Custodian cut off time of ranging between 3:30am and 6am IST on T+1 to match trades and allocations in order to give the Custodians time to execute the necessary FX trades to make the market deadline of 7:30am.

> *"In India, we need to prefund buys which requires access to the FX market to fund the buys. When India is T2 you have a day to resolve any issues which you lose moving to T1 and we will need to sort funding T0 when the settled cash is T4. In addition, the custodians cut off time is before the FX market opens. They originally requested that any FX instructions be sent to them half an hour before Indian market close on T so Indian market closes at 3.30pm local time. They were asking that the instructions be sent to them by 3pm. This has now changed so that we can actually send an FX extra instruction at 4.30pm UK. "*
>
> **Head of Operations**
> **UK Based Asset Manager**

Exhibit 7
The Indian Example

Location	Trading US Close	Time Available to Match & Allocate	Time for Trade to reach Custodian	Exchange cut-off Time (OTR)
	Time Transaction Executed	2.5 hours for trade allocations to be matched in CTM including Quantity, Price and Account names/ Alert codes	1.5 hours for Custodians to execute necessary FX ahead of market deadline	Trade Settlement
	03:00 T+1	03:30-06:00 T+1	06:00-07:30 T+1	07:30 T+1
	16:30 T	17:00-19:30 T	19:30-21:00 T	21:00 T
	21:30 T	22:00-00:30 T-T+1	00:30-02:00 T+1	02:00 T+1
	22:30 T	23:00-01:30 T-T+1	01:30-03:00 T+1	03:00 T+1
	08:30 T+1	09:00-11:30 T+1	11:30-13:00 T+1	13:00 T+1

Source: Redlap Consulting

The new timelines mean that for a European based investor with no Asian based Operations, trades need to be matched and confirmed on T+0 – this becomes even tighter for a US based investor as they will need someone awake during Asian or European hours to ensure any issues are monitored

and resolved before the deadline. Deadlines can be further impacted by non-INR currency holidays. If an auto FX is in place, this can only be executed on dates when the non-INR currency is open to facilitate the credit line. Managers need to monitor INR trading holidays, individual custodian cut-offs and funding requirements, non-INR holidays as well as potential buy in risk. Supporting clients to manage this process for one emerging market is feasible but add this to the largest invested global economy is likely to have significant ramifications.

In addition, for many participants Indian trade settlement is operating successfully as most of the activity between the different stakeholders – broker, custodian and clearer - takes place in one time zone. If this is not the case, the time difference works in favour of settlement east to west as there is additional time to resolve any discrepancies between the broker matching and the custodian receiving the instructions. The reverse West to East creates challenges given that by the time a trade is matched ready for settlement in the US market, the local market is closed. Successful settlement is feasible across multiple time zones with full STP, but once any manual intervention is required, the challenges re-emerge.

The SEC states that market participants will be able to adjust their business practices to address any challenges associated with the misalignment of T+1 settlement cycle for US securities with T+2 for FX by allow parties to extend settlement in a similar manner to how the US Treasury market operates today (T+1). While funding options may be feasible on an individual intermittent trade basis, the cumulative factor of all assets in a rising interest rate environment is likely to increase funding costs prohibitively, particularly for rebalances and high-volume days, which could inadvertently add systemic risk into the market.

"The knock-on effect of this model when applied to US T+1 is an EMEA based investor investing in the US ideally needs Operations personnel in an Asian or US time zone in order to resolve and mismatches and instruct FX (or ensure everything matches for auto-FX) in a timely manner. The situation is slightly less stressful when G10 currencies are involved as FX pricing is generally available 24 hours, but many EM currencies do not have 24 hour trading windows which restricts funding ability even further. This can be especially problematic when currency holidays are in play. "

Head of Trading
UK Based Asset Manager

"Why is India working? Where's the broker? Where's the custodian? Where's the administrator? They are all in India. My biggest challenge is trading US names for a Lux fund, end of day US time. You need to match and have settlement instructions out the same day, irrespective of volume, to the custodian in one region, and the administrator in another to reconcile. It's all STP. As soon as the trade is complete – its booked in the OMS, into CMS, the SSIs are released and then technically its ready to settle T+1. But if the broker is in India and the Custodian is in Europe, India has already closed by the time you finished and now you're into the next day. "

Head of Operations
Global Asset Manager

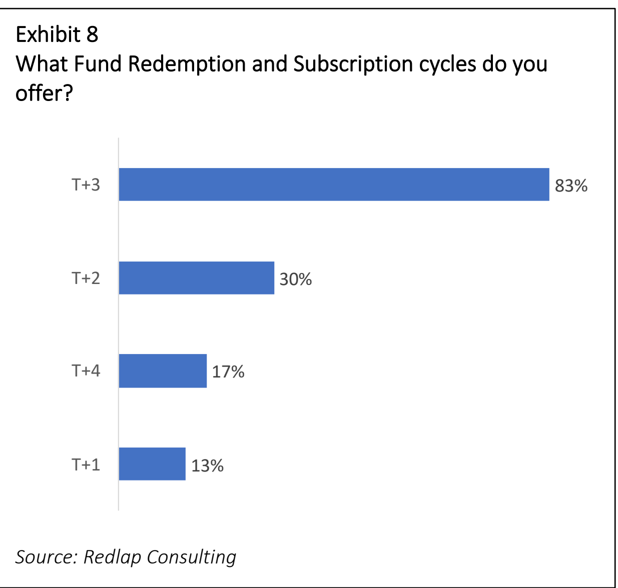
"Already we have 25% of trade allocations not matching in CTM in time to meet the 7am cut off – what happens when this is expanded globally?"

