GFMA's Global FX Division (GFXD)

GFXD – FX Considerations for T+1 U.S. Securities Settlement

Version: May 2023

Background to the Global Foreign Exchange Division

The Global Financial Markets Associations (GFMAs) Global Foreign Exchange Division (GFXD) was formed in co-operation with the Association for Financial Markets in Europe (AFME), the Securities Industry and Financial Markets Association (SIFMA) and the Asia Securities Industry and Financial Markets Association (ASIFMA). Its members comprise 25 global foreign exchange (FX) market participants[1], collectively representing the majority of the FX inter-dealer market[2]. Both the GFXD and its members are committed to ensuring a robust, open, and fair marketplace and welcome the opportunity for continued dialogue with global regulators.

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[1] Bank of America, Bank of New York Mellon, Barclays, BNP Paribas, Citi, Credit Agricole, Credit Suisse, Deutsche Bank, Goldman Sachs, HSBC, ING, JP Morgan, Lloyds, Mizuho, Morgan Stanley, MUFG Bank, NatWest Markets, Nomura, Northern Trust, RBC, Standard Chartered Bank, State Street, UBS, US Bank and Wells Fargo
[2] According to Euromoney league tables

<u>Executive Summary</u>

- **U.S. securities settlement will move from T+2 to T+1 effective May 28th, 2024**
- **Financial market participants are assessing the impact of the shortened U.S. securities settlement cycle across their global trading and operations businesses, and across asset classes including foreign exchange (FX)**
- **Accelerating U.S. securities settlement to T+1, raises the risk that transaction funding dependent on FX settlement, may not occur in time**
- **Cross-border U.S. security transactions with a related FX trade will require the expedited execution of <u>both trades</u> to enable settlement to be completed in the shortened T+1 window**
- **The FX settlement process involves trade matching, confirmation, and payment, all to be completed within local currency cut-off times**
- **This paper discusses the important considerations for related FX trades when executing cross-border U.S. securities trades for a T+1 settlement window, including potential settlement risk, operational risk, and cost considerations**

Introduction

The U.S. Securities Exchange Commission (SEC) has confirmed the U.S securities (incl. cash equities, corporate debt, and unit investment trusts)[3] market is moving from T+2 to T+1 settlement cycle effective from 28th May 2024. The shift towards the shortening of the securities settlement cycle to T+1 is happening across global financial markets with India having migrated in January 2023, Canada set to migrate their securities settlement process on 27th May 2024 in line with the U.S., and T+1 reviews underway in Europe and the UK. This shift is driven by the goal of lowering counterparty risk, and capturing "cost savings, reduced market risk and lower margin requirements."[4]

Financial market participants are assessing the impact of the shortened U.S. securities settlement cycle across their global trading and operations businesses. This assessment includes instituting changes to settlement processes and understanding the impact this change will have on other asset classes, such as foreign exchange (FX). Foreign investors in U.S securities (which are denominated in U.S. dollars) execute FX trades to fund the purchase or sale in U.S. dollars from their local currencies. Accelerating U.S. securities settlement to T+1 impacts these related transactions and raises the risk that transaction funding dependent on FX settlement may not occur in time. Therefore, it is critical to understand the changes that are required for both the FX and international securities trades within the accelerated T+1 settlement window to ensure timely settlement can be completed.

Given the material ownership of US securities owned outside of the US (19.6% of securities and 16% of the equity market) as illustrated in the following charts, it is important to understand the related FX impact areas. This paper discusses the FX market and the relationship between FX and international security trades and identifies the important considerations for FX when executing cross-border U.S. securities trades for a T+1 settlement window.

[3] DTCC "Shortening the Settlement Cycle" Shortening the US Equities Settlement Cycle | DTCC
[4] DTCC "What are the Industry Benefits of a Shortened Settlement Cycle" UST1 FAQs | DTCC

