

A new market structure?

The challenges and opportunities for FX from the US and Canada shift to T+1



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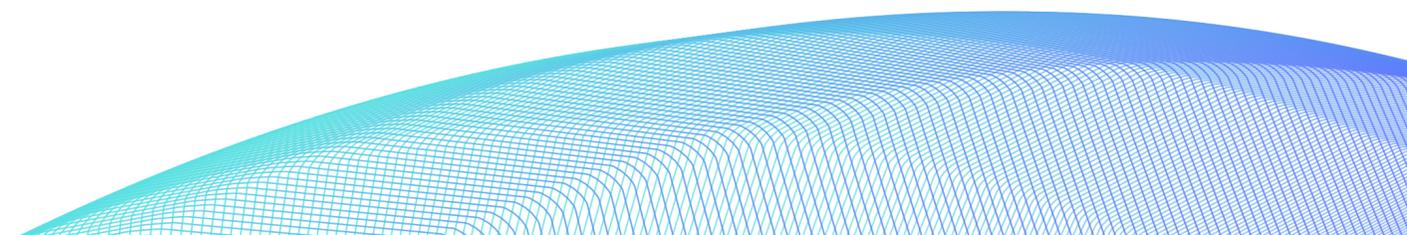
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On 28 May 2024, due to a regulatory change by the US Securities and Exchange Commission (SEC), the US and Canada securities markets will transition to a Trade Date + 1 settlement period from a Trade Date + 2. This transformation to T+1 will prove challenging to the foreign exchange industry, not least because an important sub-set of participants – money managers – now face both hedging and funding challenges as they seek to manage their investment mandates.

By moving to T+1 in the US and Canada in May 2024, the SEC may have indirectly created a problem for investors with a diversified, global portfolio – namely, how to balance up cash flows when one side of an international portfolio rebalancing has to be funded one day earlier (or later) than the other?

- European and UK regulators have initiated consultations with the financial industry over their own potential move to T+1 – but neither is likely to be able to move quickly enough to match the US and Canada deadline.
- For Asia-based market participants, meanwhile, the time horizon for processing trades and calculating and executing FX hedges is severely compressed – it can be as little as two hours, meaning Asian market participants are acting in a de facto T+0 environment.

To surmount the obstacles of FX hedging and funding in a T+1 environment, investment managers may need to adjust their workflows to ensure a streamlined and robust process is in place – not only to meet the challenges for their securities markets’ operations but also for their FX activities. This could involve:

- New technology
- Greater outsourcing of services
- A realignment of the business along geographical lines
- Changing FX trading procedures

This is potentially an operational nightmare for some investment managers in particular, with the balance of risks in the business shifting towards the back office from front. **Automation of processes will be vital**, and the **efficient consumption and distribution of data will be critical** in enabling support functions to deliver the right information to the right place within a much shorter time window.

Taken together, these changes are likely to lead to increased operational and FX trading costs. Firms may need to consider the creation of an “on the ground” presence – especially in the US; as well as a change to internal trading and funding procedures as the FX hedging process becomes more complex. These challenges will probably be exacerbated at quarter-ends, when funding often becomes tighter and FX swaps market liquidity thinner¹. Liquidity squeezes could become more commonplace, especially if there is a shift to more trading around the North American close.

1 [bis.org/publ/work836.pdf](https://www.bis.org/publ/work836.pdf)

Time pressures

Global regulators, seeking to mitigate some of the settlement risks associated with FX markets, are actively encouraging the use of Payment-versus-Payment (PvP) mechanisms, the major player in this space being CLS (Continuous Linked Settlement). CLS currently does not support T+0 settlement and its cut off time is 6pm EST for next-day settlement. This means many firms will have just two hours to calculate, execute and have their FX hedges confirmed if they are to be able to use what is actively promoted as the best-practice mechanism in PvP settlement.

