Finance for Europe

Post Trade explained

The role of post-trade services in the financial sector

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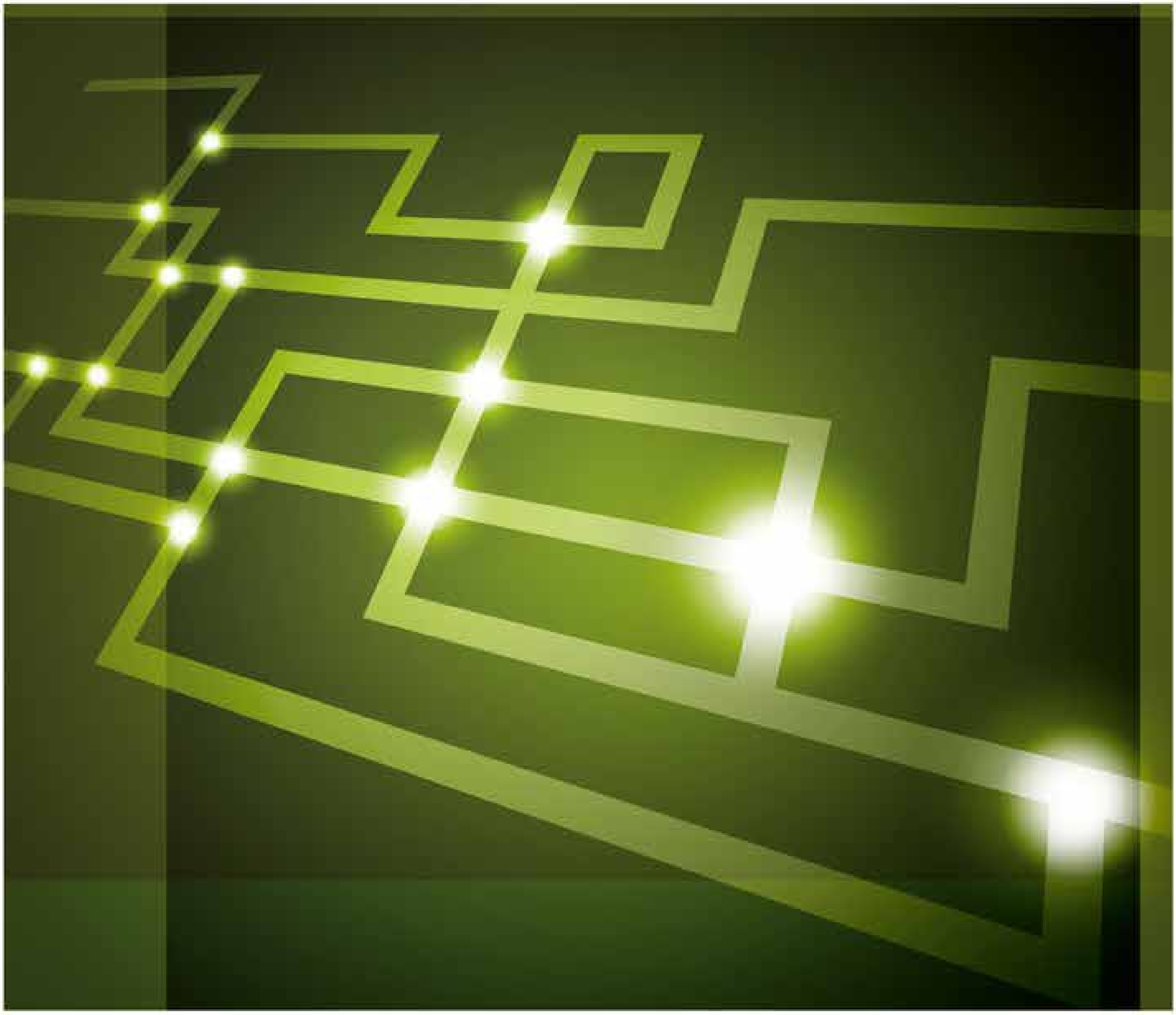

Association for Financial Markets in Europe
www.afme.eu

AFME Post-Trade division

The Association for Financial Markets in Europe (AFME) is the voice of Europe's wholesale financial markets. We represent the leading global and European banks and other significant capital market players. We advocate stable, competitive, sustainable European financial markets that support economic growth and benefit society.

We believe that liquid capital markets and a well-functioning banking system are central to any successful modern economy. Together they enable investment in economic growth, channel funds from companies and households with surplus cash to ventures and projects that need funding, and help corporate users, investors and institutions to hedge risks and plan for their financial future.

AFME's Post-Trade division focuses on the creation of a single integrated post-trading process for securities transactions in Europe, and seeks to achieve harmonisation, standardisation and consolidation through best practice and regulation. The division's work covers the operational, legal, tax, and regulatory aspects of post trading. AFME's Post-Trade division provides clearing, settlement and custody solutions to reduce costs and risks of market participants.

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1. Executive Summary

Post-trade processes comprise the services that are performed subsequent to the execution of a trade, and include:

- clearing
- settlement, including processes preparing for settlement such as affirmation, confirmation, allocation and matching
- custody and asset servicing
- related activities such as collateralisation

Post-trade services are provided by financial market infrastructures such as Central Counterparties (CCPs) Clearing Houses and Central Securities Depositories (CSDs), as well as by intermediating banks (including custodians) and brokers.

