



White paper

**Rewiring securities
post-trade**

Challenges and
opportunities in
the new order

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A transformation in three phases

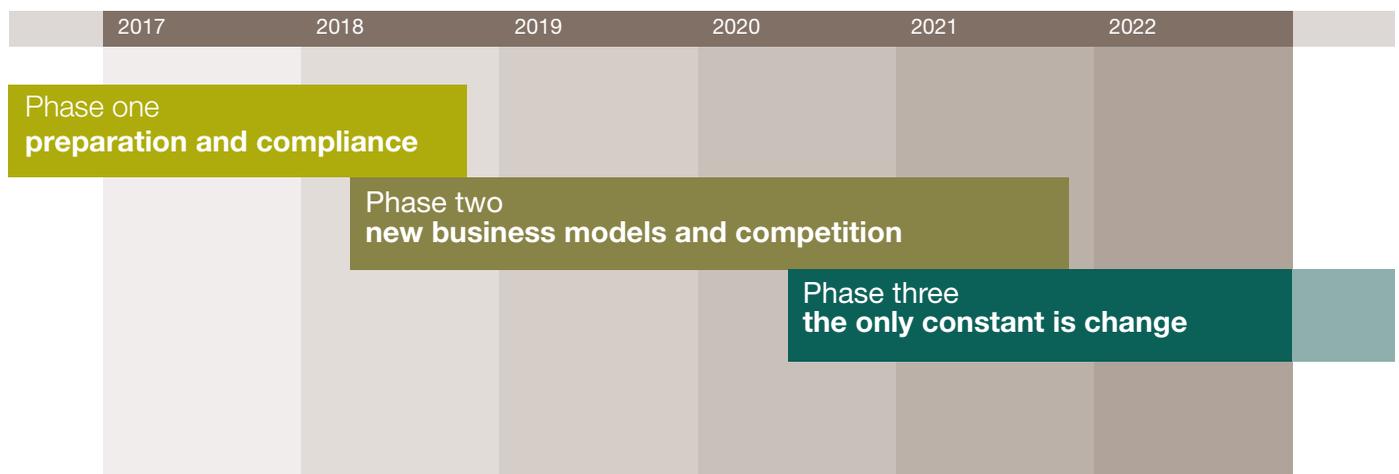
Securities post-trade in the Eurozone is undergoing a major transformation. TARGET2-Securities (T2S) and the CSD Regulation (CSD-R) are having a profoundly disruptive impact on securities processing operations. Although both of these imperatives seek to boost competition, increase efficiency and improve risk management, in practice they are likely to commoditise securities settlement, remove geographic borders and transform how market participants interact. Here we analyse the drivers and phases of change, and consider the impact on existing business models and operations.

Although the transformation of securities post-trade is inevitable, it will take time to be fully realised. Based on extensive consultation with industry participants, we envisage a three-phased transformation of the post-trade securities landscape over the next five years.

In reality, these three phases will overlap because market participants set out from different starting points and have independent implementation schedules – for example, although the first wave of migration to T2S started in 2015, the final one will not happen until Q3 2017.

Nevertheless, these phases usefully illustrate the work that needs to be accomplished and the likely impact that each phase will have on the securities post-trade industry.

Securities post trade processing will evolve in three transformational phases over the next 5 years.



Phase one – preparation and compliance

All market participants need to adapt their business organisation and their operations to cope with the environment created by T2S and EU regulations such as CSD-R.

In this phase, all market participants must prepare carefully for their migration to T2S, as well as compliance to CSD-R and the mounting body of other compliance initiatives that are starting to impact securities post-trade, including MIFID II and MIFIR.

Among these new regulations is CSD-R, whose overarching objective is to improve the quality of securities post-trade by ensuring the CSDs are risk free and by establishing a settlement discipline regime throughout the European Union.

CSD-R sets out a number of measures that will have a profound impact on the authorisation and governance of CSDs. These will affect the operations and business organisation of all market participants operating in securities post-trade throughout Europe.

First, CSD-R defines a new framework for CSDs, which includes extensive rules that CSDs must adhere to in order to be authorised to operate in Europe, as issuer and/or investor CSD.