An extra complexity comes from the 5pm EST value date change in FX markets – any trade submitted for execution after this time is automatically time-stamped for the next working day, so it could require T+0 treatment – meaning it will have to be handled outside of CLS. It is also worth observing the anecdotal increase in popularity of the “trade-at-close” order type in US equity markets, which has meant trading in those markets has migrated to later in the day rather than being evenly spread – thus reducing the window further for accurate processing.

One final issue is that the US allocations cut-off is one hour after the CLS window closes, so investment managers seeking to execute their FX hedge will face the problem of ensuring that each sub-fund is executing an FX hedge with an approved counterparty when the allocations from the original securities trades have yet to be finalised. CLS has stated it is considering extending the settlement window to meet this challenge but it remains unclear whether this will be achieved in time¹. This would also involve significant technical and regulatory effort.

The challenge is real enough for US-based managers, but is significantly greater for European and especially Asian managers.

- European managers will potentially only know the amount of their FX hedge at 9/10pm local time.
- In Asia it will be early in the next trading day, thus effectively making the process T+0.

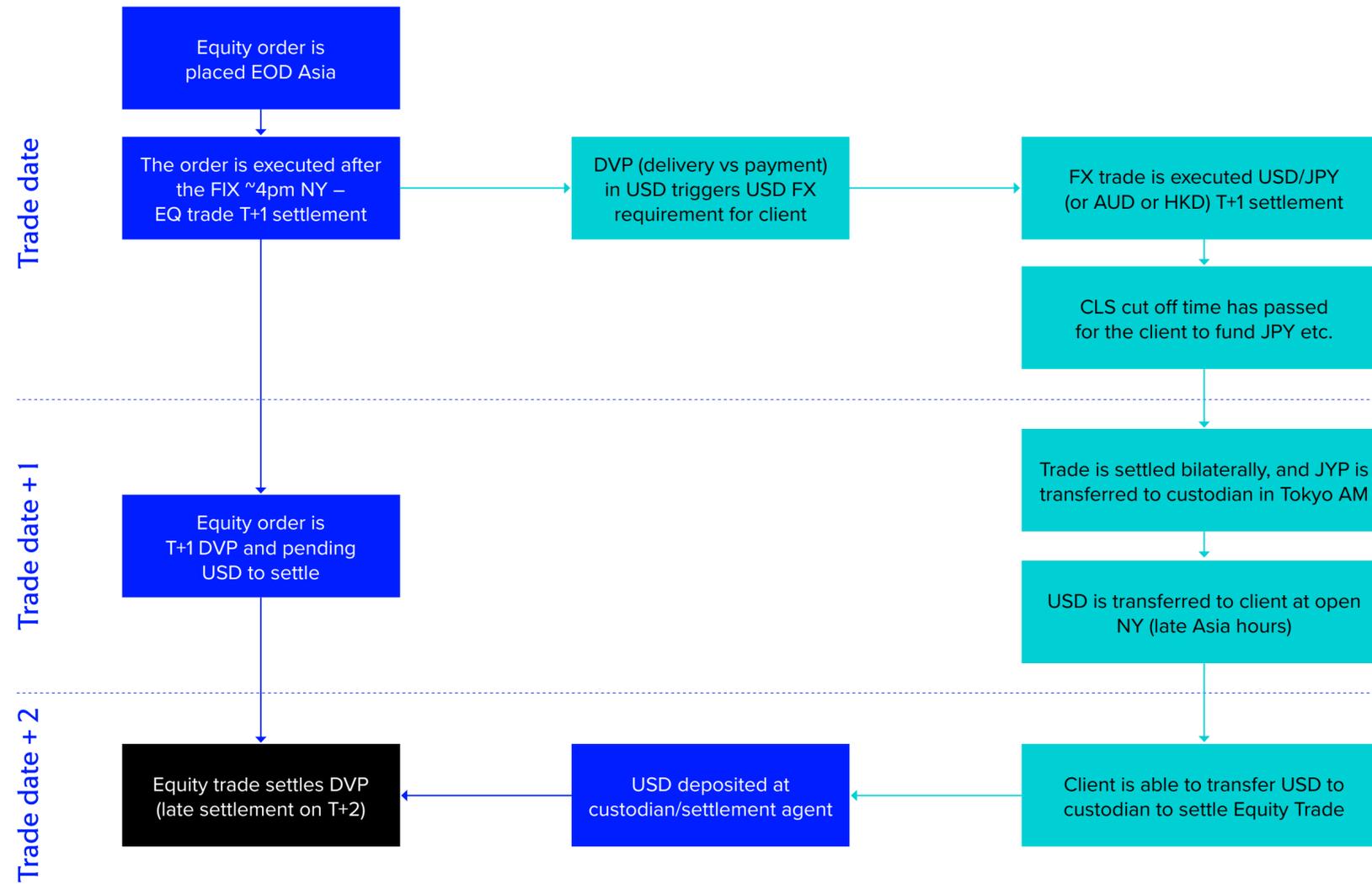
This issue is exacerbated by local cut-off times for domestic payments systems: many local RTGS (real-time gross settlement) systems only operate for a short window during the day.

