

Beyond T2S

Optimising liquidity management in securities settlement



With the introduction of TARGET2-Securities (T2S), the settlement of securities in participating markets becomes real time and requires upfront funding in central bank money. Settlement Providers who act as T2S Payment Banks are required to anticipate their liquidity needs to facilitate the securities settlement process. This whitepaper explores four key aspects of the liquidity management process for investors and their service providers: liquidity challenges in T2S; liquidity benefits of T2S architecture; additional liquidity solutions T2S might facilitate; and solutions beyond the scope of T2S that could nevertheless help to simplify and alleviate liquidity challenges for T2S participants.

The architecture of T2S helps in the process of liquidity optimisation in specific ways that the paper outlines. It also considers how reporting requirements relating to T2S can be accommodated and looks beyond the platform itself for additional techniques that custodians and other T2S service providers may be able to offer to mitigate broader liquidity constraints.

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Introduction

Cross-border securities settlement in Europe has, over the past two decades, required links through a chain of intermediaries from the investor down to a national Central Securities Depository (CSD) on the one hand and a national Central Bank (NCB) on the other. The last links in this chain have traditionally been handled by a local custodian with direct membership at both of these market infrastructures. Settlement has typically taken place in Central Bank money (CeBM) at a market level (between the custodian and the CSD and Central Bank) and in commercial bank money at a client level (between the custodian and its client).

Over the past few years, a stronger emphasis on risk management in the design of market infrastructure has been reflected in the shift towards real-time gross settlement (RTGS) in large-value payments and delivery versus payment (DVP) in securities settlement, both associated with greater liquidity pressures on participants.

With the introduction of TARGET2-Securities (T2S), the settlement of securities in participating markets becomes real time and requires upfront funding in CeBM. In this regard, T2S offers custody clients a choice: to settle in the client's CeBM through its own Dedicated Cash Account (DCA) or via the custodians DCA/Custodian CeBM. So far clients have yet to demonstrate a particular preference, though the availability of these options has yet to be marketed. Custodians will nevertheless need to show flexibility to accommodate whatever approach the client ultimately adopts.

Evaluating liquidity requirements and opportunities

Settlement Providers who act as T2S Payment Banks are required to anticipate their liquidity needs to facilitate the securities settlement process. In this context, how can more effective allocation of cash and richer funding opportunities best be achieved?

In exploring answers to this question, the second in our whitepaper series focuses on four key areas:

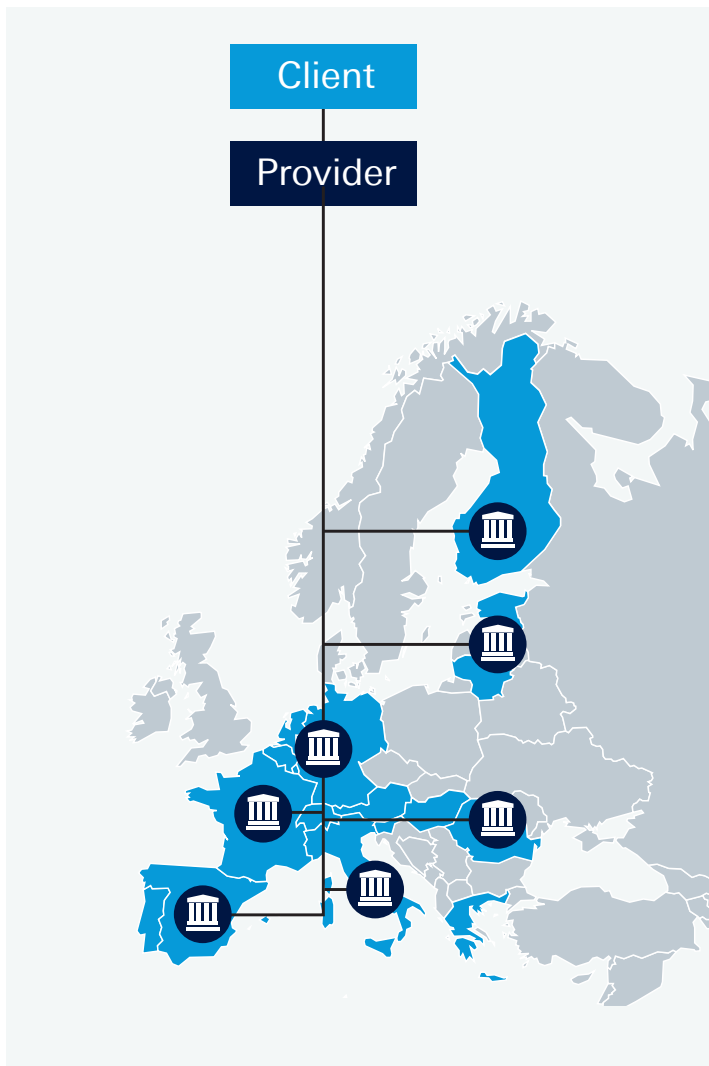
- liquidity challenges in T2S;
- liquidity benefits of T2S architecture;
- additional liquidity solutions T2S might facilitate; and
- solutions beyond the scope of T2S that could help to simplify and improve liquidity