Figure 1 shows how:

- post-trade services form an integral part in discharging obligations entered into at trading level
- post-trade service providers process the corporate actions initiated by issuers, for the benefit of investors

Figure 1. **Securities industry value chain**

Before the financial crisis of 2007-2008, European post-trade reform focused on efficiency gains through harmonisation and standardisation, aiming to remove the Giovannini Barriers[1], the determined impediments to integrated low-cost and low-risk European post-trade processes. As a result of the lessons learned from the crisis, a fundamental shift towards safety now characterises post-crisis regulatory initiatives.

This paper provides a brief description of the post-trade functionalities:

- the relations and interdependencies with trading
- Central Counterparty clearing
- settlement
- custody/asset servicing
- investment fund operations

In relation to the current relevant market structure, the paper also provides:

- an overview of regulatory and private sector initiatives impacting these functionalities
- an outline of work still to be performed to achieve the overriding objective of an integrated low-risk and low-cost post-trade environment in Europe

1 Giovannini reports of 2001 (www.bit.ly/1v1mvoz) and 2003 (www.bit.ly/1v1mGQY)

Trading

Trading is the activity of buying and selling securities or other financial instruments.

Clearing

Following the trade, clearing is the process of managing the actions between trade date and settlement date. Clearing can be done formally through a CCP clearing house, or informally directly between buyer and seller. CCP clearing is the process whereby the CCP becomes the buyer to any seller and the seller to any buyer, so the counterparty risk is transferred to the CCP from the actual parties to the trade.

In the area of clearing, **EMIR**, the European Market Infrastructure Regulation of 2012, covers clearing obligations, the regulation of CCPs and obligations to report to Trade Repositories. Level 2 regulation is currently being implemented.

Settlement

Settlement is the step in the post-trade process flow where the buyer receives the purchased securities and the seller receives the corresponding cash for those securities. Banks and brokers, as investors' intermediaries, are involved in the process of settling trades of securities in book entry form, and in providing access to CSDs. In the area of securities settlement, the CSD Regulation (**CSDR**) covers inter alia the improvement of securities settlement (including the shortening of the settlement cycle to T+2) and the regulation of CSDs. In addition, Target2-Securities, **T2S**, the pan-European settlement project initiated by the European Central Bank (ECB), will go live from 2015-17.

Custody and asset servicing

These services comprise the safekeeping of assets by intermediary banks, brokers and CSDs on behalf of investors, as well as carrying out asset servicing functions such as income collection, corporate action processing, tax reclamation and proxy voting services.

Custody services are defined as ancillary services under the Markets in Financial Instruments Directive 2 / Regulation (MiFID 2/MiFIR), while the amendment to the **Shareholders Rights Directive**, proposed by the Commission in April 2014, inter alia aims at broadening the obligations of intermediaries. Through private sector initiatives, best market practices have been developed using market standards for corporate actions processing and for general meetings to facilitate the exercise of rights flowing from securities held – these are currently being implemented in all European markets.

Initiatives in the area of investment funds (mutual funds, unit trusts, exchange traded funds etc.) also have a significant impact upon post-trade processes. These initiatives include legislation (notably the Undertakings for Collective Investment in Transferable Securities, **UCITS**, and the Alternative Investment Fund Managers Directive, **AIFMD**), as well as private sector work by the International Securities Services Association (ISSA), the European Fund and Asset Management Association (EFAMA) and others.

Reform

Important milestones have been achieved in the process of European post-trade reform. However, the following gaps need to be closed:

- action by the EU authorities to resolve outstanding legal issues such as eliminating legal uncertainties and the creation of a consistent conflict-of-laws regime
- enacting enforceable solutions to withholding tax procedural issues – likely to be based on the EC Recommendation on withholding tax relief procedures of 2009[2] and the Tax Barriers Business Advisory Group (T-BAG) Report of 2013[3]
- creation of a recovery and resolution regime for CCPs and CSDs that offer banking services, based on the CPSS-IOSCO principles. Such a regime will be an important element of risk mitigation

In AFME's view, a synthesis of efficiency and safety and the combination[4] of public sector authority and private sector expertise and experience is crucial to conclude the process of European post-trade reform successfully.

2 www.bit.ly/1p5eDl8

3 www.bit.ly/1uNGmrD

4 www.bit.ly/1zJ22oF

2. Introduction

2.1 / Purpose and objectives of this paper

The purpose of this paper is to:

- explain the critical role of post-trade activities within developed, integrated, and efficient European capital markets, and how to help to enhance the current European framework
- provide brief educational information on key post-trade topics for incoming MEPs and other public officials in EU and national institutions, and to present the AFME Post-Trade division's mission and objectives

2.2 / Role of Post Trade in the financial sector

The creation of an integrated and efficient European capital market is one of the most important and ambitious projects currently underway in the European Union.

Europe needs developed, reliable and effective capital markets to provide: (i) diverse mechanisms for the financing of economic activities; and (ii) alternatives for investors' savings allocations.

Since 1999, when the Financial Services Action Plan was launched, considerable progress has been made towards this goal, both in terms of legislative measures and market integration.

A crucial element of this framework is the safety and efficiency of the arrangements required to finalise securities transactions ('clearing and settlement'). These arrangements, largely invisible to the retail investor, lie at the core of modern capital markets and are indispensable for their proper functioning.

The trading of securities – buying and selling financial securities such as shares and bonds for cash – is a well-known area, regularly covered in the press. Less known is the area of Post Trade, where, after the trade has been carried out, the buyer ultimately receives securities and the seller receives cash.

The exchange of cash and securities is normally carried out using a simultaneous electronic process known as Delivery versus Payment (DvP), which ensures that neither party can end up with both the securities and the cash (with the other party holding nothing).