Collectively, then, this means that an investor would have to execute and confirm their securities trade, provide accurate details to custodians and other service providers, calculate their FX hedge and execute it – all within a very brief timeframe.

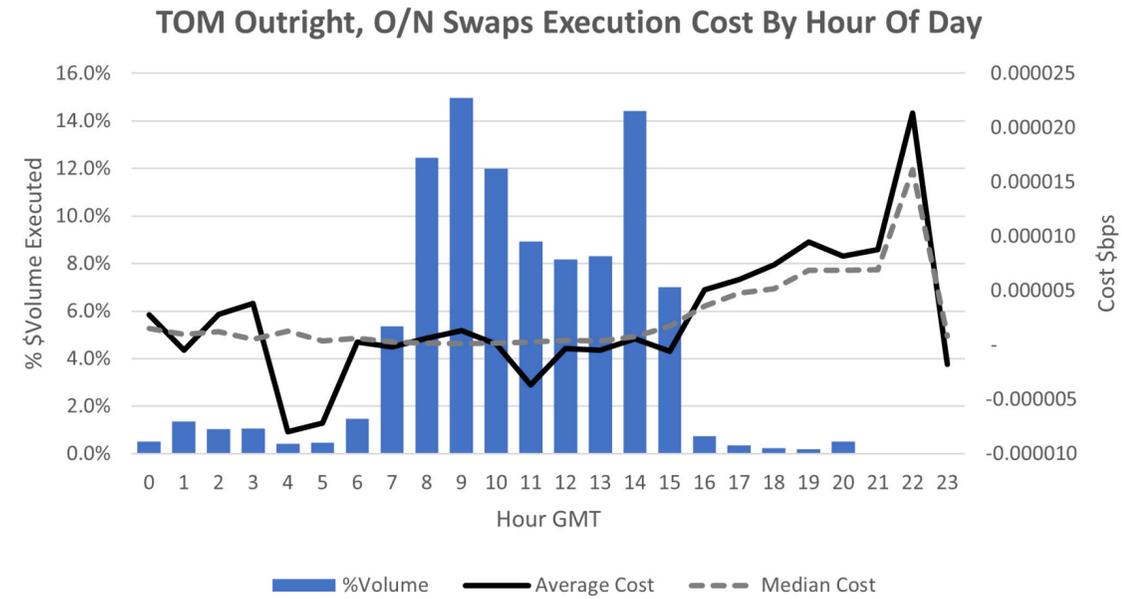
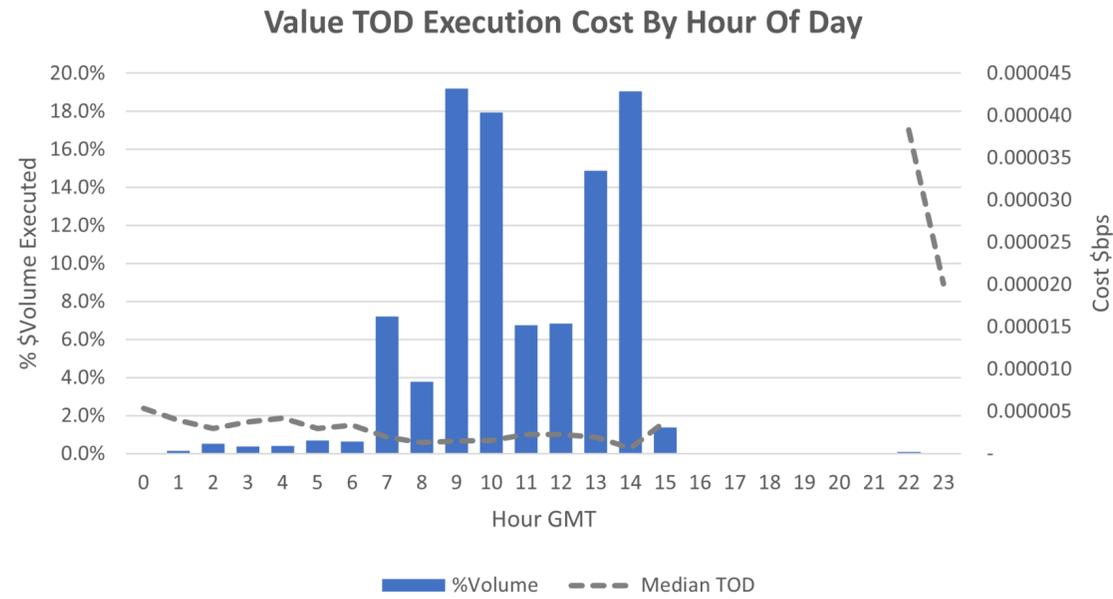
The risk of operational errors is increased, and while failed trades in FX markets do not attract formal penalties, the same cannot be said for local securities markets where the punishments can be significant. The investment manager therefore has to ensure the accuracy of their underlying transactions before they can even think about the FX hedge, thus squeezing the window even further and leading to the potential of having to adjust that hedge post-trade.