THE
ARCHITECTURE
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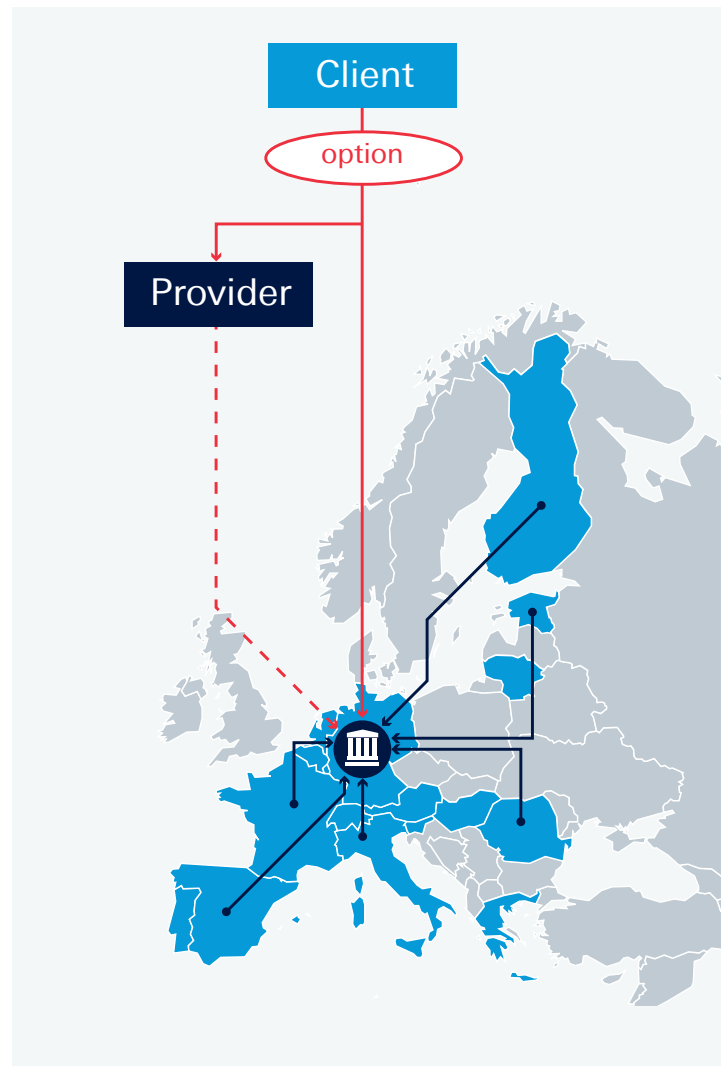
Liquidity challenges in T2S

Before the implementation of T2S, liquidity buffers were held discretely in each market. This involved bilateral arrangements between clients and providers for intraday liquidity provisioning. With the rollout of T2S, firms that rely on intraday liquidity are looking at ways to minimise the liquidity they use from providers, particularly in light of the progressive implementation of new regulatory requirements. Several of these have their own impact on liquidity needs. Such regulations include, but are not limited to, Basel III, the Liquidity Coverage Ratio (LCR) and the Supplementary Leverage Ratio (SLR).

Pre T2S



Post T2S



Regulations impacting liquidity include, but are not limited to Basel III, the Liquidity Coverage Ratio (LCR) and the Supplementary Leverage Ratio (SLR)

i BASEL III

Basel III is a framework of global regulatory standards on bank capital adequacy and liquidity agreed by Central Bank Governors and Heads of Supervision and endorsed by the G20. Its aim is to ensure higher and better-quality capital, better risk coverage and a build-up of capital as a buffer in times of stress.