The term 'Post Trade' also includes the custody of securities in Central Securities Depositories – either as paper certificates or as computer records. Banks may intermediate by holding the securities as custodian in the depositories on behalf of investors; in such cases, banks are often known as intermediaries. The route to settlement is complex, and involves confirmation, matching and clearing of trades before they can be passed for settlement. These are all discussed further below.

2.3 / Post-trade regulation after the 2008 financial crisis

Until the financial crisis of 2007-2008, much of the EU's work under the EU Financial Services Action Plan and financial services policy objectives of 2005 was directed towards achieving a single market in securities in pursuit of the Lisbon agenda. This work continues, but has been added to by the EU's post-crisis regulatory programme to reduce systemic risk.

Following the crisis, three particular strands of remedial regulation have arisen in Europe:

i. improving the management of derivatives

ii. extending the regulation of Financial Market Infrastructures (FMIs) substantially

iii. imposing strict liability upon custodian banks for loss of clients' assets by extending the regulation of UCITS, hedge funds and other alternative investments

Core to the establishment view was that post-trade FMIs – including exchanges, CCPs, CSDs and payment systems – had worked well throughout the crisis. No post-trade FMIs failed in their tasks or became insolvent.

Regulators noted this, and in addition to regulating trading activities, have sought to preserve the robustness of the post-trade systems. In 2010, the ECB published a report[5] on the conduct of FMIs during the crisis. The ECB report noted that performance was good, but identified various problems, adding recommendations to prevent their recurrence.

The G20 mandated in late 2009 that derivatives trades should, as far as possible, be traded on exchanges and cleared and reported centrally. This centralisation would move volumes to the trusted infrastructures, maximise netting of settlement credit exposures, move credit exposures to CCPs (away from being bilateral between banks) and allow transparency for regulators of what goes through the markets. Critics have noted, however, the possibility of increased systemic risk arising from concentration of credit risk into a few CCPs.

Improved regulatory oversight has been introduced – particularly through the creation of new EU supervisors with the ability to overrule national regulators in some circumstances. The Bank for International Settlements has also proposed higher and better capital requirements for banks and insurers. One result of the Madoff asset theft is that banks, acting as depositaries, are in many cases to be made responsible for the loss of assets held through them, even if (in most cases) the assets are lost through no fault of the bank. Insurers similarly have to introduce better governance and risk processes.

5 Report on the lessons learned from the financial crisis with regard to the functioning of European financial market infrastructures (ECB, April 2010) (www.bit.ly/1ArR8Hc)

3. Post-trade activities

3.1 / Relations and interdependencies with trading

As indicated above, there is a clear flow in operations from trading to post-trade activities. After a trade has been carried out, much administrative work follows (largely electronically) to confirm and match the details of both sides of the transaction so that the trade can be passed for clearing and settlement (see Appendix 2 – Trade confirmation).

Creating a single European marketplace for financial services (including the buying and selling of securities) has long been an ambition of EU visionaries, and the ability to achieve this ambition was reinforced by the single market Lisbon Agenda of 2000. For Financial Services, the Lisbon Agenda gave rise to the Financial Services Action Plan – a set of 42 pieces of EU legislation to bring about, as far as possible, a single market in financial services.

Regulation

Implemented in 2007, the Markets in Financial Instruments Directive (MiFID), sought to establish cross-border securities trading throughout the EEA. Until then, most access to stock exchanges had been restricted by national rules to local stockbrokers (the concentration rule).

MiFID enabled any suitably authorised person or organisation to access trading venues throughout Europe. For example, a Swedish investor could now use a Swedish (or German, French, Estonian or any other nationality) broker to buy shares in Athens or Lisbon without employing a local Greek or Portuguese broker.

The corollary to this opening up was to standardise investor protection. MiFID sets out detailed requirements in terms of investor categorisation to ensure that retail investors receive greater information and protection than professional investors; that investors receive 'best execution' selling at the highest and buying at the lowest available prices; that commissions are disclosed; that records are retained; and that conflicts of interest are avoided. MiFID includes many further provisions to ensure consistent fair play when trading across thousands of kilometres.

Another result of MiFID was the development of many pan-European electronic trading platforms to handle large international securities trades. Major names include: BATS Chi-X and Turquoise. MiFID is currently being updated (as MiFID 2) to remedy some shortcomings identified since 2007, and to implement the 2009 G20 requirements on standardised derivatives trades conducted at exchanges.

Since 2007-2008, there have also been significant changes to trading regulations for derivatives, brought about by the G20 summit in 2009.

The G20 summit communiqué stated: "All standardised OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end-2012 at the latest. OTC derivative contracts should be reported to trade repositories. Non-centrally cleared contracts should be subject to higher capital requirements."

In the EU, MiFID has been revised into a new Directive (MIFID 2) and Regulation (MIFIR) to implement the G20 derivatives trading requirements. Clearing requirements have been dealt with mainly through EMIR and CRD IV.

In the area of unit trusts and mutual funds, the EU has been developing a standardised model of Undertakings for Collective Investments in Transferable Securities (UCITS) since 1985, although the process began in the early 1970s. European post-trade activities in securities and funds have performed well for many decades through a process of continual evolution and regeneration, assisted by practical measures from regulators.

3.2 / Clearing

Clearing occurs after a trade is executed (Figure 1). It is the process of ensuring that the terms of a contract, established by a trade and its confirmation, are fulfilled by the settlement process (Appendix 2). Normally, this post-trade process will include netting of amounts receivable and payable amongst the market participants.

A CCP may interpose itself between the two trading parties, becoming the buyer to every seller and the seller to every buyer – the CCP taking on the liability for settlement. A CCP is a crucial market infrastructure to clear most equities and some fixed income securities. From June 2014, there has been a significant increase in the number and value of derivatives transactions cleared due to a new regulation, EMIR, being enforced.