For example, the framework includes a definition of 'fair and transparent' eligibility criteria, which will increase competition between CSDs, because CSDs can accept participants and issuers from across all of Europe, including those domiciled outside their traditional home market.

To achieve greater settlement efficiency, CSDs are also encouraged to develop delivery – versus-payment (DVP) links with one another, and must offer omnibus and segregated accounts to their customers, which may be challenging in cross-CSDs links because these two types of accounts are not managed or even defined the same way across all jurisdictions.

ECSDA recently published a report on the number of links between CSDs. Only a few show any substantial activity, with the notable exception of the bridge between Clearstream

Banking in Luxembourg and Euroclear Bank in Brussels which existed long before this new legislation came into play.

The concept of cross-border CSD membership is not new, but it has never really taken off. However, as global custodians or investment banks start to consider the T2S zone as a single market, things are beginning to change, and they are starting to open accounts directly with CSDs across Europe, rather than go through a local or regional custodian.

In practice, CSD-R and T2S signify a new era for CSDs: it forces CSDs and ICSDs to re-define their value propositions and business operating models. Ultimately, competition between them will be constrained by technology and the ability to seize new business opportunities.

Although increased competition may be a worthy goal, the time and effort needed to prepare and implement the required changes are significant. This compliance phase will certainly continue to span 2017 and 2018, but it may well extend longer, while CSDs and their own customers choose how they wish to participate in the new securities environment.

Since CSD-R's remit is Europe, industry participants will need to make a number of strategic decisions that are not limited to the Eurozone. Although the current focus is on those markets that have moved to T2S, all transactions that include a counterpart in the EU or an EU instrument will ultimately be impacted by CSD-R.

Clearly such decisions will have a significant impact on an organisation's operating model and business processes. Coupled with the impact of regulation, which obliges market participants to re-engineer their back-offices, this preparatory phase will consume considerable resources including management time, IT budget and regulatory expertise leaving little opportunity for innovation in service until phase 2.

Phase two – new business models and competition

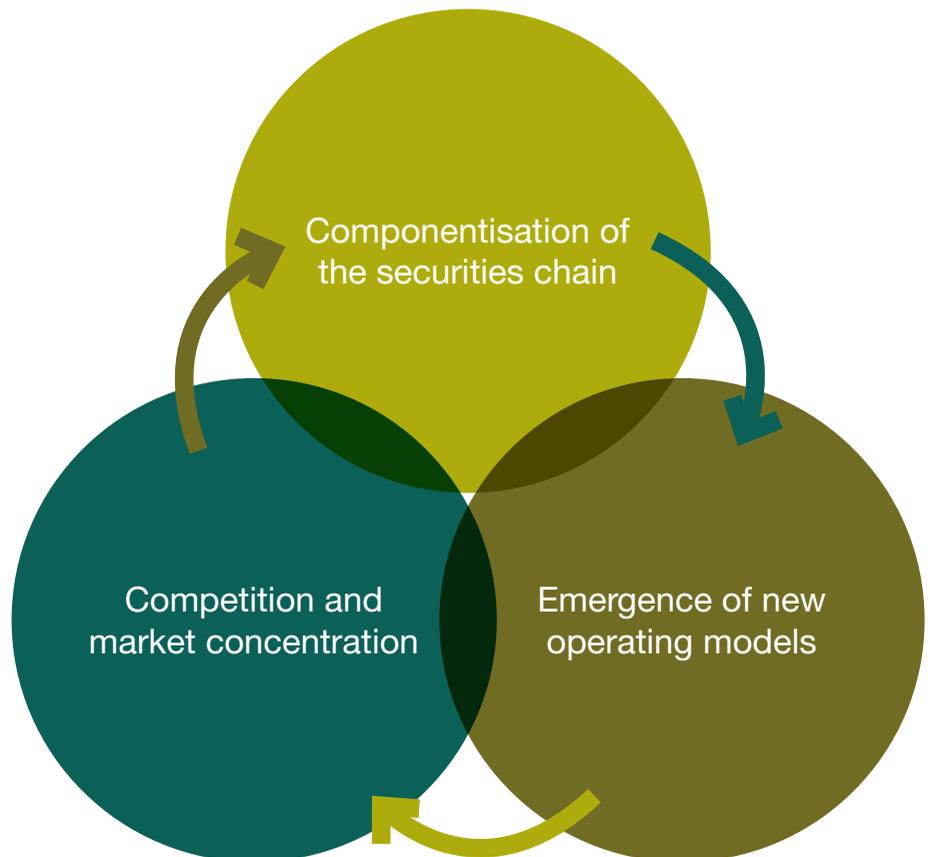
Market players evolve their value proposition and start developing new strategies taking advantage of the new environment, turning challenges into new opportunities.