The Basel Committee on Banking Supervision (BCBS), in consultation with the Committee on Payment and Settlement Systems (CPSS) has developed a set of quantitative tools (BCBS 248) to enable banking supervisors to monitor the intraday liquidity risk of banks under their supervision and the ability of those banks to meet payment and settlement obligations under both normal and stressed conditions. According to the BIS, The new Basel III liquidity rules mark the first time that specific global quantitative minimum standards for liquidity have been introduced.

ii LCR

The liquidity coverage ratio is designed to ensure financial institutions have the necessary assets on hand to ride out short-term liquidity disruptions. It does this by ensuring that banks have an adequate stock of unencumbered high-quality liquid assets (HQLA) that can be converted easily and immediately in private markets into cash to meet their liquidity needs for a 30 calendar day liquidity stress scenario.

iii SLR

The Supplemental Liquidity Ratio (SLR) is a non-risk-based measure intended to be a “backstop” to the risk-weighted capital requirements under Basel III. It limits the amount of leverage that a banking organisation may incur.

Liquidity Benefits Of T2S architecture

The architecture of T2S itself helps in the process of liquidity optimisation in four specific ways: by introducing the option of a single dedicated cash account (DCA) with a participating Central Bank; through its Auto-Collateralisation facility; by technical netting; and the use of an overnight settlement cycle (See below).

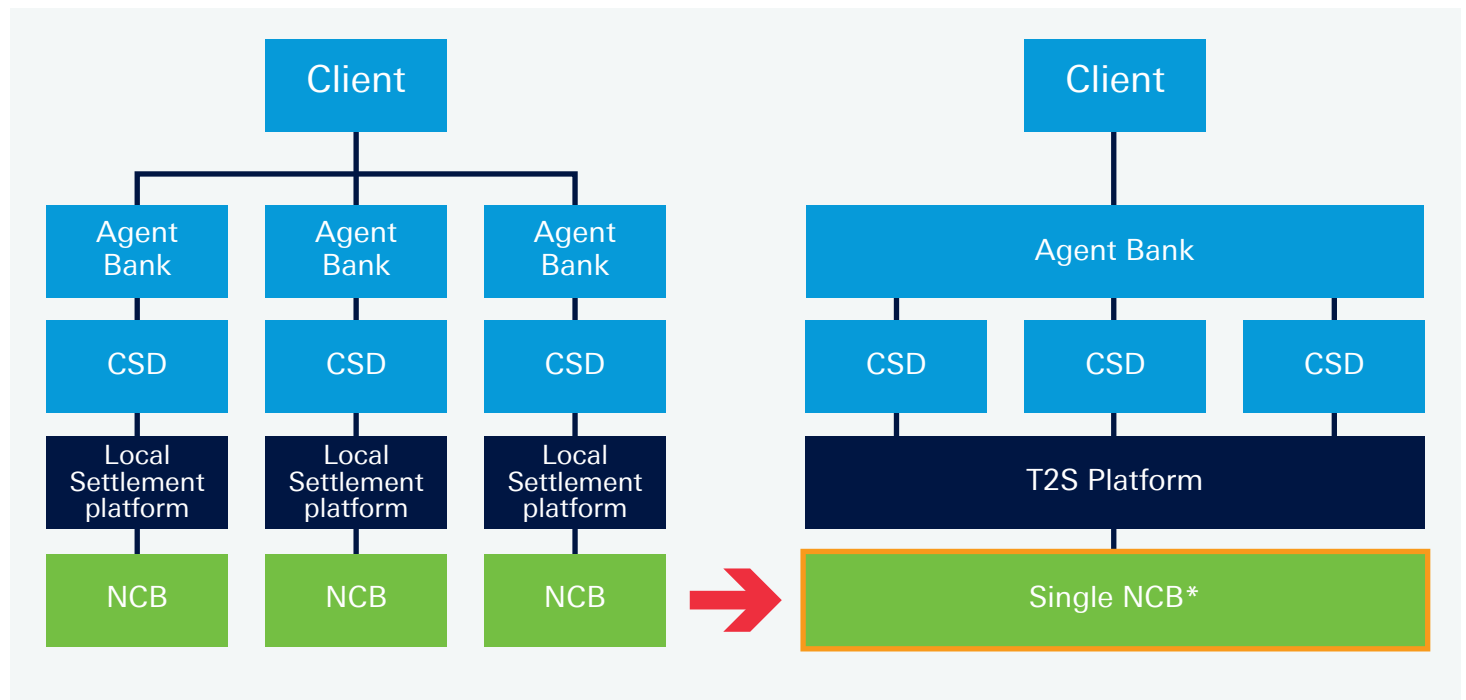
The first of these does away with the need for multiple euro cash accounts with different Central Banks in the Eurozone. Only one euro Central Bank cash account – the dedicated cash account (DCA) – is sufficient for all T2S transactions to settle in all T2S markets.