Head of Operations
Global Sell-Side

The Wider Funding Challenge

Even if all firms were able to update their middle and back-office systems with automated FX and CTM with full STP to ensure majority settlement this still would not solve one of the critical issues facing asset managers outside of the US today. The majority of respondent products do not match market settlement creating a timing challenge between when investors subscribe or redeem (see Exhibit 8).

Exhibit 8
What Fund Redemption and Subscription cycles do you offer?



Source: Redlap Consulting

This is further complicated when considering when the trade is priced, when the investor is notified and when they need to settle, depending on the domicile and structure of the individual (see Exhibit 9). If the fund subscription is in units rather than a monetary amount, then the subscription calculation has to be made based on a NAV before the portfolio manager can invest in the fund on behalf of the investor. For example, British Open-Ended Investment Companies (OEICs) are UK investment

"Ozzie unit trust redemption cycles are T+4 which creates cash flow issues for us between settled cash and actual cash."

Head of Operations
UK based Asset Manager

Exhibit 9
Level of Complexity of Peripheral Fund Activity for US & Non-US Based Investors and Assets

	Easy	Harder	Difficult
Assets	US Based	Global	Units
Investors	US Based	Non-US Based	Non- US Based
Domicile of Fund	US Based	Non-US Based	Non- US Based
Pricing of Fund	EOD 4pm Eastern	Morning of T+1 based on previous close of T	NAV calculated on previous Close
Distribution of Contract Notes	EOD 4pm Eastern	EOD T+1 for EU Start of T+2 for APAC	EOD T+1 for EU Start of T+2 for APAC
Settlement Cycle	Already aligned to NSCC or DTCC settlement cycle	T+2	T+2
FX Requirement	None – USD Base Currency	Could be USD or Non-USD depending on level of US Assets in Fund which requires FX transactions to be undertaken in line with	Could be USD or Non-USD depending on level of US Assets in Fund which requires FX transactions to be undertaken in line with market trades. NAV calculation can also differ

funds similar to open-ended mutual funds in the US[6]. Many US investment companies offer OEICs to UK investors.

If the asset manager is putting the investment to work in a market that matches T+1, this conflicts with when the funds are received – T+3 or T+4, depending on the time of day the investment calculation was made. With the majority of European funds operating a T+3 or T+4 cycle, this creates a significant challenge for cash management to rebalances and recalculations on the day of execution versus when the initial NAV calculation was made.

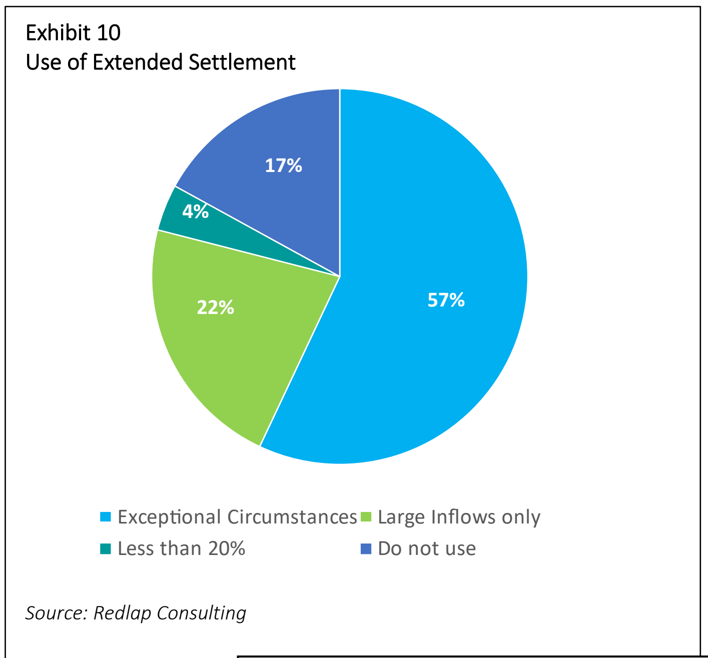
> *"If the investor is interested in buying 100 shares, there's a NAV calculation to say it's going to be 105 USD. The US domiciled fund will use a New York cut off for pricing. From a EU perspective, those calculations happen morning of T+1, when contract notes go out to investors. Hong Kong is already asleep – so wake up the morning of T+2 to find out what needs to be paid. Funding and FX then needs to be arranged to pay the transfer agent for the purchase of those of those shares."*
>
> **Head of Operations**
> **European Asset Manager**

Addressing the Mismatch

Extended Settlement

Historically the differing market and cash settlement cycles have been managed by either utilising extended settlement or fund overdrafts both of which are becoming more costly to arrange due to the global cost of funding increasing.