As the changes described above take effect, and the roles of settlement and service providers begin to evolve, new strategies and operating models for post-trade will start to appear in a second phase. Although some institutions have already made moves and announced their plans, we expect the majority to start to do so in 2018.

A key change will be that, because T2S now executes settlement on behalf of CSDs and their participants, certain post-trade functions will begin to disaggregate. This means that the different “classic” functions of securities post-trade, including custody, settlement, collateral services and account management

functions – could be performed separately from settlement.

This separation of functions is likely to have three significant consequences. The first is the emergence of a ‘component-based’ approach rather than the traditional end-to-end securities transaction chain. The second is the emergence of new operating models, and the third is the concentration of activity among fewer participants, each playing different roles along the chain, and potentially organising themselves into regional hubs.



New operating models

As in any other industry, growing complexity coupled with increasing competition will lead to the emergence of new ways of working and new business models.

Existing providers of securities services will need to make informed strategic choices. For example, they may decide to maintain status quo; become routers of transactions on behalf of other players; repurpose the business around transaction processing, or provide regulatory reporting services to their local transaction community.

We expect this second phase to be an exciting period in post-trade: new partnerships and collaboration models will begin to emerge between ICSDs, CSDs and custodians, designed to serve their customers jointly. Today, all CSD's in Europe assume the roles of both an issuer and/or an investor CSD. But given the cost and complexity of managing the level, some broad network of agents and links that are necessary to operate as investor CSD at a European level, some CSDs may decide to specialise in order to be successful in a more competitive market.

A second level of choice for CSDs and custodians is to decide on the territory in which they will operate. Some CSDs have already clearly indicated their ambition to become a true European hub such as Euroclear France (ESES) and Clearstream Banking Frankfurt. Others seem to contain their ambition to their

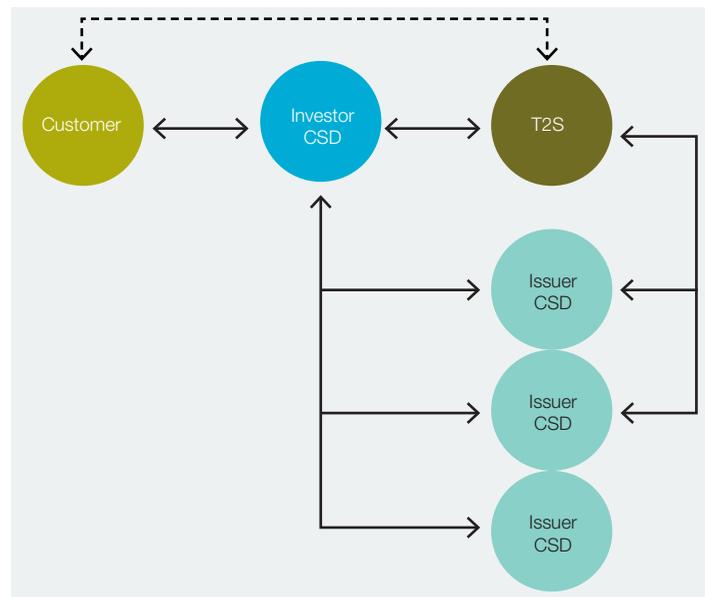
domestic market or to develop regionally to cover a handful of markets.

The combination of these choices leads to a number of business models selected by CSDs, ICSDs and custodians and offered to investment banks and investors. Alongside the classic ICSD's and regional custodians' multimarket offers, we see CSDs developing an investor CSD network, based on issuer CSDs and agent banks, the emergence of an account operator model combining agent banks and CSDs, issuer CSDs offers as well as more synergies between ICSDs and CSDs capacities.