In addition, both securities accounts and cash accounts are integrated on a single IT platform. The platform accommodates both the market participants' securities accounts, held

at either one or multiple CSDs, and their dedicated cash accounts (DCAs) held with their respective national Central Bank exclusively for settlement in T2S. DCAs are in turn linked to a cash account in TARGET2 via the relevant Central Bank. The use of this model allows T2S to connect any securities account at a participating CSD with any cash account at any participating Central Bank (See Diagram 1).

Pre T2S

Post T2S



*Facilitates a Single central bank funding for all T2S markets

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Liquidity optimisation in T2S

T2S aims to improve settlement rates by offering a number of optimisation features:

Technical netting

Technical netting reduces the need for cash and securities by grouping transactions into a set and calculating the net quantities and amounts to be settled on an all-or-none basis. These net quantities and amounts are the basis for the checks against the available resources and assessment of intraday credit required.

Partial settlement

Partial settlement enables splitting of transactions where only limited resources remain available, provided the settlement instructions agreed by the counterparties allow for it.

Settlement optimisation algorithms

These favour the settlement of transactions with a higher level of priority, followed by the oldest intended settlement date, in a way that maximises the volume and value of settlement. Optimisation algorithms examine all transactions in different ISINs to identify chains.

Auto-collateralisation

Auto-collateralisation is a cost efficient way to create additional intra-day liquidity, using the value of securities on flow (securities receipt transactions) and on stock (securities holdings). By flagging these for auto-collateralisation usage, T2S allows the transformation of the stock value into extra intraday liquidity on the respective DCA. This, in turn enables RvP securities transactions to settle without the need to fill the lack of cash on the related DCA through a liquidity transfer from a T2 account.

Auto-Collateralisation consists of two types: one involving credit provided by the central bank to the payment bank (DCA account holder); and a second, client collateralisation, where the payment bank (DCA account holder) provides credit to its clients. By facilitating optimal usage of liquidity and securities, auto-collateralisation is expected to significantly decrease banks' liquidity needs and borrowing costs as well as the number of failed instructions.

The availability of these techniques will, to some extent, depend on clients' account preferences. Deutsche Bank clients can, for example, choose whether to settle in their own CeBM and take other services from the Bank or they can settle in Deutsche Bank's CeBM and enjoy other benefits attached to this, such as the bank's prefunding service and its own credit lines with the Bundesbank.

Impact of overnight settlement cycles

T2S has adopted the use of an overnight settlement cycle to settle the majority of transactions. For the period September-December 2015, T2S settled, on average, 1.87 million securities transactions per month. Some 76% were settled overnight, compared to 24% intra-day. The result of this is to substantially reduce intraday liquidity requirements.

Additional liquidity solutions T2S might facilitate

Reporting

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- i** **General reporting requirements**

In order to manage liquidity efficiently T2S participants require appropriate real time intra-day reporting that allows for proper cash forecasting, calculating their liquidity needs and catering for respective liquidity transfers into their DCA account, in a timely and automated manner.

T2S participants also show different requirements when it comes to reporting formats; some are SWIFT ISO20022 compliant, whilst others require SWIFT ISO15022 messages and some may have specific additional reporting needs.

 - ii** **T2S reporting offering**

Connectivity choice to T2S for both securities accounts (SAC) and DCA accounts has an important bearing on reporting options. Participants can choose whether to connect as an indirectly connected party (ICP) or directly connected party(DCP) for both their SAC and DCA accounts. The type of T2S connection (ICP or DCP) triggers the reporting that participants receive. Liquidity reporting for DCPs comes in ISO 20022 format, while ICPs will receive reporting in the CSD's existing format usually ISO15022.

 - iii** **Service providers' reporting offering**

Liquidity reporting today already forms part of the service providers' core service offering and is provided to clients via SWIFT, web-tools and other formats, according to clients' needs and service providers' flexibility.