¹ [reuters.com/markets/currencies/fx-settlement-system-cls-may-tweak-deadline-avoid-us-equity-market-rule-2023-09-26/](https://www.reuters.com/markets/currencies/fx-settlement-system-cls-may-tweak-deadline-avoid-us-equity-market-rule-2023-09-26/)

Settlement life-cycle EQ and FX



Analysis indicates it is less expensive to trade value TOD after London close as opposed to trading value TOM after London close.



A degree of risk mitigation can be to establish operations in the US, and this is actively being considered by several firms, however this also involves significant cost – as would establishing a 24-hour business in the home domicile. Given the current structure of the FX market, where liquidity is at its lowest at and immediately after the New York close, and many major participants and infrastructure providers close their trading platforms for a brief window for maintenance and administrative purposes, any FX hedge would be executed at possibly the worst time in terms of market impact.

Securities Lending

T+1 has the potential to increase settlement fails if there aren't changes to processes and improvements in technology by lending agents, borrowers, asset owners and other participants. Industry groups are examining changes to cutoff times to aid with T+1 settlement.

How big is the problem?

Calculating the size of the challenge investment managers face in their FX hedging and funding operations is incredibly difficult and can only be done with the liberal use of assumptions.

At a very high level, the most recent data from the Bank for International Settlements' (BIS) Triennial Survey of FX Turnover from April 2022 indicates that the US dollar is on one side of 88.5% of all transactions in the US\$7.5 trillion per-day market¹. In notional terms, only US\$500 billion is executed involving currencies on T+1 securities settlement cycles – and that assumes that Mexico moves along with the US and Canada as expected.