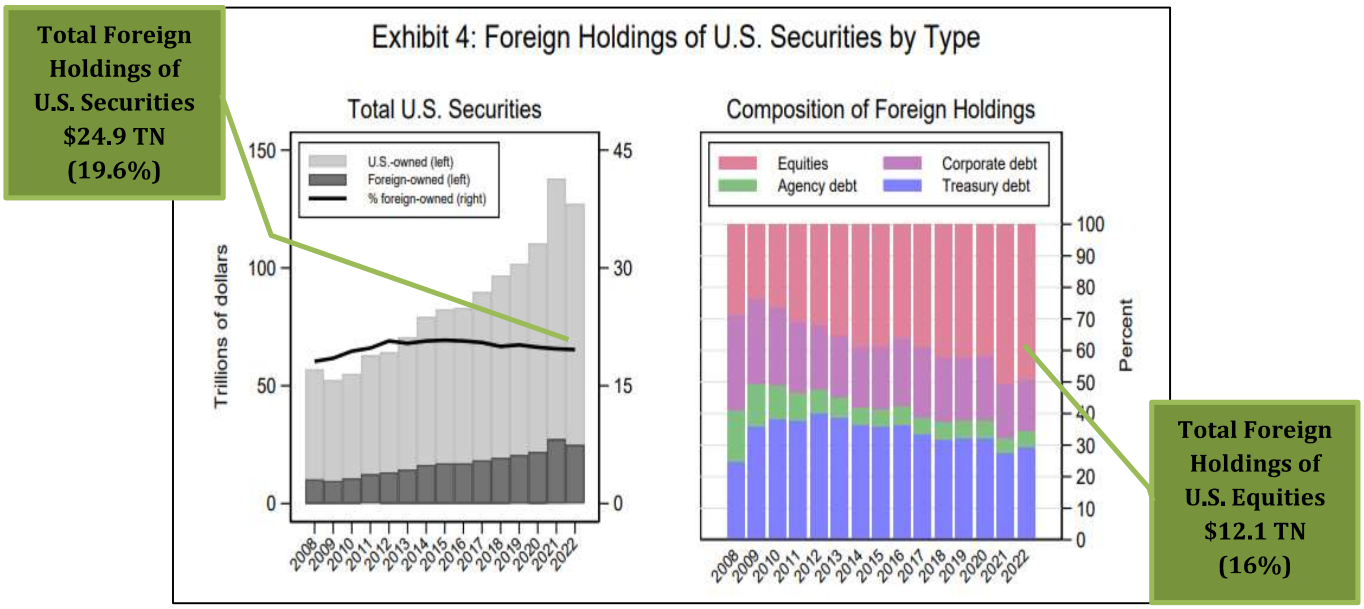

Figure 1- Foreign Holdings of US Securities by Type, Source: Dept of US Treasury "Foreign Portfolio Holdings of U.S. Securities June 30,2022" (May23)

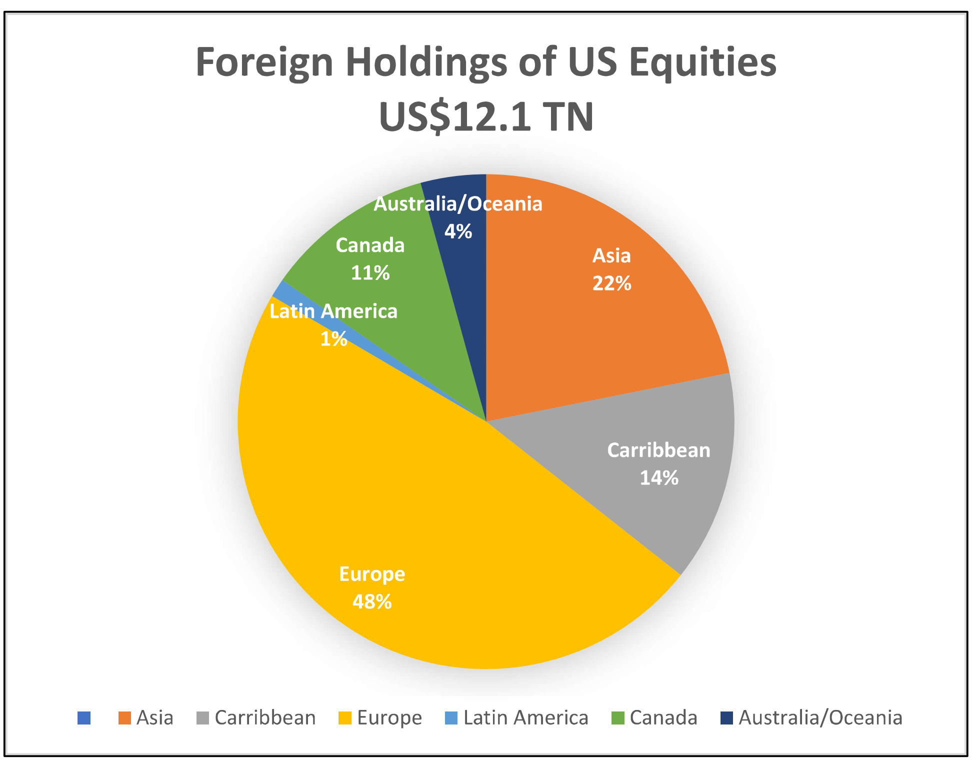

Figure 2 Foreign Holdings of US Securities by Type, Source: Dept of US Treasury "Foreign Portfolio Holdings of U.S. Securities June 30,2022" (May23)

Brief Description of the FX Market

The FX market is the largest and most liquid global financial market and serves as the primary mechanism for making payments across borders, transferring funds, and determining exchange rates between different national currencies.[5] Daily trading volume exceeds $7.5tri[6], nearly half of which is traded for T+1/T+2 settlement.[7]

Each country has its own local currency cut-off times for same-day currency payments. These times are determined by a combination of the local operating hours of Real Time Gross Settlement (RTGS) systems (run by the central bank) and access to nostro accounts and processing time for banks involved in settling the FX payment. Figure 3 illustrates the range of RTGS local currency operating hours across all regions. **Local currency cut-off times are a key consideration when trading cross-border T+1 U.S. securities.** This will be discussed in more detail below.