When it comes to reporting requirements, "real-time" is key in two ways: it enables efficient management of intra-day liquidity and allows clients to meet regulatory demands. Service providers must stay flexible to meet these client demands.
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LIQUIDITY
REPORTING TODAY
ALREADY FORMS
PART OF THE SERVICE
PROVIDERS' CORE
SERVICE OFFERING

Solutions beyond the scope of T2S

While interaction with T2S involves specific liquidity-related operations that participants will need to address on a daily basis, the broader objective of liquidity optimisation may be enhanced by drawing on techniques that, while beyond the scope of T2S as a platform, may help alleviate liquidity demands.

The availability of collateral optimisation tools allows for the creation of new flow financing solutions (“Flow Financing”) to provide working capital liquidity to financial intermediaries. Clients such as broker dealers, who may have limited access to unsecured finance [due to regulatory pressure] could benefit significantly from Flow Financing. Deutsche Bank is working with a number of broker dealers to realise this potential.

Flow Financing

Flow Financing is a potentially cost-effective tool available through an agent bank provider. It allows the agent bank, to advance cash against long securities in a client’s account (which may be in transit). This is effectively a form of overnight repo which allows the securities to be available for the next daylight settlement cycle. This is cost efficient for the client and the agent bank. To illustrate the benefits, we provide two examples of a broker dealer client of an agent bank.

Example 1. Failed trade financing

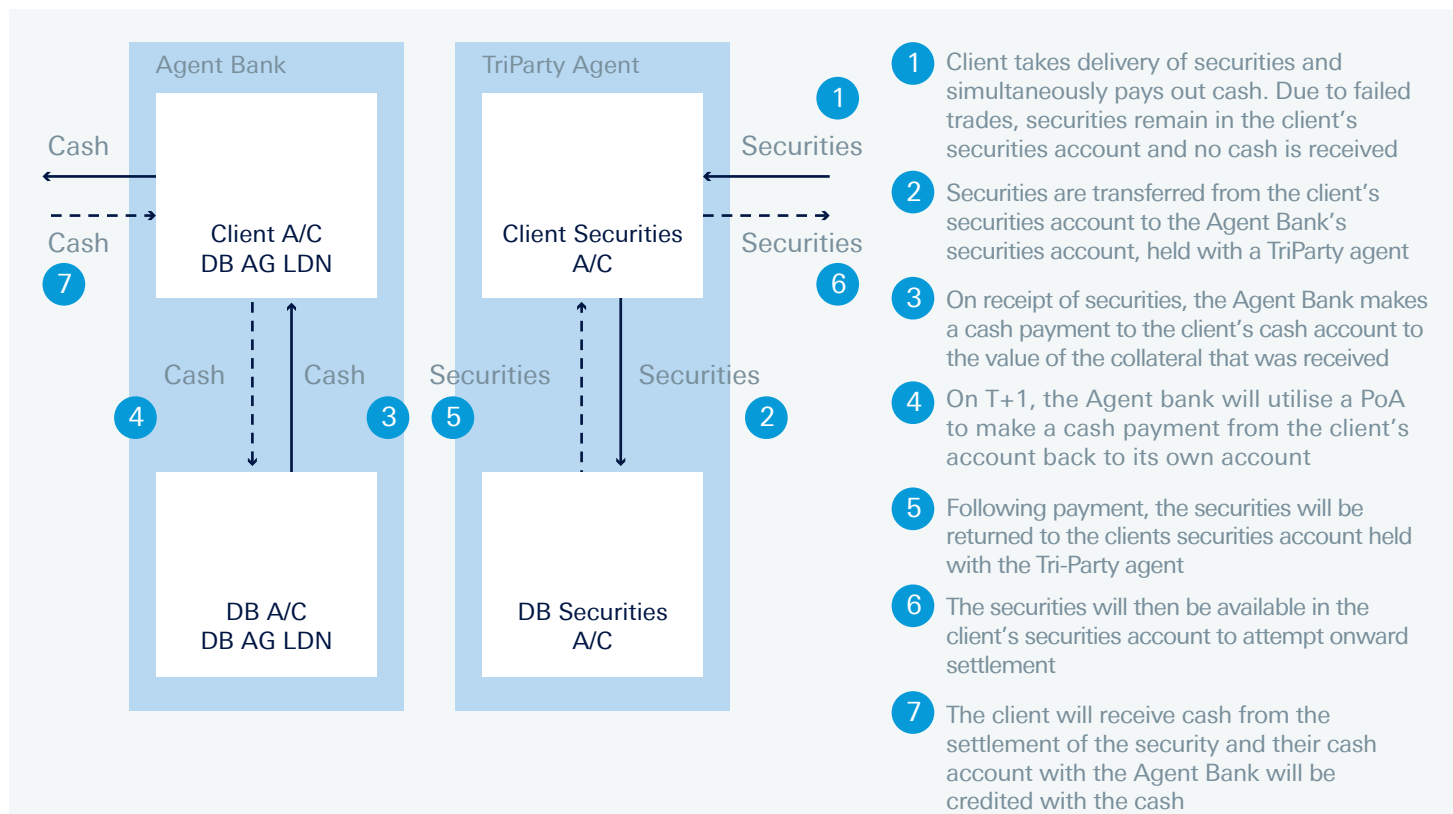
Assume the broker dealer has a securities account and a cash account with the agent bank that acts as its custodian. For every sell trade, the agent bank delivers securities and receives cash, while for every buy trade; it receives securities and delivers cash.