Exhibit 10
Use of Extended Settlement



Source: Redlap Consulting

Most respondents now use Extended Settlement for exceptional circumstances only (see Exhibit 10). For example, to avoid Client Money and Assets (CASS) breaches in the UK,[7] a PM would regulate the cash settlement cycle with the trade settlement cycle – SICAVs (société d'investissement à capital variable)[8] and OIECs which settle T+3 - to compensate, otherwise it potentially could be seen as an inducement. This leaves the use of fund overdrafts which also now need to be considered carefully within the inducement's framework.

> *"When we have large flows, to avoid cash breaches, to avoid regulatory breaches around cash levels, settlement is extended. The trade cycle matches the cash cycle T3. If we've got more than a current 20% flow, we trade down in the market and compensate the market for the funding costs for doing so. Because it could in theory be considered an inducement.."*
>
> **Head of Trading**
> **UK Based Asset Manager**

---

[6] An OEIC is structured as a company to diversify investment through multiple assets with different types of investment strategies that can be adjusted. OEIC shares do not trade on the exchange; rather the price of the shares is based largely on the underlying assets of the fund and set once a day based on the net asset value of the portfolio versus unit trusts which have bid and offer prices which can be used to purchase or sell fund units. OEICs are "open-ended" because they can create new shares to meet investor demand or cancel shares when investors exit the fund.

[7] https://www.handbook.fca.org.uk/handbook/CASS/Sch/2/2.html

[8] https://www.amf-france.org/fr/espace-epargnants/comprendre-les-produits-financiers/placements-collectifs/ce-quil-faut-savoir-sur-les-placements-collectifs-fonds-et-sicav

Fund Overdrafts

Depending on the client mandate, overdrafts can be deemed to be inadvertent breach and if fund overdrafts are permitted, this also has to be within the 10% borrowing rule under UCITS[9], or risks a further potential regulatory breach.

For funds that prohibit the use of a fund overdraft, an overnight funding facility can be used instead. This is feasible when managing fund subscriptions because the PM can leave the money sitting in cash and the fund may be able to hold a certain percentage in cash before the investment is made. But if the investment requires buying units of a fund, and the NAV has to be calculated at the end of T with the cash only being received T+3 or later, meaning there may be a disconnect between the NAV calculation and what the investment is on trade date.

An Asian investor investing in US assets where the fund NAV is priced at the US Close will only know what their investment needs to be the following day, which means holding cash to delay investment and possibly incurring performance drift in the meantime.

All of the above can be managed provided it is not a material subscription, as the majority of funds hold a cash element within their portfolios to manage the FX differentials. The challenge arises when there is a significant subscription and in volatile or high-volume days which prevent accurate estimations of what is required to prefund a transaction. The shorter the timeline there is to deliver what is required accentuates the risk of error. All of which necessitates clearly understanding the structure of a fund ahead of placing any trades.

> *"We typically don't do extended settlement anymore. it's a dying art because Brokers don't really want to do it and if they do, we're seeing a cost allocated against us because of their own requirements."*
>
> **Head of Operations**
> **Global Asset Manager**

> *"It's not seen in a good light if you're regularly using your overdraft to manage your cash flows. You may not have a cash flow within your fund depending on the fund mandate, leading to conversations around the products that we're investing in? So does the funds mandate need to change so that we can use more derivative products to only have to post margin. Or if you're trading a global portfolio. You'll trade those settled T two first, and then you'll hold the T1 so that everything settles at the same time."*
>
> **Head of Trading**
> **UK Based Asset Manager**

> *"How can you effectively price your funds if you're moving your pricing from COB business in the markets that you invest in, to earlier in the day so that you can meet any subscriptions/ redemptions by making sure you have the cash to fund your T+1 needs. This creates huge operational requirements".*
>
> **Head of Operations**
> **European Asset Manager**

[9] Regulation 103(3) of the UCITS Regulations provides inter alia that a UCITS may borrow not more than 10% of its assets.

Implications for ETFs

While any cross-border activity will be impacted by the move to T+1, the significant rise in ETF activity over the last few years would suggest the need for urgent action by regulators to address the operational challenges the US move to T+1 will represent. ETFs now represent 12.6% of equity assets in the US, 7.5% in Europe, and 3.9% in Asia-Pacific[10]. ETF trading volumes in 2022 were the highest on record, with over $53 trillion traded (compared with $41 trillion in 2021. Market share is smaller in fixed income but rising, ETFs currently account for 2.5% of fixed income assets in the US, 1.6% in Europe, and 0.3% in Asia-Pacific[11].