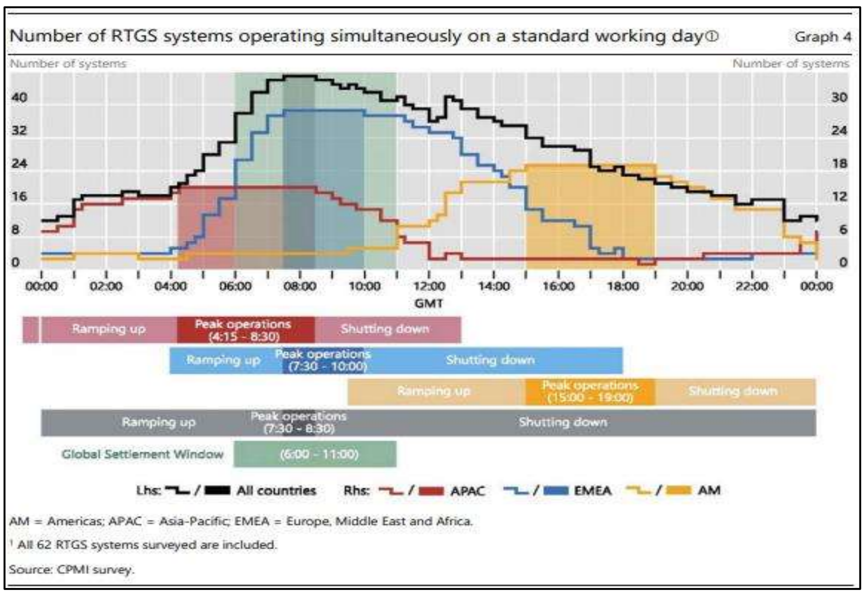

Figure 3. Regional Real Time Gross Settlement (RTGS) Operating Windows[8]

Settlement Risk and CLS

Settlement Risk, also known as Principal or Herstatt risk[9], is the risk arising from when a firm "pays away the currency being sold but fails to receive the currency being bought." Herstatt risk is so named from the 1974 bankruptcy of Bank Herstatt after receiving Deutsche Marks (DEM) and failing to pay away U.S. dollars. Mitigating the amount of daily FX Settlement Risk[10] has been a primary FX market focus since 1974 - from both market participants and regulators including the BIS[11]. Continuous Linked Settlement (CLS) Bank Intl.[12] mitigates Settlement Risk by a Payment versus

[5] NY Fed FXC January 2016 "FX Transactions – Execution to Settlement Recommendations for Non-Dealer Participants" https://www.newyorkfed.org/medialibrary/microsites/fxc/files/2016/fxc011916.pdf
[6] BIS Quarterly Review, December 2022 BIS Quarterly Review, December 2022
[7] BIS Triennial Central Bank Survey Daily FX Swaps and Forwards OTC foreign exchange turnover in April 2022 - Annex tables, revised on 5 December 2022 (bis.org)
[8] BIS CPMI May22 "Extending and aligning payment system operating hours for cross-border payments" https://www.bis.org/cpmi/publ/d203.pdf
[9] BIS – CPMI Feb13 "Principal risk", to mean the risk of outright loss of the full value of a trade resulting from counterparty failure (i.e. a bank pays away the currency being sold but fails to receive the currency being bought). Principal risk is sometimes referred to as "Herstatt Risk" Supervisory guidance for managing risks associated with the settlement of foreign exchange transactions (bis.org)
[10] BIS – CPMI Dec22 -Daily FX market Settlement Risk is $2.2tri – representing 30% of daily turnover. "FX settlement risk: an unsettled issue" FX settlement risk: an unsettled issue (bis.org)
[11] BIS - CPMI Jul22 "Facilitating increased adoption of payment versus payment (PvP)" https://www.bis.org/cpmi/publ/d207.htm
[12] CLS CLSSettlement in a day - how it works | CLS Group (cls-group.com)

Payment (PvP)[13] mechanism, akin to Delivery versus Payment (DvP) for securities and is shown below in Figure 4. Depending on the time of day the FX trade is executed, members of CLS Bank can settle FX trades via PvP for T+1 settlement for 18 global currencies.

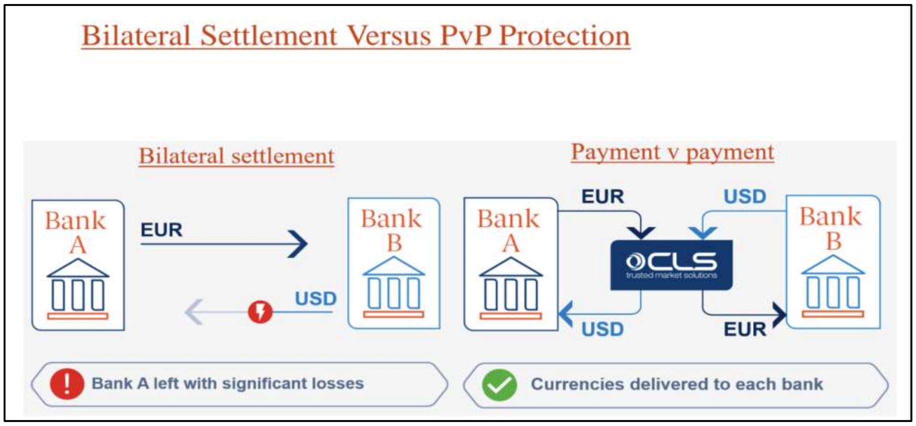

Figure 4 : Non-CLS (Bilateral) vs CLS (PvP) Transaction Source : CLS cls-unsettling-the-increase-of-fx-without-settlement-risk-mitigation-june-2020-final.pdf