To join a CCP, eligible members must pay membership fees as well as contribute to default fund, a base layer of capital used by the CCP in extreme circumstances. For every trade a CCP executes and clears, it requires additional funds known as margin. This is usually requested at the end of every day, although in volatile stock markets when prices are moving quickly, the CCP will not wait and will request the funds immediately.

Margin is sometimes referred to as collateral, but the principle is the same: the CCP has the funds to use in the event of a member being unable meet its various obligations to the CCPs. When this happens, the clearing member will be deemed in default, at which point the CCP will try to close out all of the member's open positions by buying securities in the market with the margin it has collected.

Risk mitigation is the primary role of a CCP. However, in some markets like cash equities (equity shares being sold or bought in exchange for money), they also serve additional functions. When trading occurs on a stock exchange, it is often anonymous – the buyer cannot see the seller and vice versa. However, both trades are sent to the CCP, and the exchange adds the details of the trading parties. At this point, the CCP becomes the legal counterparty to both transactions. Neither needs to know who they bought or sold with as their counterparty is now the CCP, thus avoiding the need to worry about one’s trading parties’ financial affairs.

The legal obligation of the CCP is to deliver securities to the buyer. If they are not received from the seller after a number of days, the CCP will cancel the seller’s trade and buy in the shares for onward delivery to the buyer. Any costs incurred will be passed back to the original seller.

Another useful function that a CCP can provide is ‘netting’. If a counterparty buys a large amount of equities on an exchange, it is highly likely that there will be multiple underlying transactions. The CCP will take all of the trades and net them into a single transaction (a buy or sell). If counterparty buys and sells the same securities in a day, these can also be netted, reducing the total number of securities to be received or delivered, thus reducing its exposure.

Netting example: A trading party buys 100 shares in stock A and sells 90 of them during the day. The CCP takes these trades and calculates a net transaction, in this case a buy of 10 shares in stock A. This significantly reduces the exposure of settling 100 shares in one direction and 90 shares in the opposite direction and is another example of risk mitigation.

Risks and mitigants in clearing: The collapse of Lehman Brothers provides an excellent example of the risk mitigation provided by a CCP. As soon as it filed for Chapter 11, the CCPs declared Lehman to be in default. They used the margin that they had collected for all of the outstanding trades to ensure deliveries could be made. There were inevitably delayed settlements, but the CCPs only used funds provided by Lehman to resolve all of the outstanding trades.

Severe risks in clearing: The default of a CCP is a rare event and only three have failed in recent times. The first was the Caisse de Liquidation Paris in 1974, which failed due to a default on margin calls when sugar-futures prices fell sharply.

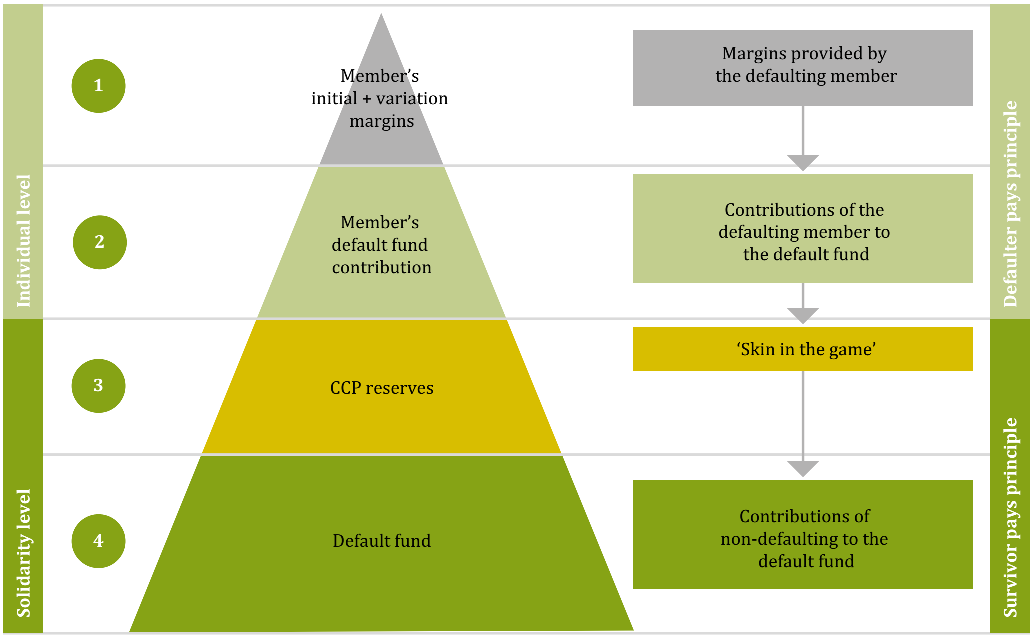
The Kuala Lumpur Commodity Clearing House defaulted in 1983 when a number of large brokers defaulted, following a crash in palm-oil futures.

Most dramatically, the Hong Kong Futures Exchange nearly defaulted due to the 1987 market crash. The effects were devastating. The Futures Exchange had to close. Traders faced margin calls on their cash positions but, with the futures market closed and the clearing house in default, they could not receive margin moneys due to them from the Clearing House on their profitable positions. Eventually, the main stock market closed too. Hong Kong’s main capital market was closed. The Hong Kong Government and the clearing banks had to step in to reduce concern that the Clearing House, once reopened, would default again.

Although a default of a CCP seems unlikely, the thought of asking the taxpayer to bail out an organisation that they have never heard of (unlike the banks) is unpalatable for all concerned. In the same way that banks are now subject to a recovery and resolution directive, a similar regime is being actively progressed globally for CCPs.