Matching rates can be improved, and exception resolution can be accelerated to address issues more promptly thereby reducing the risk of settlement failures. Automated post trade systems can be incorporated into workflows covering securities lending, cash and collateral management, corporate actions and reference data – but for ETFs the key concern is the necessary impact on the creation and redemption of ETFs. The impact on trading workflows, costs and liquidity along with regulatory breaches are significant.

The SEC acknowledge that settling trades in US-listed ETFs with baskets that contain foreign securities may become more costly due to misalignment between the settlement cycle for US activity vs. the underlying foreign securities necessitating the need to post collateral or establish credit lines. However, its belief is that any additional costs will be offset by the reduction in other costs such as margin charges over shorter timeframes.

In resolving the issue of fixed income liquidity in particular, the SEC is of the view that as market participants can either purchase or borrow bonds sufficiently ahead market transaction, or agree to a settlement date that is later than T+1 *"it does not necessarily follow that any prospective misalignment of settlement cycles would result in either increased fails in the US market overall, or a reduction in the amount of liquidity available to US investors*".

However, liquidity in the European ETF market is already hampered by the number of different markets, currencies and CCPs relative to the US. But the removal of the SEC

"If an EMEA client is selling a mutual fund T3 and buying an ETF, which has a standard settlement cycle of T+2, they may ask their broker to extend settlement to T3 on the ETF. However, the primary market ETF trade will still settle T+2, meaning the broker may have to fund the position for a day. If the ETF settlement cycle moves to T+1 there could be additional funding considerations for brokers."

ETF Capital Markets Specialist
Global Asset Manager

"The environment for the sell-side now is dire - PB costs are going off on the long side, but they're also getting more fines for the CSDR regime on the short side. With the cost of long natural inventory for ETFs only increasing, this would put an additional burden on that process."

Head of ETF
Global Asset Manager

"We have baskets of global stocks benchmarked against the NASDAQ 100 – we trade the US ETF and the UCITS EU ETF together – does that mean we now need to carve out those that settle T+1 vs T+2? Different settlement cycles might also lead to different prices – how is that treating end investors fairly? If the wrapper level is set at T+1, but the basket underlying is T+2, you need to make collateral calls for the entire notional of the trade plus the haircut."

Head of ETF
Global Asset Manager

"ETF settlement is not great because it's very fragmented market. Our NASDAQ 100 ETF has 5 different share classes and 15 different versions of that one fund in EMEA because you have your GBP or Swiss Franc or EURO, listed on the LSE, Deutsche Borse Xetra, or Tel Aviv etc – all of this creates additional burden. The worst-case scenario is that the ETF trading business just becomes far too expensive and liquidity providers just either don't put up the same level of liquidity or they just step away completely."

Head of ETF
Global Asset Manager

[10] *https://www.ishares.com/us/insights/global-etf-facts*
[11] *https://www.ishares.com/us/insights/global-etf-facts*

exemption that allows ETFs to match T+2 creates a number of operational considerations which risks the provision of ETF liquidity further still.

ETF Regulatory Fund Breaches

As well as increasing the cost of long natural inventory and thereby making the cost of trading ETFs more expensive, shortening the settlement cycle creates the risk of regulatory fund breaches for UCITS. Currently baskets of global stocks benchmarked against the US are traded in tandem to ensure clients are treated fairly, segregating out trades that need to settle T+1 versus T+2 risks trading at different times, likely leading to different execution outcomes. If trades are required to settle T+1, asset managers will have to mandate brokers settle T+1 with market settlement T+2, rather than risk the fund being overdrawn or holding cash positions that would create a regulatory breach as with single stocks, but now with global portfolios.

The option for the broker is either to fail or fund the position in order to sell to their client T+2 but create T+1. To enforce T+1 on the create risks becoming long cash on the portion of the basket which doesn't sell T+1 but T+2. This again potentially creates a UCITS breach dependent on the size of the trade versus the AUM of the fund. Conversely, if the fund is short cash because the redemption has yet to occur, the risk is the fund becomes overdrawn incurring custodian charges as well as regulatory scrutiny. As interest rates continue to rise, this becomes increasingly costly to fund.

Perhaps more importantly is the impact on holding Asian Securities. MSCI World Global baskets which in the main contain two-thirds US securities, and one third non-US securities, will no longer be able to be handled systematically and a decision taken as to whether to settle T+1 to match the US portion of the basket. Asian trades of any significant size are normally executed T+1 given market hours necessitating ETF creates being forced to settle on Trade Date, something which the market is currently not set up to handle.

"Australia will have double the time difference, so half the time to solve – which again increases costs and makes ETF a less attractive product. For APs who want to redeem shares in ETF will either have to hold more inventory or borrow those shares in the market, which may not be available or pay a higher fee to borrow those shares. We expect to see a significant increase in spreads for those international equity products. Bonds is a slightly more nuanced market because a lot in Europe is OTC, so you will have more positions on inventory."