T+1 - FX Trading for US Securities

The accelerated settlement window for US securities will **require a review of 1) the timing of the FX transaction in relation to the security trade and 2) full settlement process for both the FX and security trade.** When foreign investors transact U.S securities, they need to execute the FX trade to fund the purchase or sale in U.S. dollars from their local currencies. The acceleration of the U.S. securities settlement cycle to T+1, raises the risk that security transaction-funding, dependent on FX settlement, may not occur in time. Closer coordination of the timing and settlement for both the security and FX trade is needed to ensure there is adequate time available for the settlement and payment of FX trade for the T+1 security transaction. The FX trade lifecycle is already established for T+1 settlement, and is a process that includes execution, allocation, confirmation, and payment within local currency operating hours – adding another layer of complexity for meeting T+1 security settlement.

The two examples below help to identify some of the key considerations needed for executing FX for T+1 US securities trades.

1. UK-based Fund Manager

When a UK fund manager purchases a U.S. equity, (see Figure 5) they need to sell pounds (GBP) and buy dollars (USD) for T+1 value to settle the international equity transaction. The exact amount of currency needed to be purchased – USD in this example - is not known until the equity trade is transacted.

It is also important to consider the local currency cut-off times to ensure the payments are completed to settle the FX trade. Some equity trades are executed at "Market-On-Close" (MOC) in the U.S., meaning the equity trade is executed at 4pm EST/9pm London. The exact amount of currency needed to be transacted becomes known at that point.

Typically, a UK-based fund manager would cover the currency the following morning, which is now T0, and would need to ensure the USD will be paid to their counterparty the same day. GBPUSD is also a CLS enabled currency pair, and should be settled through CLS, where possible, to mitigate Settlement Risk for the trade. A T+1 settlement can be

[13] CLS Jun20 "PvP ensures the final transfer of a payment in one currency occurs if and only if the final transfer of a payment in another currency or currencies takes place."

affected if both the equity and FX trade are matched, without issue. However, the window for any trade remediation that may be required is substantially reduced.

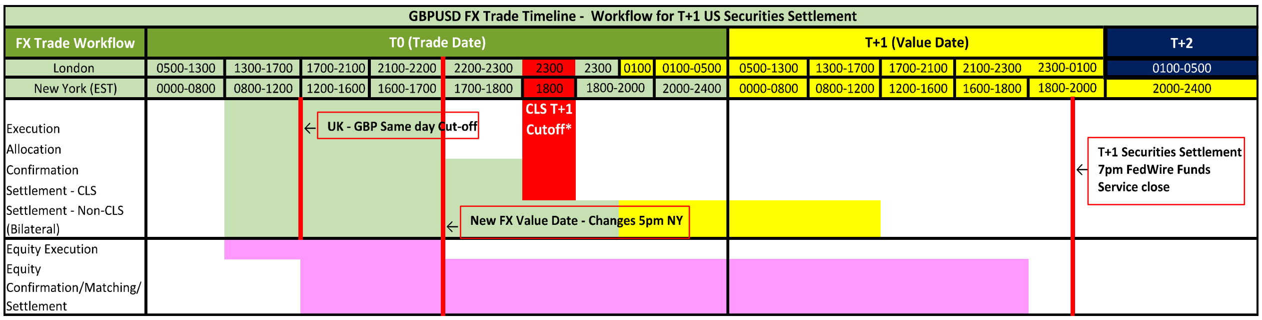

Figure 5- UK Based Fund Manager

2. Asian-based Fund Manager

An added complexity to the example above is for an Asian-based fund manager purchasing US securities, e.g., selling Hong Kong equity/purchasing a US equity. The International Date Line dictates that this transaction may be occurring close to or in some cases on T0 in Asia for T+1 U.S securities, e.g., the local Hong Kong market closes before the U.S markets open (see Figure 6). The ability to settle same-day FX trades inside of CLS is also limited, meaning the FX trade will have to settle outside of CLS and it's likely that it may incur Settlement Risk.

Some emerging and frontier market currencies may also have the added complexity of navigating local currency controls. These may include capital controls, restricted onshore/offshore market access and local currency exchange operating hours, all important considerations when transacting in emerging market (EM) currencies. The time zone challenge may also require a need to pre-fund the transaction, adding another potential layer of cost.