The broker dealer would normally be flat securities at the end of each day and will hold some residual cash in the cash account. On most days, however, the client has securities remaining in its account as some trades will not have settled. In this event, the anticipated cash would not have been received in the client’s cash account, which would consequently be in debit. The debit position creates credit risk for the agent bank and has cost implications for the client as the agent bank levies overdraft fees to cover the balance sheet costs of this risk.

As the broker dealer will normally have title to the long securities in its securities account it could try to repo the securities overnight to raise cash and offset the debit balance. In practice this is not possible as i) repo markets will have effectively closed some hours previously ii) there is limited appetite for overnight repo and iii) the cut-off times for interbank cash payments mean end-of-day financing is only possible using intrabank cash payments.

The solution in this example is a flow financing transaction whereby the broker dealer and agent bank enter into a financing agreement. The bank utilises long securities in the securities account as collateral and provides short term cash to the client, equal to the value of the securities, minus a haircut (a percentage point discount on the asset value). This reduces the overdraft and offers a cost effective and efficient balance sheet trade for both the bank and the broker dealer client. The trade is then reversed out first thing the following day.

Diagram 2 [Flow Financing visually demonstrated]



Example 2: Time Sensitive Obligations

In this example similar to the one above, the client (typically a broker-dealer) has an obligation to meet a time-sensitive payment (e.g. a margin call, CLS Pay-in etc). Such payments are part of the daily transaction flow of the client's business. The client typically holds sufficient cash to meet these obligations, but may be unable to get the cash to the settlement bank in time owing to tight operational constraints and challenging time-lines imposed by the market infrastructures.

Clients can benefit from flow financing solutions that allow the settlement bank to use repo-like instruments to facilitate intra-bank payments secured by agreed collateral. The collateral is transferred via title transfer or pledge using tripartite infrastructures or via seamless collateral mobility solutions enabled by the harmonisation and simplification offered by T2S.

This allows the institution to outsource its time-sensitive operational obligations whilst focusing on core treasury and funding activities.

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What is the future outlook?

Clients should also be looking ahead to future requirements. How, for example, will the advent of a multicurrency environment affect the benefits of cash pooling in T2S? Although the benefits for euro will remain, pooling benefits across multiple currencies will not be possible in the T2S platform alone, since separate DCAs will now be required for euro and other currencies. Multiple central bank relationships will therefore continue to be needed. Clients should look to work with their providers now to develop solutions to their liquidity needs in the multi-currency environment.

Bringing T2 and T2S closer together

The Eurosystem is exploring synergies between T2 and T2S with the aim of developing a pan-European instant payments solution and assessing the possibility of harmonising and improving collateral management arrangements in the Eurosystem.

In order to successfully achieve a harmonisation of the two platforms, it is imperative that the industry works together, considering the needs of all key industry stakeholders.

A first review of industry participants yielded the following needs:

- Stabilisation of the T2S platform before considering a merger with T2
- The inclusion of key T2/T2S industry stakeholders in the dialogue on a potential platform merger
- A clear and well prepared time line
- Consideration of messaging format(s), including a view on digitalisation
- Consideration of non-operational T2 holidays and world-wide time-zone needs in light of the required operating window of the T2S securities business

Conclusion

Although complex, liquidity management can be simplified with the help of specific tools available within T2S as well as tools provided by the client's agent bank, which are complimentary to the technical platform. Experienced agent banks are well positioned to help guide clients in this regard. Clients should consider the ideas contained within this paper as potential contributors to alleviating liquidity pressures in a post T2S environment.

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