Head of Trading
European Asset Manager

"The cash on the ETF and basket legs currently match with T+2. For global baskets where 60-70% is US and would move to T+1 it presents issues, as leaving the ETF to settle T+2 for primary market trades (in line with European market convention) would mean the fund would always be overdrawn on create trades where we would be short cash for 60-70% of the trade notional for a day. If we moved the same ETF to T+1 settlement, we would end up long cash for 30-40% of the trade notional for a day, which could result in UCITS breaches."

Head of ETF
Global Asset Manager

"The later the day the decision to trade is made you potentially miss the close of the Asian markets. So if instead of settling the shares on the ETF creation side T+1 we will need to settle the shares on trade date. No transfer agent can handle that today in any size".

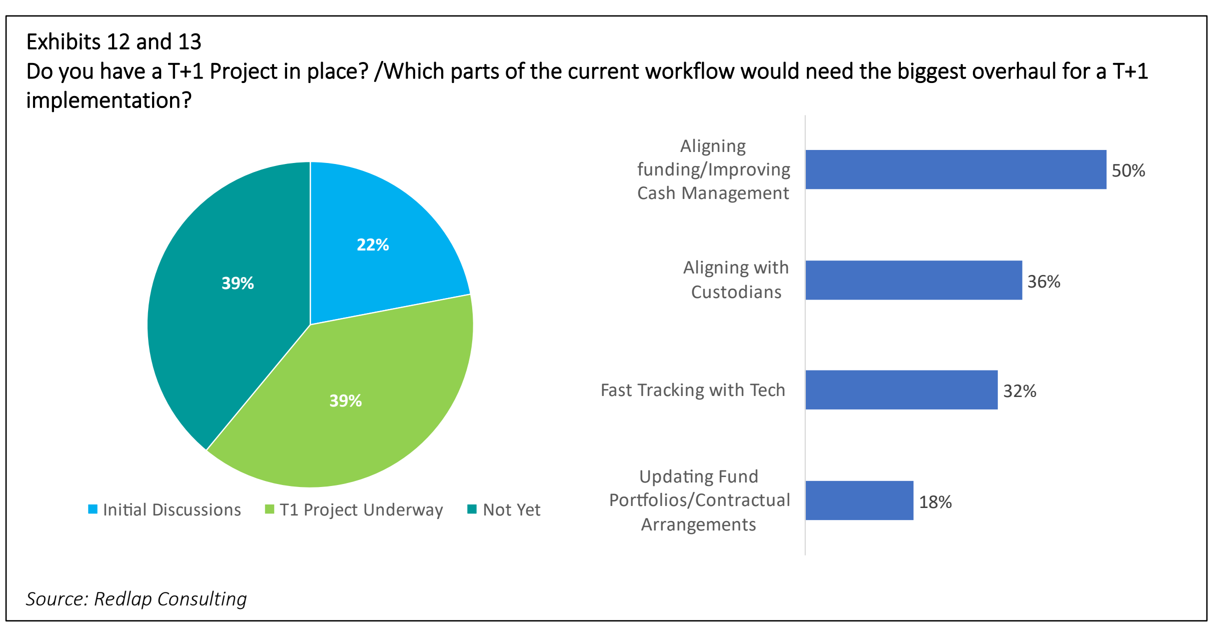
Global Head of Trading
Global Asset Manager

Practical Next Steps

The reality is the clock is now firmly ticking down to T+1 settlement with 39% of responding firms having a T+1 project already in place (see Exhibit 12). But half the responding organizations recognise the need to address cash management within a shortened cycle for non-USD operating accounts rather than focus on greater automation in post trade matching (see Exhibit 13).

Exhibits 12 and 13

Do you have a T+1 Project in place? /Which parts of the current workflow would need the biggest overhaul for a T+1 implementation?



Source: Redlap Consulting

Prevention rather than Reaction

The move to T+1 has the potential to improve settlement efficiency as the industry will be forced to make greater investment in post trade. However, the focus is shifting from automatic matching to homing in on exceptions that will fail.

High-frequency firms have long focused on accelerating end of day processes, ensuring netting, allocations and submissions are made to clearing houses and custodians on T0 bring the exceptions to the fore faster. But tech advances now are further aggregating data on problem trades, to understand why the trade is failing and enabling firms to proactively resolve trades before they fail.

As the industry continues to consolidate, global asset managers can be trading simultaneously for multiple accounts with different sub-accounts and settlement instructions. Any client that still has an element of manual intervention with this level of complex allocation increases the room for error and therefore risk of settlement failure. One solution would be for firms to opt to use outsourced third party settlement services which again risks potentially increasing systemic risk across the market should all trade settlement rest in the hands of a few major market participants.

"When you have an Index rebal at the end of the month, we have minutes to resolve issues. We can do 40-50ks worth of trades that's where the investment in Tech comes in. What do you do when you've just traded 40,000 block trades that have 200 to 300 fills without technology?