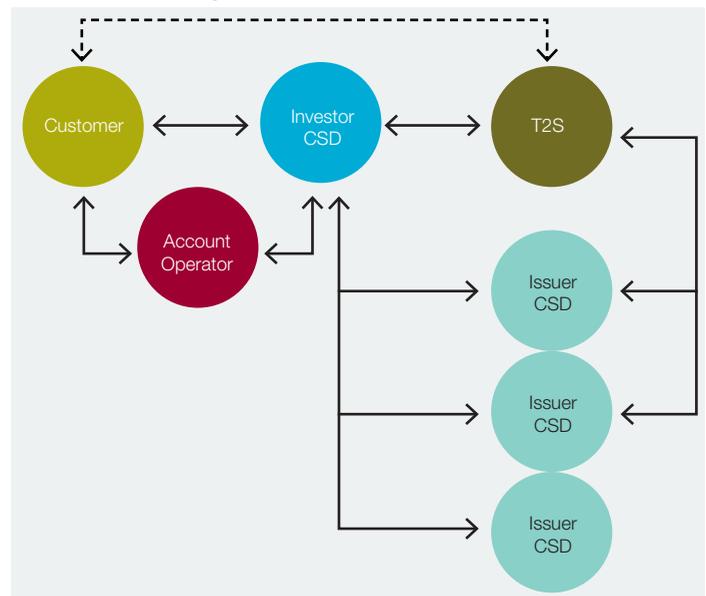
But the success of these different business models will ultimately be determined by competition and customer choice – the decisions made by investment banks, global custodians, broker/dealers and investment managers, and of course issuers.

The combination of T2S and CSD-R pushes CSDs, ICSDs and banks to combine their offering differently, creating new partnerships to serve their customers.

Regional investor CSD



CSD & account operator



Competition and concentration

Over time, we expect that increased competition and the overlap of roles between custodians and CSDs will reshape the market. This may also lead to the emergence of strong regional hubs – where there are synergies to be made through common requirements and ways of working – which include banks, CSDs and CCPs in regions such as the Nordics or Eastern Europe.

In 2016, more than 50% of all securities messages (over SWIFT) in the Eurozone were processed through a handful of (I)CSDs and custodian hubs. Of course, T2S itself has now also become a major new European transactions hub.

In the short to medium term, given their considerable weight in the market, it seems likely that these hubs will remain and even strengthen their positions. They will do this by creating economies of scale, leveraging their operations and networks, and by drawing on their expertise in managing multi-market operations, their ability to comply with complex regulatory challenges. Some hubs will also exploit their access to large pools of assets to offer new securities financing and collateral management services.

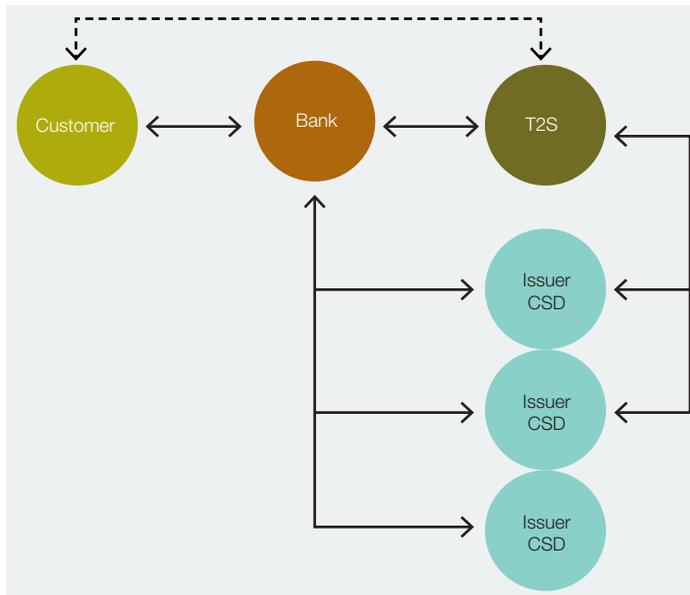
Other post-trade participants will differentiate by offering the basic but highly cost effective services in their home markets. Others may decide to focus on specialised, value add services, for example asset servicing only.

The new competitive order for securities post-trade is not limited to T2S CSDs. Other EU players, including regional custodians may develop models to capitalise on new opportunities provided by CSD-R.