Some measures have already been taken to bolster the balance sheet of CCPs. Some of their own capital (as a financial deterrent) must be deployed in the CCP's 'default waterfall', after the defaulting member's margin and default fund has been used (Figure 2).

Figure 2. **CCP 'default waterfall'**



If the CCP has used its own capital, it can then start to use other members' capital to settle remaining trades. If it uses that capital, there is no money left. The European Commission is expected to propose legislation in 2015 for the recovery and resolution of CCPs. It is likely to build on similar work by the Financial Stability Board, the global standard setting body, the Committee on Payment and Settlement Systems, and the International Organization of Securities Commissions (CPSS-IOSCO), and an own-initiative report produced by MEP Kay Swinburne.

EMIR

The European Market Infrastructure Regulation (EMIR) is a regulation which covers the central clearing of derivatives, authorisation of CCPs and trade reporting to a Trade Repository. Trade reporting started in February 2014 as a means to track systemic risk amongst firms trading in derivatives. Regulators have access to the data, but the lack of a unique trade identifier has meant it is difficult to match trades sent to different Trade Repositories.

The authorisation of CCPs by the European Securities and Markets Authority (ESMA) is currently underway. ESMA, together with a college of regulators, is examining each application from EU and non-EU CCPs. The importance of qualifying status should not be underestimated as each derivative transaction will attract a significantly higher capital charge if cleared via a non-qualifying CCP. This is unattractive as it ties up capital that could be used for other purposes.

As each CCP is authorised, they can offer the ability to segregate accounts on behalf of their clearing members' clients, known as Non-Clearing Members or NCMs. The potential benefit for an NCM of this segregated structure is the ability to transfer its assets to a new Clearing Member if its current provider defaults.

Finally, as requested by the G20 in Pittsburgh in 2009, many derivatives products have been cleared since summer 2014. It is expected that the majority of OTC derivatives will be cleared via a CCP. This has benefits for the investor, who has the confidence that a CCP will be less likely to default than a bilateral counterparty. However, it places a significant burden on the CCPs as they clear products that have been opaque in the past.

Should a CCP significantly underestimate its exposure to one of these products, it will be important for it to have the strong controls that EMIR requires – together with a sound recovery and resolution regime in case the CCP gets into difficulties.

3.3 / Settlement

One of the crucial steps in the post-trade process flow is settlement – whereby, after a trade has been carried out, the buyer receives the purchased securities and the seller receives the corresponding cash in exchange for those securities.

This is the same process that happens in all ordinary commercial activities – eg across the counters of shopkeepers or through the web servers of online shopping malls. However, in the case of securities transactions, settlement normally occurs two or three business days after trade date to allow for a certain number of processing steps to occur, which ensures a much higher degree of control and efficiency, as required for the processing of high volumes and values of securities transactions.

The exchange of cash and securities is normally carried out in electronic form (although physical delivery is also still used in case of securities held in physical form), using a procedure known as Delivery versus Payment (DvP). DvP ensures that neither party can end up with both the securities and the cash, with the other party holding nothing.

Settlement and safekeeping

Investors normally use banks to hold their securities and cash through safekeeping accounts and cash accounts. In this sense, banks are called 'Custodians' of the investors' assets and, in turn, banks hold their clients' assets in centralised custody via the CSDs established in their country.

Settlement of a securities trade requires an arrangement between the seller's and the buyer's Custodians to transfer the required quantity of securities from the seller's safekeeping account to that of the buyer. At the same time, in true DvP mode, the negotiated amount of cash moves in the opposite direction, from the buyer's to the seller's cash account.

If both seller and buyer hold their assets in deposit at the same bank, settlement can be effected directly on the books of that bank (an 'internalised settlement'). However, in the more generic and frequent cases where different Custodians are involved in the settlement, the banks of the two trading counterparties need to coordinate between themselves the two simultaneous and reciprocal transfers of securities and cash, as per the terms that have been agreed in the trade.

Settlement and matching

To facilitate their technical interaction and ensure maximum processing efficiency, Custodian banks are interconnected using Securities Settlement Systems (SSSs), which are typically operated by CSDs.

SSSs are a technical system that connects all the safekeeping accounts held by Custodian banks at the CSD, as well as the main cash accounts of those banks in the high-value cash clearing systems (typically operated by the national central banks, such as Target2), and allows for the processing of securities settlements.

Each Custodian sends settlement instructions to the SSS, reflecting the exact terms of the instructions received from their respective clients who are the counterparties in the trade. The seller's Custodian will instruct the delivery of a certain type and quantity of securities to the account of the buyer, while the buyer's Custodian will instruct the payment of a given amount of cash to the account of the seller.

For these two opposite instructions to be linked together and executed simultaneously in the SSS, a specific process called matching needs to take place before settlement can be effected.

Matching is also an important tool to ensure the correct pair of settlement instructions is selected out of the numerous instructions that have been sent to the SSS by all its participants – exactly those corresponding to the two trading counterparties in the original trade that needs to be settled.

To avoid any mismatching of settlement instructions, in addition to the information about the securities and cash to be exchanged, various other elements need to be specified in each settlement instruction, such as trade date, intended settlement date and counterparty bank's account details.

The matching and settlement process described above is essentially the same process, irrespective of how each trade has been executed between the two underlying investors or intermediaries in the trade.

In the post-trade environment, there is no distinction between transactions related to trades executed in a regulated market or other trading venue and trades executed on a bilateral basis ('over-the-counter' trading). Neither is there a distinction between transactions related to trades settled individually on a gross basis versus those trades that are sent to a CCP for clearing and netting.