Head of Operations
Global Asset Manager

"When the US closes, we are not live, but our system will still match those trades 10/11pm GMT. Then we only need to match the exceptions on T+1. Previously you had to scroll through all the allocations to find the issue – the tech allows you to hone in on where the problem is."

Head of Operations
Global Asset Manager

"In the pre-settlement blotter it now shows us the reason the trade will fail, and we will be able to jump on those now before it happens."

Head of Operations
Global Asset Manager

Standardising Post Trade Workflows

Alternatively, the industry could adopt greater industry standards such as FIX real-time reconciliation processes. This not only lowers the cost of implementation across the industry but also . While many clients still use CMS, gradually more are using FIX Protocols to increase the proportion of activity to be in place for over overnight netting.

> *"Getting everyone to use FIX real-time post trade would be the utopia. We have full FIX STP real-time post trade, but most clients are still using CTM for allocations still just 25-30% are now on FIX.*
>
> **Head of Operations**
> **Global Sell Side**

Although highly automated straight-through-processing (STP) is in place already in the US, a large number of US market participants still operate manual processes sending drop copies of data. The DTCC Central Trade Matching Platform (CTM)[12]enables market participants to release allocations via FIX to ensure overnight matching and settlement between clearing agents and custodians and new accounts can be set up using DTCC Alert. The reliance on manual workflow processes hampers the ability of all market participants as firms can only operate at the same level of the weakest link in the chain of settlement. Streamlining internal operations to reduce reliance on manual processes requires standardised industry practices, particularly given that standardized settlement instructions ("SSIs")-related issues continue to be one of the most common reasons for settlement fails in the US according to the DTCC[13].

> *"We want to use real time FIX messaging on the allocations that we're sending out, and we want the status of that back via FIX message real time. Some still use periodic files of data but it's not streaming. Getting everyone to use FIX real-time post trade would be the utopia."*
>
> **Head of Operations**
> **Global Sell Side**

> *"Everyone operates on best intentions to settle but if the custodian has loaned stock out, we are not going to know in advance and when it is recalled it is often a manual process with a 48hr recall process".*
>
> **Head of Operations**
> **Global Asset Manager**

> *"Sec Lending at the custodian is our main issue, they will loan that stock to someone, we don't even know who it is. We need to automate the process. Right now, if I sell a stock, I send the custodians a Swift. Once they receive that swift and book to trade in their system, they will then start the recall process. We all struggle with the whole stock loan recall process, especially for under the CSDR regime. The fines aren't large but we get 200-250 fails a day because we are doing anything between 20 and 25,000 allocations a day".*
>
> **Head of Operations**
> **Global Asset Manager**

For European asset managers, the main reason for trade failures is cited as broker or inventory shorts which is becoming a far larger issue due to the CSDR regime, and the fines incurred as a result. The International Securities Lending Association (ISLA) estimated the value of securities on-loan globally hit a new record of EUR 2.7 trillion in December 2021. The difficulty in managing this process currently is the manual nature of the transactions. By introducing FIX standards for Inventory to understand Loan and Lender availability, Short Sale availability, standards for new loans, loan recalls, returns and buy-in notices enables the information flows to be speeded up as well as automate the Stock Loan workflow process and manage Collateral Workflows. This would include the real-time status on new loans, return messages containing Unique Trade Identifiers (UTIs), loan modifications and cancellations and the securities available to lend or put out on loan at the end of the day. Additional standards are also being addressed to cover Repo and Reverse Repo.

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[12] https://www.dtcc.com/institutional-trade-processing/itp/ctm
[13] https://www.sec.gov/rules/final/2023/34-96930.pdf

Compliant or Complacent Custodians

Part of the challenge in addressing T+1 remains with the custodians, where they are based relative to their clients, brokers and clearing agents as well as the level of sophistication in services they can offer. The switch to T+1 will force significant investment to address existing operational challenges. The delivery of data will need to be tightened up so that trade matching, allocation and settlement can happen faster across the board.

T+1 demonstrates the importance of technology throughout the full trade lifecycle for all parties. Northern Trust is the latest custodian to fall under regulatory scrutiny with their operating systems described as a bottleneck[14] during the recent UK pension crisis and needing improvement to manage LDI margin call demands. The LDI crisis has highlighted FCA concerns regarding manual nature of operating systems which are becoming a bottleneck for the industry because they are so inherently dependent on physical bodies to solve settlement issues that might be out of the European jurisdiction.

Some managers have a large number of custodians which will require understanding how different methods of engagement will work. Mandated funds often select their own custodian which may be different to that of the asset manager trading on their behalf.

Currently most settlement cycles are aligned by coincidence rather than a public industry standard. Changing the settlement cycle of funds is potentially subject to shareholder approval, regulatory approval, and will require updating document and prospectuses. Given the level of investment needed for the industry to move to T+1 will require co-ordination from all stakeholders involved. This does not just mean between the EU and the US but buy-side, sell-side, exchanges, venues, custodians, clearing and transfer agents globally. The challenge the industry faces is many of the larger stalwarts of the industry have grown through acquisition. Maintaining current service levels with legacy technology leaves little room for the necessary enhancements to address what will be required to meet T+1, but without this change, any move to T+1 will fail to succeed.