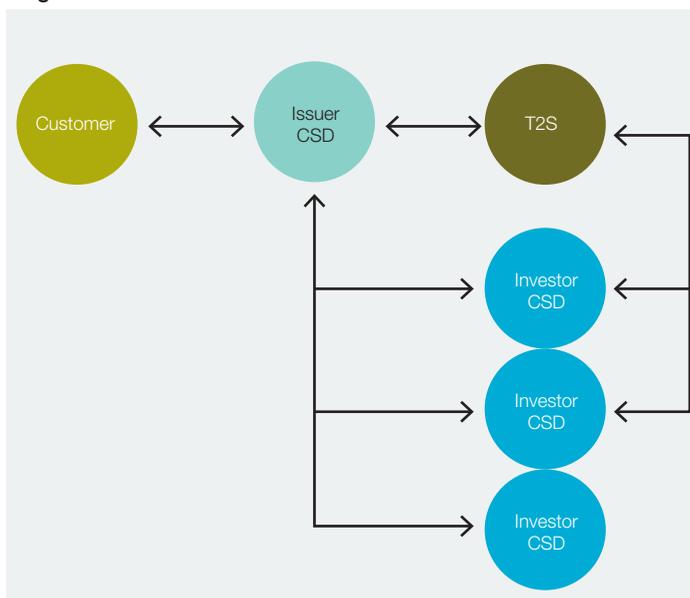
While a great deal of business innovation will be enabled by T2S and CSD-R, some of the legal and practical barriers, which were previously identified by the Giovannini report and then by the European Post Trade Forum, will remain after their implementation. For example, the lack of a harmonised securities legal framework in Europe means there is still then need for bespoke country-based specificities. Dealing with all this local complexity means that even the most successful players will not be able to operate seamlessly in isolation from one another.

Ironically, although it was claimed that CSD-R and T2S should ultimately lead to a reduction in the number of financial infrastructures in Europe, it also seems unlikely that we will see any Eurozone CSD's disappear over the next few years. Although CSDs have outsourced their settlement business to T2S, and they may give up or lose the provision of other services to alternative providers, local legislation and governance means that ultimately they must always play the notary role in their respective markets.

Bank offering asset servicing only



Regional issuer CSD



Componentisation of the post-trade securities chain

Because T2S absorbs all settlement activity, CSDs that move to T2S have no choice but to redefine their systems and operations to extract settlement processing and reorganise their other post-trade activities.

One consequence of this is that some activities, such as asset servicing or collateral management, will be carried out independently from each other and could ultimately be offered as separate services by different providers.

Although it has always been possible for CSDs and custodians to provide tailored services, we expect that this will become even more the norm in this new environment.

Thus, we expect some CSDs and custodians to focus on their core capabilities, while others will choose to differentiate by offering new value added services.

Custodians, such as Société Générale, BNP Paribas Securities Services, Deutsche Bank or BBVA, may also follow suit and decide to unbundle certain functional components of the securities chain, and then offer these as standalone services, either directly to their customers or through business partners.