There is always a transfer of securities from the safekeeping account of a delivering party to a receiving party and the payment of cash from the receiving party's cash account to that of the delivering party. To ensure the settlement of all these different types of transactions is performed smoothly and correctly, it is crucial that settlement instructions are exact in identifying the terms of the two reciprocal transfers (securities versus cash) to be effected for each trade.

Role of settlement agents

The distinction between the trading counterparties and the settlement counterparties is important. In some cases, the same entity may take both roles – eg trading counterparties that settle transactions for their own account.

At the moment of trading, the two counterparties (for their own account or as brokers or intermediaries for the account of their own clients) are negotiating a sale/purchase contract between themselves, and agreeing on the exact quantity and price of a security at which the seller and the buyer agree to execute the trade.

On the other hand, in the context of settlement, the two counterparties are simply acting as executors of the terms that have been agreed at the moment of trading and therefore do not have any discretion or decision-making power.

If for any reason the two settlement instructions cannot be matched, this may be due to differences in important elements, such as the wrong cash amount, the incorrect account details or a slightly different type of security (eg the preferred stock rather than the ordinary stock of the same issuing company). In these cases, the settlement agent cannot merely apply its own discretion and amend the terms of the client's original instruction, but needs to revert back to the client and ask for further details on the exact terms of the trade that needs to be settled.

Availability of resources for settlements

A Custodian can only act on the basis of the instructions received by its client, and will therefore execute a securities settlement only if that client has made available the resources needed to effect the settlement as instructed. The seller needs to provide its Custodian with a sufficient quantity of stock to be delivered, while the buyer needs to provide a sufficient amount of cash to be paid in exchange for those securities.

Typically, a Custodian bank receives cash 'as banker' and commingles the client's cash with its own assets against an obligation to return the same amount. On the other hand, securities are received in custody and are kept in safekeeping accounts distinct from the bank's own securities. Therefore, it is much easier for a Custodian bank to provide credit to a client in case of transitory shortages of cash, using adequate credit risk management tools, which is the traditional cash lending service of a bank, than to provide temporary coverage for shortages of securities.

In some cases, shortages of securities can be addressed using securities lending, repurchase agreements or other similar tools (where the Custodian bank itself may be the provider of the lending services, on a principal or an agency basis), but in general terms these are to be considered additional and separate services from the basic settlement service.

It is also important to note that cash is much easier to borrow, compared to securities, which may at times become 'illiquid' – meaning not available for purchase or for borrowing, due to additional considerations attached to the holding/ownership of that security, eg in relation to a specific event such as a shareholding right to be exercised or a particular corporate event to be subscribed to by the holder of that security.

Securities Settlement Systems as public infrastructures

In general terms, each national CSD operates its own securities settlement system, which needs to be approved and certified by the relevant public authorities in order to ensure that proper operating rules and supervision are in place.

In this sense, CSDs and SSSs provide a public utility service, much like other public infrastructures such as motorway and transport networks, electricity and water supply grids, and telecommunication systems. An important development of this concept is represented in Europe by the ECB initiative for the establishment of a common settlement platform, Target2-Securities, which will be shared across multiple CSDs and allow further integration and efficiency amongst the participating CSDs (for more details, see the T2S section below and Appendix 1).

Regulatory and private sector initiatives impacting the functionality – results and interdependencies of safety, efficiency and competition

The most important piece of recent EU legislation related to settlement activities is the **CSD Regulation** (CSDR), approved and published in the EU Official Journal on 28 August 2014. The main topics of interest are:

- CSD organisation principles
- principles for CSD authorisation, core services versus banking services (Appendix 1)
- settlement discipline measures (Art. 7, measures to prevent settlement fails and measures to address settlement fails)
- mandatory adoption of T+2 settlement period
- freedom of choice of the CSD in which new securities are to be issued, in line with removal of Giovannini Barrier 9

Following the final adoption of CSDR, various Regulatory and Implementing Technical Standards are expected to be issued by ESMA and the EBA in 2015. These will primarily address technical aspects of settlement discipline measures, internalised settlement reporting, registration and supervision of CSDs and other organisational and operational requirements for CSDs, including rules for the establishment of CSD links and the authorisation procedure to provide banking type ancillary services.

Another important initiative, which has been indirectly triggered by the adoption of CSDR, is the coordinated move to a shorter settlement cycle (i.e. the length of time between trade date and settlement date) in most of the European Economic Area (EEA) countries.

The move from T+3 to T+2 was successfully adopted in most of the affected EU countries on 6 October 2014, for all transactions in transferable securities executed on a regulated trading venue. Many critical elements of the trade lifecycle will be affected by the shorter settlement cycle; in particular, the affirmation, allocation and confirmation processes, liquidity and funding processes, and all the pre-settlement activities described above, such as matching and credit checks.

Once the T+2 settlement cycle is fully implemented, market participants will benefit from increased efficiency and reduced risk in the post-trade environment.

Outstanding work to be performed / gaps to be closed to achieve an integrated, low-risk and low-cost post-trade environment in Europe

Following the definition of T2S functionalities and specifications (see T2S detailed explanation in Appendix 1) that principally cover securities settlement activities, some important additional work is in progress to define common standards for various related activities which hinge on the common settlement platform. Good progress has been made towards the adoption of such common standards across the 24 CSDs participating in T2S and in their 21 national markets, as shown by the latest T2S 'Fourth Harmonisation Progress Report', in March 2014. But the road towards complete harmonisation and integration in Europe is still a long and difficult one.