"My problem is, is the custodian ready? I have a big challenge where I'm not I'm not going to name names, but I have custodians who are offshored. And they don't have coverage after 5pm. You tell me. Lux funds trading US. None of the trades get regarded on time. If the US moves to T+1, custodians will have to change everything, their systems, their batch processes, they will have to behave like us. Technically we are ready but there would have to be a lot of contractual changes - but it's not about us, it's the custodians.".

Head of Operations
Global Asset Manager

"We have over 30 custodians and we need to have an understanding how their models will align."

Head of Operations
Global Asset Manager

"When you look at the tech spend and the strategic plans that custodians have, so much has been automated by Swift, but the manual work arounds are treated as a necessary evil, hence putting more bums on seats in offshore markets."

Head of Operations
Global Asset Manager

"In our conversations with more than one custodian is it just doesn't even appear to be on their radar. If it's 2024, that's not very far away in terms of updating systems etc., and they just don't even seem to have a working group, which is quite surprising really, and a bit frustrating. Nothing can happen until the custodians get the technology to make the investment to facilitate this. It doesn't really matter whether the US and EU are linked up, if the custodians just can't support it, it's not going to happen."

Head of Operations
European Asset Manager

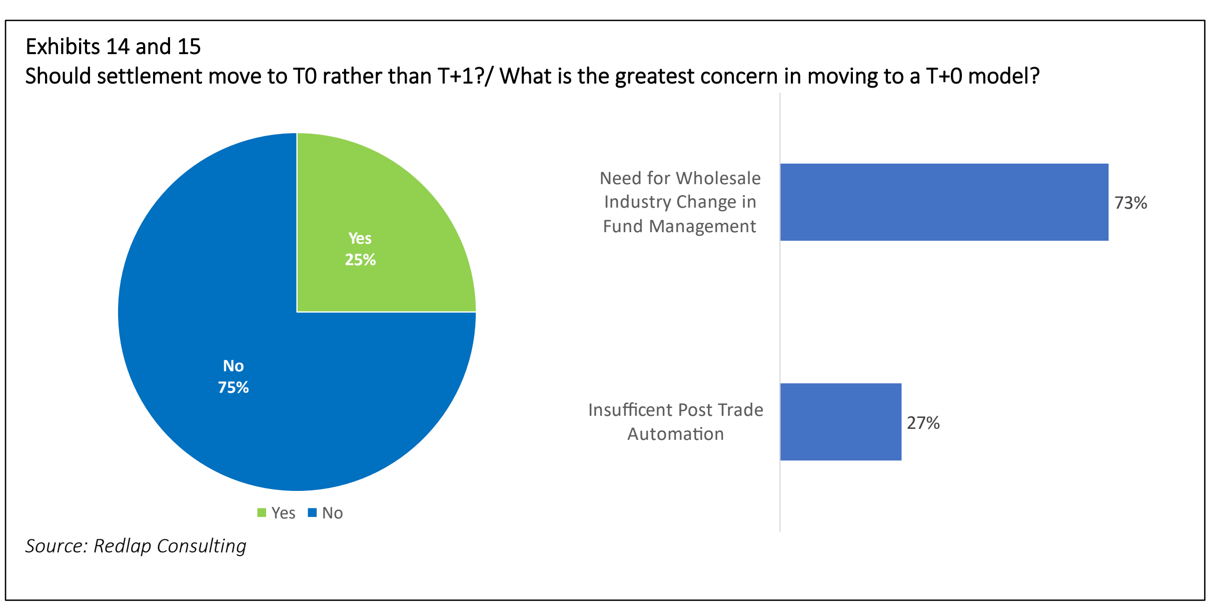
[14] https://www.ft.com/content/b06c490b-c645-46b8-b466-6edf610427d7?desktop=true&segmentId=7c8f09b9-9b61-4fbb-9430-9208a9e233c8#myft:notification:daily-email:content

T0 Distraction

Citing the challenges related to maintaining multi-lateral netting, institutional trade processing, securities lending practices, money settlement systems, mutual fund and ETF processing, transaction funding requirements, and corporate action processing, the SEC notes that moving settlement to T0 is not yet attainable. However, the US regulator also indicates this is the clear direction of travel – *"the transition to a T+1 settlement cycle can be a useful step in identifying potential paths to T+0 settlement".*

Exhibits 14 and 15

Should settlement move to T0 rather than T+1?/ What is the greatest concern in moving to a T+0 model?



Source: Redlap Consulting

Three quarters of respondents roundly rejected any move to T+0 at this stage (see Exhibit 14), given the level of change required for the fund industry. Rather than concerns related to post trade, fund structure will need to be addressed first (see Exhibit 15). As noted in the recent AFME Paper[15], while the move to T+1 will necessitate operational and technical changes by market participants, the move to T+0 would necessitate transactions be funded on a transaction-by-transaction basis, eliminating the liquidity and risk-mitigating benefits of today's netting features.