Of course, not all FX business will be based upon domestic securities transactions. The BIS 2022 report indicates that institutional investors executed US\$847 billion per day in FX markets, a significant proportion of which would be prompted by trading in domestic securities markets¹. If 88.5% of that volume involved the US dollar, then three-quarters of a trillion dollars' worth of FX trades would be subject to different settlement timelines every day.

In reality, CLS estimates that US\$70 billion per day will be impacted by the change – however this is in CLS currencies only; emerging markets trades will push the total higher².

Booking trades using the WM/BFIX benchmarks could also become more difficult, given the reduced processing time. T+2 WM spot trades will need forward point adjustments to T+1 value. Volume data is unavailable but in 2016, a report by the Financial Stability Board found that average spot volumes during what was the one-minute WM fixing window were 10 times greater than the average throughout the rest of the day³.

Finally, there is the sheer scale of foreign holdings in US securities markets. The latest report from the US Treasury, published in early 2023, finds that at end-June 2022, US\$25.3 trillion of US securities were in foreign hands, US\$12.2 trillion in equities and US\$1.1 trillion in short-term debt securities, with the balance in longer-term debt securities⁴.

European entities hold 48% of these securities and 26% are held in Asia-Pacific. Obviously not all of this money is in play at the same time but in times of market stress, volumes do leap and even a 0.5% portfolio shift into or out of the US would potentially trigger US\$125 billion in FX flows for hedging and funding requirements.

1 <https://www.bis.org/publ/work836.pdf>

2 <https://thefullfx.com/cls-surveying-over-changing-settlement-cut-off/>

3 fsb.org/wp-content/uploads/r_140930.pdf

4 <https://home.treasury.gov/news/press-releases/jy1311>

Buying time

Although the operational challenges for managers will remain, there is good news in that the FX market structure is prepared for, and can cope with, T+0 trading. The bad news is that by adopting this approach, a firm is replacing operational risk with settlement risk.

As noted, CLS does not operate on a T+0 basis, thus there would be what could be termed a “re-bilateralisation” of FX settlement, whereby trades are settled directly between the parties to the trade. Again, though, there is heightened counterparty risk and the nostro banks in the relevant currency jurisdictions will also have time pressures of their own – especially in Asia.

One solution is to outsource more of the FX hedging and settlement process to custodians or prime brokers. These firms have the workflow tools in place to be able to ease the pressures – however, again there is a caveat: they need accurate data in a timely fashion. Some custodians offer an “execution-to-custody” service, where the custodian receives messages from the executing broker(s) and matches them ahead of sending to settlement. This means the end-user does not have to be involved in the process – but it does presuppose that the executing broker has sufficient levels of automation in their own business to be able to deliver the trade data quickly enough.

For investment managers seeking to manage this process in-house, the solution will be automation, automation, automation – with perhaps a different trading methodology thrown in for good measure.

Atomic settlement, which remains in its infancy, is another potential solution for some trades – however this would involve significantly increased ticket throughput and remove the benefits of netting.

Firms considering atomic settlement would need to shift away from the current “batch” processing of trades to either a more frequent batching of trades for hedging, or hedging them on an individual basis. This would trigger a large increase in the number of FX trades being executed and again means automated workflow from trade generation through delivery to custodian or prime broker and on to settlement.

Such an option would also likely mean a substantial reduction in average trade size and a significant increase in ticket numbers, so managers need to be confident that they have the capacity needed to handle higher ticket throughput. Equally, if these managers are to execute their FX trades in a competitive environment to satisfy their best execution requirements, the institutional trading platforms may have to consider reducing their minimum trade size with what may be the subsequent challenges around market quality.

In fixed income markets this is likely to be less of an issue, because trade sizes tend to be larger and solutions are available to auto-hedge the FX alongside the underlying bond trade. For equities trades, however, especially in volatile conditions, the cost of trading could grow exponentially through having to execute the existing number of trades multiple times. While the market risk is spread out from such an approach, given that every trade attracts a basic cost, this could accumulate quickly.