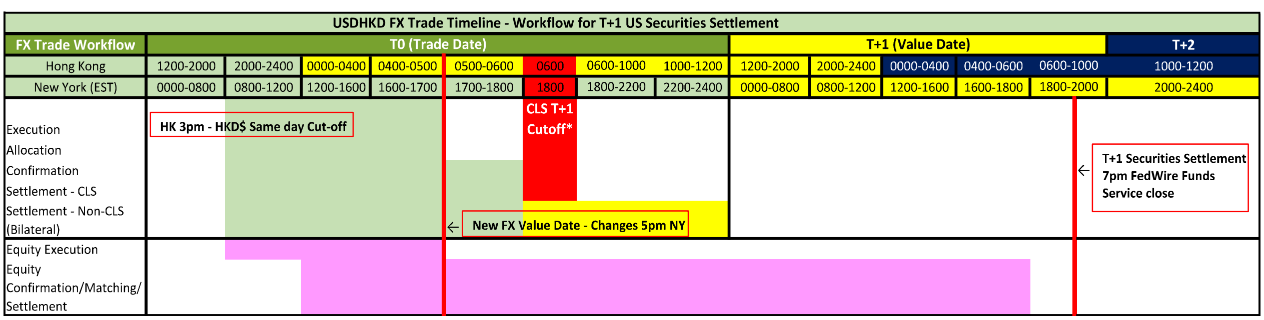

Figure 6- Asian based Fund Manager

Key Considerations:

1. **Local Currency cut-off times and holiday schedules –** FX settlement for local currency is governed by the combination of operating hours of the local central banks and operating hours of the commercial banks. This dictates local currency cut-off times and warrants a thorough understanding of the window of time available to execute the supporting FX trade for the corresponding securities transaction. Cut-off times are often different for each currency and are mostly governed by local RTGS hours (Figure 7 and Appendix Fig. 1 for additional jurisdictions) but also need to include correspondent bank networks for both the currency and counter currency. Awareness of any local (scheduled and unscheduled) holidays is also required, as local market closures could adversely affect the ability to settle T+1.

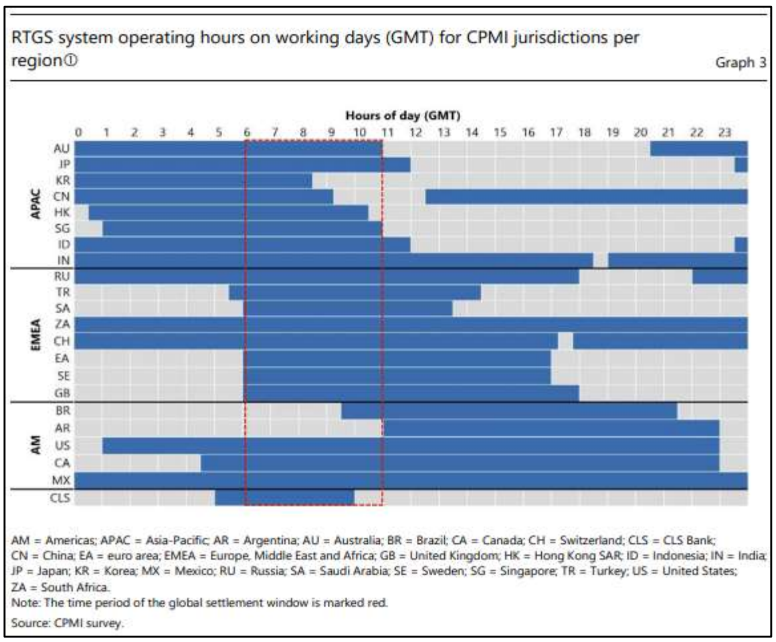

Figure 7. Real Time Gross Settlement (RTGS) Operating hours[14]

2. **Settlement Risk –** as mentioned previously, reducing Settlement Risk is a key priority for the supervisors and all FX market participants and is achieved by using PvP mechanisms such as CLS Bank. If the currency and counterparty are CLS eligible, and the trade is processed within the CLS timeline (see Appendix Fig. 2), T+1 FX trades can be settled inside CLS to mitigate Settlement Risk. The critical cut-off time for T+1 trades processed inside of CLS is 6pm NY/12am CET on T0. Commercial banks (and clearing agent banks) can often enforce their own cut-off times prior to CLS 6pm NY, to help ensure all trades are captured and processed into the CLS system. (See Appendix Fig. 3 How CLS works in the FX trade lifecycle.)

   FX trades that miss the CLS cut-off time can still be booked for T+1 value providing they are transacted before local currency cut-off times and will be settled outside of CLS therefore, whilst Settlement Risk mitigation can take place, this will not involve CLS and therefore likely to attract increased levels of Settlement Risk.