"Blockchain or DLT with no FX issues and all the trades settling instantaneously would be great – that's utopia but we are not ready to make that step, there are just so many implications to consider whatever asset class you are trading, it would be a huge step. And are we ready to do that? We're not. So people talking about T0 is just kind of distracting. We should focus on T1 which is happening now, let's address that first rather than predicting what could happen."

Head of Operations
European Asset Manager

All transactions would need to be pre-funded by investors, with cash in hand and securities owned for each transaction at point of execution. This means investors would need to have complete confidence in their trading partner to make good on the transaction even though the counterparty could be anonymous to them. Instantaneous settlement would also require trades to be prefunded on an unsecured basis, which could limit market liquidity and is difficult to predict as participants cannot know financing needs until the market close. Determining intraday investment amounts are not only difficult to calculate but could potentially be inaccurate, leading to additional costs. That said, T+0 is clearly firmly on the SEC's radar.

[15] https://www.afme.eu/Publications/Reports/Details/detail/T1-Settlement-in-Europe--Potential-Benefits-and--Challenges

Conclusion

T+1 settlement is not an insurmountable challenge to resolve but it will be impossible for the SEC to introduce this change in isolation without the extra-territorial impact of this reverberating internationally. Successful delivery of T+1 settlement is not just dependent on speeding up trade confirmations and introducing standard settlement instructions. Even vanilla equity trading requires funding to settle DTCC for ADR conversions for retail European investors. European securities and US ADRs moving in different settlement cycles introduces inherent risk into the market. That risk will be significantly amplified when looking at Fixed Income markets and ETFs. Market liquidity will become entirely reliant on brokers acting as intermediaries at significant and rising cost which ultimately will be borne by the end investor.

The industry is not averse to change. There are a number of clear advantages in speeding up when investors can receive the benefits of their transaction as well as reducing systemic risk. However, no global asset manager operates a silo'ed fund structure; there are European funds; US funds; Emerging markets funds with high US currency exposure if not stock exposure; Asian funds with US Depository Receipt products to gain Asian exposure. The complex web of global markets, different currencies, assets and nuances within portfolios create the potential for chaos under the current fund structure model. This needs to be addressed before shortening the settlement timeframe further.

That is not to say that T+1 is not a goal that the industry should work towards, but it will require concerted and co-ordinated effort globally from all market participants in the full trade life cycle to implement this change successfully. The ideal would be for global markets to address a shorter settlement cycle in tandem. While the UK have announced that T+1 is under review, the legal complexities of MiFID II and CSDR mean that for the European regulators a move to T+1 would be problematic ahead of 2025 with Asian markets looking at a move by the end of the decade.
In the interim, this paper would suggest:

1. A clear exemption in the settlement cycle for non-US domiciled funds and investors to avoid any immediate impact. This would not elevate the complexity of operating different settlement cycles between US and Non-US markets, but it would alleviate the regulatory risk of breaches.
2. Funding and cash management cycles being brought in line with the US. No respondent was able to provide a credible explanation as to why the fund subscription and redemption cycle remains T+3 in Europe. Immaterial inflows and outflows can be managed. Material changes require funding either by brokers or custodians whose services are increasing in cost due to rising rates. In an industry of shrinking margins, this appears to be an unnecessary cost which could be eliminated.
3. FX provision needs to be addressed. Recent responses to the SEC proposals outlined a number of suggestions from encouraging banks to extend the day of their FX trading activities or shorten the US trading day to provide firms more time to match trades and ensure the settlement FX is in place for the following day. An alternative would be to incorporate real-time FX in every transaction. In isolation possible. Cumulatively this introduces unnecessary expense given the cost of repeatedly crossing the spread which is the reason why FX trading is netted end of day.
4. Finally, the industry needs to embrace greater use of industry standard protocols and greater technology – front to back office including custodians and clearers. Increased use of global standards lowers cost to entry and reduces risk of smaller firms being shut out or

forced to outsource settlement to third parties if they are unable to keep up with the necessary investment in technology required.

The SEC's intention to reduce cost for end investors is a worthy and necessary one, but the interconnectedness of global markets means that the move to T+1 in the US - which may well be ready for a shortened settlement cycle for domestic assets and domestic funds - will have wider and significant ramifications globally.

The make-up of the financial system has changed. Markets are capital refinancing systems rather than operating as the means for companies to raise capital, which means markets need to absorb global debt piles in excess of $300tn. Understanding balance sheet capacity to finance debt issues is the means by which to ensure the liquidity bandwagon continues to oil the wheels of industry. Rising interest rates will continue to challenge the ability for the industry to continue successfully funding this debt. The September turmoil in the UK Gilt market was a reminder of the risks of financial instability when liquidity is withdrawn. The US move to T+1 could be the next catalyst that triggers market disruption, even if it is unintentionally.