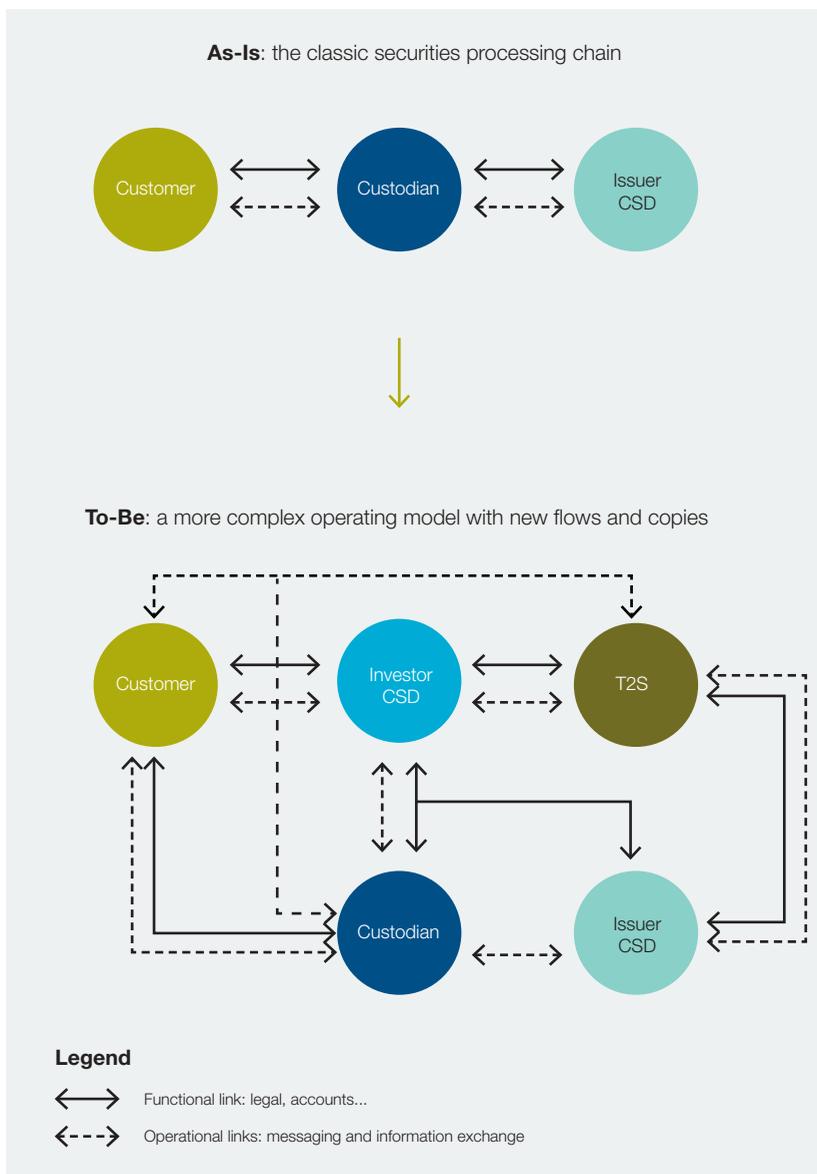
This marks a change from traditional post-trade, where a service provider's ability to offer competitive services was usually linked to the number of transactions settled or the amount of assets held under custody.

However, there are consequences in this unbundling of services. For example, a CSD or custodian bank will not be able to provide collateral management services without being fully aware of the latest settlement and custody positions of the clients benefiting from that service. Even though services are unbundled, there will be a great deal of interdependency between providers. This will add a new layer of complexity at the operational level, because these service providers will need to exchange a lot more reporting and data.



In practice, securities processing will evolve towards a component-based industry where service delivery can be more segregated.

New business models will make functional and operational links diverge which will then re-wire post trade differently from today.



An operational view

While we expect the securities business in the Eurozone to be concentrated between major hubs, T2S and CSD-R will have a significant operational impact on all market participants.

Since T2S has become the ubiquitous settlement platform of the Eurozone, we have started to witness the breakdown of traditional operating models because the operational chain of information will not always match the legal or functional one.

For example, directly connected T2S participants (DCPs) now send settlement instructions directly to T2S, and no longer through their custodian and/or CSD. And as T2S becomes the central settlement processing engine for the Eurozone, entities connected directly to T2S, will be able to receive status and confirmations directly, again bypassing the rest of the chain. For the first time, traditional messaging flows have been broken and no longer mirror the functional/legal distribution of tasks.

Although the traditional chain may be broken, participants will not be able to work in isolation because they will rely on each other for information. We believe that this will lead to new ways of communicating, including the set-up of new automated copy mechanisms, already widely used in the RTGS space.

New standards

In addition to the impact on operations due to the dissociation of functional flows from operational flows, back-offices will also need to contend with new standards and specific data, including the Legal Entity Identifier (LEI), and manage a parallel use of ISO 15022 and ISO 20022 for their message exchange.

In some markets, including the Nordics, CSD's already have plans to discontinue the use of proprietary standards in favour of ISO 20022. Most markets however are likely to implement ISO 20022 more gradually, waiting for sufficient customer demand before making the change.

Phase three – the only constant is change

Although T2S and securities regulation have already started to have a profound impact on securities post-trade, this marks only the beginning of a new era of transformation.