The activities being considered by the Harmonisation Steering Group are clearly first-level priorities, focusing on standards of an operational and legal nature that directly impact the efficiency of settlements in a 'cross-CSD' settlement scenario. Further work is being promoted by the Corporate Actions Sub Group, and the Corporate Actions Joint Working Group or CAJWG – on a wider basis than just the T2S markets – which addresses the definition of standards for various asset servicing activities (see page 15).

Even more complex and far-reaching work is being developed around activities that involve issuance procedures, shareholder rights, tax collections etc, which not only depends on the functionalities of the securities infrastructures but also on common principles under wider legal, regulatory and supervisory perspectives (some of these initiatives are being brought forward by the EPTG – European Post Trade Group).

This legal, regulatory and supervisory work is probably the most difficult to make progress on, as it requires close cooperation and alignment of private sector and public sector initiatives, often impacting on fundamental principles about the political organisation and interactions amongst multiple different stakeholders and interest parties in the financial markets and the national communities at large (eg between issuing companies and their shareholders, between governments and their taxpayers, between commercial / competitive drivers and regulatory / oversight controls).

3.4 / Custody and asset servicing

Description

As described earlier, the term 'custody' in a financial markets sense refers to the function of looking after, or safekeeping, assets on behalf of investors. This function is carried out by Custodian Banks (Custodians). Investors use Custodians to hold their securities and cash through safekeeping accounts and cash accounts. Custodians in turn hold their clients' assets in centralised custody via the Central Securities Depositories (CSDs) established in in each local market or through local agents that are themselves clients of the local CSD.

Custodians also service the assets that they hold in safekeeping accounts. This function is referred to as asset servicing and includes the processing of corporate action events such as the distribution of income to investors that has been paid on investments in the form of dividends.

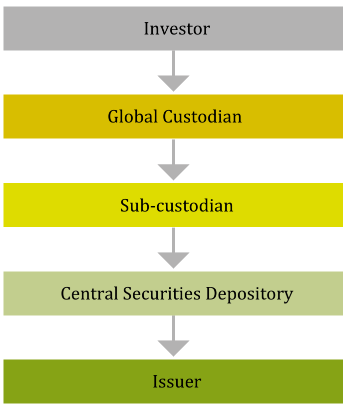
Custody holding chain

Global custodians and prime brokers are responsible for the safekeeping of assets and cash in multiple jurisdictions on behalf of investors – typically institutional investors, investment funds, pension funds, hedge funds and broker/dealers.

Custody eligible securities (equities, bonds, gilts, warrants, etc.) will be held in the investor's local markets of investment, either with the global Custodian's own branch, or with a local custody provider (a sub-custodian), on behalf of the global Custodian that has been appointed to safekeep it in the local market.

As mentioned elsewhere, global and sub-custodians must never commingle their proprietary assets with investors' assets. The global Custodian will also maintain multiple currency cash accounts in order to effect settlement of investors' securities transactions (Figure 3).

Figure 3. **Investors and Global Custodians**



Method of holding investor assets and custody account structures

There are various ways in which investor holdings can be held in custody. The following outlines the main differences in account structures, together with an explanation of the nominee concept. Investor holdings are generally held in dematerialised form (so called book entry). This means that a share is held electronically with no physical certificate issued. However, some physical holdings still exist today. The remaining physical certificates are generally held in safekeeping within the vaults of Custodian banks, although some retail investors may hold their own certificates. As a result of the EU Central Securities Depository Regulation, these remaining physical certificates are to be converted to dematerialised holdings in the next few years.

Omnibus and segregated accounts

Across different European countries, there are many different sets of legal, regulatory and operational requirements and needs that determine how CSD participants (Custodians) can hold securities at a CSD (i.e. that determine the securities accounts structure used by CSD participants).

There are two account types of account structures used: omnibus and segregated. An omnibus (or multiple beneficiary) account is a securities account in which securities that belong to multiple end investors are held. Generally, a segregated account is a securities account in which securities that belong to a single end investor is held. In some cases, a segregated securities account may be a single beneficiary securities account. In other cases, a segregated securities account may hold securities on behalf of a specific category or sub-category of intermediaries or end investors.

There are two fundamental principles driving the use of omnibus accounts rather than the use of more segregated account structures. The first is the principle of simplicity, rather than complexity; the second is the principle of data uniqueness – that data should be stored and maintained in one place only, and not stored in multiple locations.

Compared to the operation of multiple segregated accounts, the operation of one omnibus account is less complex and therefore more cost-effective. The operation of a single omnibus account involves the maintenance of one account, with one account name, one set of static data, one set of securities balances, and one set of securities movements. The operation of multiple segregated accounts involves at a minimum the maintenance of multiple accounts with multiple names, multiple sets of static data, multiple sets of securities balances, and multiple sets of securities movements.

It is essential to emphasise that the last intermediary, i.e. the bank with whom the investor hold the securities account, always holds segregated accounts for all its clients and is responsible for the client identification (KYC) and all due diligence duties over clients and transactions.

Nominee concept

A nominee can be described as person or entity named by another to act on its behalf. Under some circumstances, a legal system may view an intermediary (i.e. a nominee), and not the end investor, as being the legal owner of a specified security. A market's recognition of this concept means that the holding of securities by an account provider acting in its own name for the account of another person or other persons is accepted in the market. Custody account structures are further explained in the 2012 AFME paper, CSD Account Structure: Issues and Proposals.[6]

Asset servicing

Along with ensuring investors' assets are safeguarded and held in a secure environment, Custodians provide an asset servicing function that includes: income collection, corporate action processing, tax reclamation, foreign exchange execution and proxy voting services. These services are outlined below.

Collection of income: The custodian is responsible for receiving and reconciling dividends and interest payable on all assets held in custody.