Does new technology provide an answer?

As the T+1 changeover approaches, questions are being asked as to whether new technology – and products – can help provide a solution to the operational challenges being faced by FX market participants; principally from the digital assets world.

Proponents argue that “on-chain FX” would provide the solution thanks to its structure supporting quicker – indeed atomic – settlement times. While the original third-party-operated blockchain process is likely to be unsuitable for FX markets, the greater flexibility allowed by distributed ledger technology (DLT) – where different parties to the trade process can have their own bespoke workflow – would seem to have potential.

The big challenge for “on-chain FX”, however, is would it actually solve the problem? Speeding up the hedging and settlement process could help, but there is still the underlying problem of actually funding trades that are settling on different days. Pre-funding one side of the securities trade could be a solution but this is unlikely to be an effective use of cash and could diminish overall fund performance. Pre-funding avoids the need for firms to try to locate liquidity and settle FX for T+1 value but there will be, as noted, extra costs involved.

Equally, many investment managers and hedge funds prefer to settle their FX trades on a netted basis, to reduce the number of payments to be made. “On-chain FX”, with its immediate settlement process, would only serve to increase the number of payments being made, with the operational headache

that could entail. The “trust-less” nature of digital assets would also mean processes would have to be agreed and in place for any securities trade “fails” which would entail the changing of a hedge.

Another proposal put forward by digital asset advocates is that of automated market makers (AMMs) to support the market on a 24/7 basis to help facilitate trading at all hours of the day. This concept has played a part in several central bank digital currency (CBDC) pilots, and is widely advocated for ‘on-chain FX’ solutions, however there are stark differences between the concept of AMMs and the reality of the global FX market.

To date, AMMs have been involved in small-scale projects and on a live and ongoing basis in cryptocurrency markets. The amounts involved in both have been either theoretical or small compared to those involved in FX markets. It is unclear whether AMMs would be willing or able to provide liquidity in sufficient depth to satisfy the demands of hedgers in FX markets. Evidence from the current FX market, where even the largest participants in the market reduce their risk levels and exposures during the “witching hour” from 5pm EST, suggests they would not.

While tokenisation would appear to offer at least the basis of a solution, therefore, it is not clear that such a solution currently exists – and it would only solve part of the issue.

Structural solutions

A new market structure?

Investment manager workflows are likely to change in response to the T+1 shift in the US and Canada but there are areas in which changes to the FX market structure could help. These involve changing long-standing characteristics of the market as well as implementing new, innovative solutions.

To help ease the challenges around hedging, **FX market conventions could be changed to make “spot”, currently T+2 in most markets, T+1.** This convention already exists for spot trades in the USD/CAD pair and could be extended to other currency pairs. The level of legal work required to facilitate this change is unclear but documentation would need to be changed.

From a technology standpoint, the FX market is already a highly-automated environment, so the change to T+1 is achievable with largely cosmetic changes. The issue of local RTGS windows still applies but assuming the change of spot to T+1 goes ahead, it would have to be on a global basis and should include working with local RTGS providers to facilitate longer – or, more importantly – overlapping, settlement windows.

Equally, **there is a very healthy FX swaps market in the “short dates”** (typically under one-month maturity), with the 2022 BIS Turnover Survey revealing that over US\$1.2 trillion is executed every day for a one-day maturity, and just under US\$1.5 trillion per day with maturities of one to seven days¹. Overall, 71.1% of all FX swaps volume traded daily is for periods one week and under. This means liquidity for firms wishing to hedge out from T+1 to T+2 is likely to be bountiful.

The problem is that FX swaps are largely a funding vehicle, therefore they do not solve for funding gaps where one leg of the underlying securities trade is settling on a different day. **Imbalances will emerge that cannot be solved with a simple “tom-next” or overnight FX swap trade.** The products’ popularity stems from their regulatory treatment – short-dated

FX swaps are out of scope for capital regulations, unlike their money market equivalents. If managers are forced to the latter, they are exposing themselves to higher regulatory costs and increased counterparty risk.