   While CLS takes away Settlement Risk, it is important to note CLS only covers 18 currencies, all other currencies (i.e., most EM currencies) may incur Settlement Risk and might need to have supporting credit lines

[14] Source: BIS CPMI May22 "Extending and aligning payment system operating hours for cross-border payments" https://www.bis.org/cpmi/publ/d203.pdf

to affect the trade. It is worth noting that whilst CLS is one PvP mechanism**,** others are also being developed to help mitigate FX Settlement Risk.[15]

3. **Local Currency Controls –** Some EM and frontier currencies include "restricted currencies" and may have the added complexity of capital controls and trading restrictions. These may adversely affect the ability to settle offshore and often need to be transacted through local trading exchanges. Understanding the timing and nature of these nuances for each currency is critical, as they may also require pre-funding, i.e., on T-1, to settle a T+1 US security transaction.

4. **Location and Capability of Trading and Operations –** Prioritizing the execution of the FX trade as close-in-time to the equity trade as possible can help to optimize the settlement process for U.S. T+1 trades. Therefore, the ability to have US-based trading and operations functions or extended operating hours may assist in effecting timelier FX and security trade execution and settlement. This would also maximize the time available for operations, especially to remediate any failed trades before the T+1 cut-off time. This option may not be readily available to buy-side market participants, however some European/UK based fund managers are establishing US-based operations to help ensure the smooth transition to the T+1 settlement process.[16]

   Consideration should also be given to the benefits of improving operational efficiencies, including investment in technologies that focus on the increased automation of processes, and to assessing the viability of using third-party vendors. Increased automation offers the advantages of operational efficiencies and could help to address the time-zone challenges mentioned above.

   Trading platforms could also see an increase in demand for multi-asset trading and settlement capabilities. Simultaneous execution and increased process automation of equity and currency trades in tandem will assist in expediting the confirmation and settlement process required to meet the T+1 deadline.

   FX Trading may witness an increase in client activity towards the end of the New York (NY) day for 4p.m. MOC equity-related orders. Historically, FX liquidity tends to be reduced into the NY close and before the Asian session opens, which should be taken into consideration when executing FX trades. Trading desks may also witness an increase in T0 FX trades – which may require added vigilance towards funding and settlement processes to ensure adequate funding is in place to support same-day settled trades.

   Fund managers also aim to offer "best execution" and price transparency for their clients, often using the WMR 11am NY/4pm London benchmark to execute FX trades for international equity transactions. The amount of FX to be transacted is dependent upon the confirmed and matched equity transaction, which may not occur in time for a benchmark trade for T+1 settlement. The risk of executing FX trades against unconfirmed/unmatched equity trades needs to be weighed up against the operational risks of increased trade amendments or cancellations.

5. **Operational Risk –** Increased Operational Risk may occur because of the shortened settlement cycle, which condenses the amount of time available to remediate any trade failures and still meet T+1 settlement deadline. The FX pre-trade lifecycle includes account opening, KYCAML checks, loading and verification of Standard Settlement Instructions (SSI's). The post-trade process includes trade allocation, matching, confirmation, and payment.

   FX Block trading for institutional clients will require added pre-trade vigilance for new account set-ups. T+1 will limit the ability for the sell-side to affect payments for T+1 or same-day account set-ups for new accounts. Meeting currency cut-off and settlement times will be challenged if new accounts are not established, and the loading of standard settlement instructions (incl. CLS eligibility) are not loaded in a timely fashion. Adopting

[15] BIS - CPMI Jul22 "Facilitating increased adoption of payment versus payment (PvP)" https://www.bis.org/cpmi/publ/d207.htm
[16] Ballie Gifford to open US offices https://www.thetradenews.com/multimedia/baillie-giffords-adam-conn-on-the-shift-to-t1-settlements/

automated client onboarding solutions may help alleviate this problem and to accommodate the demands of meeting T+1 settlement cycles.

6. **Potential Impact on Transaction Costs**
   i. Funding – Pre-funding may be required for certain transactions where there are time zone challenges, especially Asia. Pre-funding within the existing trade life cycle can add additional cost and call into question the economics of the investment in the underlying security.
   ii. Late Payment Fees - There is the potential for increased costs associated with any late payment and interest rate charges, amplified when in a higher interest rate environment. Additionally in an EU context any adverse cost impact resulting from late settlement fees under Central Securities Depositories Regulation (CSDR) rules[17] also need to be highlighted for European-based transactions.
   iii. Systems/Policies/Procedural Changes – Adequate time and consideration should be given to any modification to post-trade and trading support processes, and to promote the timing of the FX execution to occur earlier in the workflow. A review of the costs associated with revised processes and new systems (incl. new locations for operations and staffing), and any changes in policies and workflow procedures will all need to be well understood. The cost and complexity of upgrading existing systems is significant and need to be balanced with the long-term strategic benefits of developing improved capabilities to address accelerating settlement cycles.

7. **Adopting a Strategic Approach to Managing FX Risk –** Institutional buy-side market participants may consider adopting a strategic approach to FX trading, for example, by outsourcing their currency management to dedicated currency manager specialists. This offers an alternative approach to managing T+1 currency exposures by outsourcing the management of currency risk to specialists who have:
   - Trading/operations in the major trading time zones
   - Alternate passive or active currency strategies
   - 24-5 market access to wholesale FX pricing and liquidity management to assist with best execution and often utilize CLS to help lower market Settlement Risk.