There are several other market events expected in the coming years that are likely to be an even more powerful driver of transformation than T2S, and these include:

T2S evolution	Eurosystem's 2020 vision	New technologies	New regulations	Brexit
<p>The expansion of T2S to include more currencies, more instruments such as funds, and/or more markets either inside or outside the EU, will clearly further extend the influence of T2S on the market.</p>	<p>The Eurosystem's 2020 vision, which blurs the traditional separation of securities and payments markets, by offering single access to a new real-time payments system, TIPS, as well as T2 and T2S. The platform will operate using a single standard – ISO 20022 – which is already used by T2S. Although some banks claim to have already combined the back-offices of their high value payments and securities businesses, for many others the transition to ISO 20022 will have a major impact on their payments processing chain.</p>	<p>New technologies, including DLT (Distributed Ledger Technology) which could be well suited to improving the efficiency in securities post-trade. One of the reasons blockchain could add value is because it would increase transparency between players, from issuers to regulators and reduce the need for costly reconciliation.</p>	<p>New regulations will continue to be added to the already burgeoning body of existing financial regulation, alongside the plan for Capital Markets Union (CMU), which aims to create a deeper, more integrated capital market in the EU and to foster investment across borders.</p>	<p>Brexit, the UK's exit from the EU, will require the disentangling of the UK from a substantial body of EU legislation that currently applies, a massive undertaking that will take several years to complete. All industry sectors and functions, including securities post-trade, are likely to be affected and some Banks have started to consider moving some activities out of London to other European countries.</p>

Transformation – a journey not a destination

There is little doubt that T2S and CSD-R are highly disruptive and will reshape the securities post-trade industry. However, it is still difficult to determine the long term future state, or indeed exactly when these changes will occur.

Most industry participants have now prepared for T2S, and many are in the process of preparing for CSD-R and developing new business models. But some players, including key Investment Banks and Fund managers, are waiting to see how the post-trade landscape evolves before making final decisions about how to change their business and which service providers to use and this will continue to shape the future.

Alongside these business model changes, we expect a breakdown of the traditional value and transaction chain flows which will result in more connections between all the parties involved in post-trade, not less, because no party will be fully excluded from the ecosystem, at least in the short term.

This will lead to a greater need for cost efficient, flexible and re-usable technology that can be deployed, and then redeployed, as business needs and new partnerships evolve.

Standardisation and interoperability between market participants will play an important role, supported by new and cost efficient communication tools.

The market has already started to collaborate to achieve this, and a good example is the adoption of the ISO 20022 Harmonisation Charter, which seeks to ensure interoperability between market participants using ISO 20022 by streamlining the use of the different versions and making individual CSD specifications available.

The ISO 20022 standard has also been chosen by European regulators for reporting under a variety of regulations including EMIR, MiFID II/MiFIR, SFTR and MMSR. The use of same standard for transaction processing as well as regulatory reporting will simplify implementation for regulated firms by enabling re-use of systems and data.

And in order to remain relevant, participants will also need to be able to interconnect efficiently. The ability to rethink and agilely rework connections to different market players will therefore be essential, as will the ability to rely on the reuse of tried and trusted infrastructure and communications mechanisms when initiating interactions with new players. This is where SWIFT plays a critical role, since it can offer safe, resilient, reliable and standardised messaging solutions to all its users.

In the securities post-trade landscape of the future, we believe that being well connected and agile may be more important than scale. To succeed in this new era, all securities industry participants, including CSDs and custodians, will not only need to be innovative - they will need to be agile to benefit from the transformation that is on the horizon.



About SWIFT

SWIFT is a global member-owned cooperative and the world's leading provider of secure financial messaging services. We provide our community with a platform for messaging, standards for communicating and we offer products and services to facilitate access and integration; identification, analysis and financial crime compliance. Our messaging platform, products and services connect more than 11,000 banking and securities organisations, market infrastructures and corporate customers in more than 200 countries and territories, enabling them to communicate securely and exchange standardised financial messages in a reliable way. As their trusted provider, we facilitate global and local financial flows, support trade and commerce all around the world; we relentlessly pursue operational excellence and continually seek ways to lower costs, reduce risks and eliminate operational inefficiencies. Headquartered in Belgium, SWIFT's international governance and oversight reinforces the neutral, global character of its cooperative structure. SWIFT's global office network ensures an active presence in all the major financial centres.