One solution to this problem could be new products that help investors manage their cashflow with more immediacy. As noted, there is a very healthy short-dated FX market for hedging, but for funding the challenge is different. If the investment manager has accurate data, and are confident in it, the greater use of Uneven Swaps could play a part, where one leg of the FX swaps is for a larger amount than the other. To date, these are largely used to account for small, interest-based, differences and the capital and regulatory treatment of such products involving much larger amounts is unclear.

Elsewhere, intra-day FX swaps have been suggested as a potential solution and pilot projects are under way involving banks to see if the product is feasible. If it is, then the FX industry infrastructure will have to adjust. Credit providers will need to establish effective allocation procedures and the risk management function generally will have to be empowered to monitor across much shorter time horizons. **Trading firms will need to have accurate data to be able to price such products accurately and at a reasonable cost.**

With many investors reluctant to shift their best execution policy away from competitive quoting – indeed many are now extending a policy that was largely aimed at their hedging trades to their funding trades in FX swaps – platforms that facilitate trading will need to be able to support these new products in addition to delivering data to the parties in a timely fashion.

Ideally, with such short time horizons, **these service providers will also be connected to enterprise and cash management systems at the investment firm and with downstream solution providers in the post-trade, especially settlement, environment.**

For the investment managers themselves, there may be choices to make around how they operate in the FX market. Many firms use a benchmark fix – the 4pm London WM Fix being especially popular. With a more fluid cash management landscape, they may find they have to trade more often and at different times. Fixings are available from WM at multiple times during a day to help facilitate such a change, however the 4pm Fix is largely seen as the market “close” by investment managers, so could be the occasion for “balancing” trades as they tidy up their exposures.

In general, given the data-heavy nature of hedging (and funding) trades, along with the shortened time horizons, **the minority of investment firms executing in a manual fashion is likely to diminish further, with demand for automated FX trading solutions – ideally with connectable workflow – growing exponentially.** Again, this could be good news for trading technology providers; however the sheer scale of the issue and the breadth of firms requiring connected workflow (without the cost of buying or building a whole new technology stack), probably means that a more “open” infrastructure is likely to emerge, with those providers able to connect to the widest range of down- and up-stream providers likely to benefit the most.

¹ <https://www.bis.org/publ/work836.pdf>

Conclusion

A new market structure?

Surmounting the challenge of the shift to T+1 in the US and Canada will be unique to each firm but there are aspects of the workflow change that are universal, especially when it comes to technology. Without greater automation, firms will face a struggle with both their FX funding and hedging operations.

While some proposed solutions – establishing operations in North America, more frequent trading – can have an impact, it is only likely to result in marginal gains, especially given the associated costs with both approaches. Longer-term benefits may be found in new technologies and while CBDCs are unlikely to arrive at scale soon enough, tokenisation does offer some benefits.

The key to a successful transition to the new environment will be the efficient transmission of data to both internal and external systems – and here advances in artificial intelligence (AI) and robotic processing automation (RPA) offer great potential. Alongside this, the FX industry will need to evolve some aspects of its market structure and embrace new, innovative products.

The industry will only be as efficient as the least automated or connected workflows participants use. Custodians and other service providers are able to reduce the friction in the trade process but they are still **reliant upon the end client providing timely, accurate data.**

The good news is that FX is largely an automated industry and as such error rates are very low; equally, as automation increases amongst investment managers, the error rates generated from failed trades in securities markets will also drop significantly.

Investment managers will have increased need for cash liquidity, which could be fulfilled through new products, while credit and pricing mechanisms may need to be adjusted to a shorter time horizon.

This all points to the need for **true end-to-end workflow solutions, powered by high quality data, that are widely connected throughout the industry. This puts a premium on full-service providers with a proven track record in automation and the deployment of technology solutions.**

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FXall

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