The Future State

The accelerated settlement cycle is a theme that is growing in focus across global financial markets. The number of jurisdictions adopting or reviewing a move to T+1 securities settlement is growing. For FX, the development of digital currencies is taking this phenomenon one step further – towards T0 where the development of Central Bank Digital Currencies (CBDC's) and other forms of digital currency have the potential to settle continuously and instantaneously.

The advances in technologies such as distributed ledger (DLT), machine learning (ML) and artificial intelligence (AI) are also developing and in the future could provide alternative solutions to the challenges of T+1 U.S. securities settlements outlined above. The purpose of this paper is to help provide additional insight to the FX process involved in affecting a successful T+1 securities settlement and to help navigate these challenges using the current systems and infrastructures already in place.

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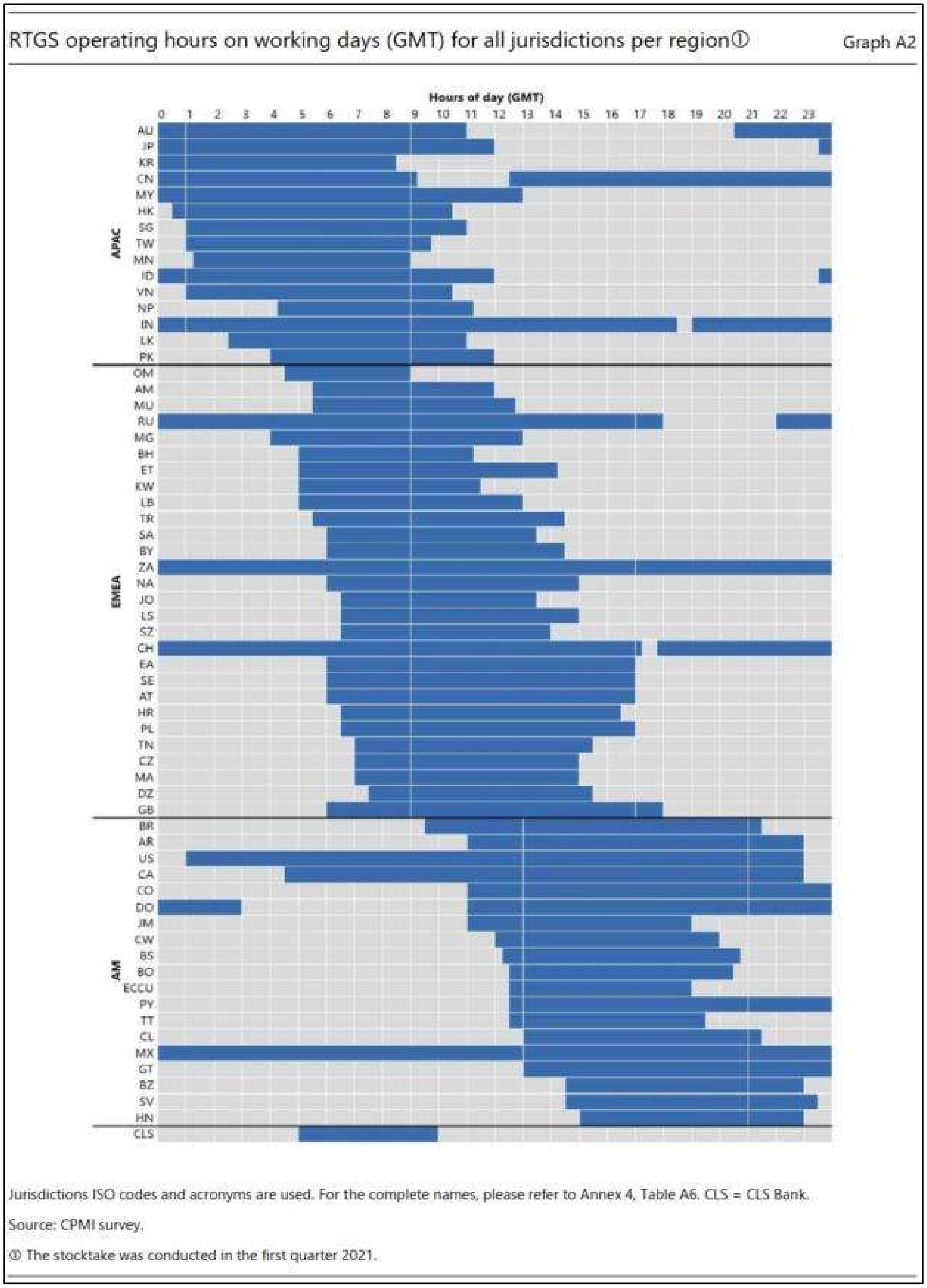
[17] DTCC "7 Things to know need to know about CSDR" https://www.dtcc.com/dtcc-connection/articles/2019/june/25/7-things-you-need-to-know-about-csdr

Appendix

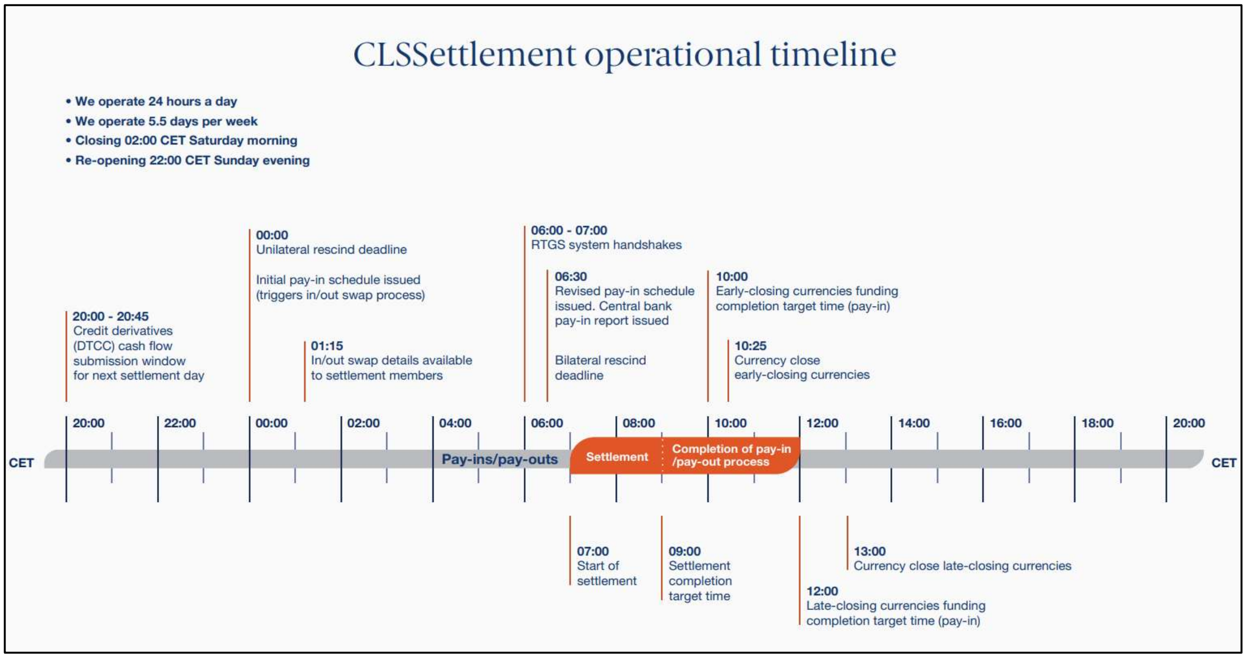
Figure 1 RTGS Operating Hours - All Jurisdictions



BIS CPMI May22 "Extending and aligning payment system operating hours for cross border payments."

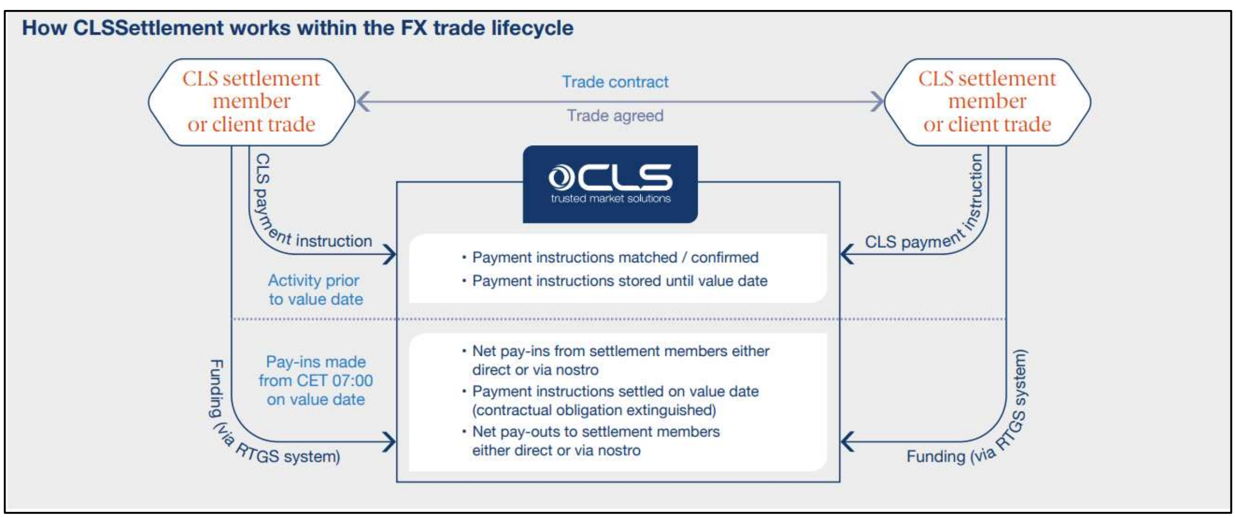
Information Classification: Limited Access

Figure 2 CLS Operational Timeline



Source: clssettlement_overview_feb2022.pdf

Figure 3 CLS Settlement Cycle



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