Taxation services: Income arising from a securities portfolio is generally subject to deduction of withholding taxes in the security issuers' home market. Depending on the investor's tax status, the type of security and other factors, relief from some of the withholding taxes may be due. The Custodian will apply the appropriate tax rate and where required submit tax reclaims to the security issuers' local market tax authority for payment.

Corporate action processing: Custodians are responsible for the administration of voluntary and mandatory corporate events on assets they hold in custody (bonus issues, rights issues, takeovers, mergers etc.).

General meetings/proxy voting: As an owner of shares in a company, an investor has the right to vote at annual general meetings and influence decisions that affect the board and strategic direction of the company. The Custodian will facilitate this voting process for the investor.

6 www.bit.ly/1xlIQK9

Value-added services

Custodians may offer services in addition to the core services listed above. These value-added services include: investment reporting, fund accounting, performance measurement, transfer agency, collateral management, commission recapture, fiduciary and trustee services, and transition management. The Custodian will also execute foreign exchange transactions, if required, to facilitate settlement of securities transactions in a required local market currency.

Regulatory initiatives

Set out below are the main regulatory and industry initiatives taking place to strengthen custody and asset servicing functions further.

AIFMD and UCITS V – impact on Custodians

Recent years have seen increased regulation in the financial arena, with many consequences for custody and asset servicing. The market has seen efforts to further increase asset safety through the custody holding chain via the Alternative Investment Fund Managers Directive (AIFMD) and UCITS V Directive.

These are nominally investment funds' directives, but both have a major impact upon custodian banks as they impose a liability upon depositaries and custodian banks for the immediate restitution of any lost assets. For many years, custodians have accepted liability for their fraud, negligence and wilful default. The historical difficulty has been that in the event of lost assets or other failings, the client (such as an asset manager or pension fund) has to prove the fault of the Custodian, which can take time.

Under AIFMD and UCITS V, the Custodian will be liable to restore any client asset in the event of the asset being lost. There may be an exception to the liability for loss if it was outside the depositary's / Custodian bank's control.

MiFID and MiFIR

More regulation, in the form of the Markets in Financial Instruments Directive 2 (MiFID 2), looks to improve investor protection across Europe by ensuring similar levels of protection across all regulated markets. Custody and associated functions are classified as ancillary services in MiFID 1 and MiFID 2

Shareholder Rights Directive

In April 2014, the European Commission published a proposal to revise and amend the Shareholder Rights Directive of 2007. The proposal includes the obligations of intermediaries:

- to identify the shareholders of a company at the request of the issuer
- to transmit information between issuers and shareholders
- to facilitate the exercise of rights flowing from securities

Industry initiatives

The paragraphs below outline industry initiatives that have either taken place or are currently taking place to improve the custody and asset servicing functions.

The Giovannini Recommendations

Over recent years, a great deal of work has been carried out around the custodian's asset servicing function with a view to further harmonising related processes across Europe. The Giovannini Group produced two reports, in 2001[7] and 2003[8], on the main barriers related to the fragmentation of the European clearing and settlement markets and the resulting inefficiencies. The 'Giovannini Barriers' remain highly influential and are classed as technical or market-practice barriers, legal barriers and barriers related to tax procedures.

One of the most directly relevant to the Custody and Asset Servicing function is Barrier 3 – national differences in rules governing corporate actions. Barrier 3 refers to the operational problems characterised by these national differences.

7 www.bit.ly/1v1mvoz

8 www.bit.ly/1v1mGQY

Corporate Actions Joint Working Group / Joint Working Group General Meetings

Corporate actions processing is deemed one of the most complex areas of post-trade asset servicing. Standardising corporate-action-related processes across all European markets will achieve a significant reduction of costs and operational risks.

Individual work of trade associations contributing to the dismantling of Giovannini Barrier 3 was replaced in summer 2007 by the establishment of the Corporate Actions Joint Working Group (CAJWG), which encompasses the main relevant parties, i.e. issuers, market infrastructures and intermediaries.

The CAJWG has made good progress. Its objective has been to develop a comprehensive set of market standards for the operational processing of all categories of corporate actions, including transaction management. In 2012, CAJWG published a comprehensive revised paper, Market Standards for Corporate Actions Processing.[9] In addition, the Joint Working Group General Meetings have developed standards for the operational processing regarding General Meetings. Both sets of standards are currently being implemented in all European Markets. Progress is monitored at European level semi-annually by the European Market Implementation Group.

Broad Stakeholder Group

The Broad Stakeholder Group (BSG), dealing with both sets of above standards, is an industry body comprising relevant parties in the securities value chain, together with senior representatives of European key stakeholder associations and their respective members.

The BSG has published an initial report and progress reports, Market Standards for Corporate Actions Processing and General meetings. The reports aim to inform the European authorities on the state of implementation of the Market Standards for Corporate Actions Processing and the Market Standards for General Meetings.[10]

T2S Harmonisation Steering Group

Additionally, as a component of the Target2-Securities (T2S) project, the T2S Corporate Actions Sub-group is supporting the T2S Harmonisation Steering Group and the T2S Advisory Group in formulating and monitoring the implementation of harmonised rules for corporate actions processing; in particular on the rules on corporate actions on pending settlement transactions.

Outstanding issues

Given the scale of the reforms and the significance of custody and asset servicing functions within the financial ecosystem, it is of paramount importance that the overall evolution of the regulatory and infrastructure landscape regarding custody and asset servicing is closely monitored by policy makers. Unintended consequences caused by multiple layers of national and regional regulation will need to be addressed quickly, with regulation being ultimately changed where necessary.

4. Investment funds operations

4.1 / Funds overview

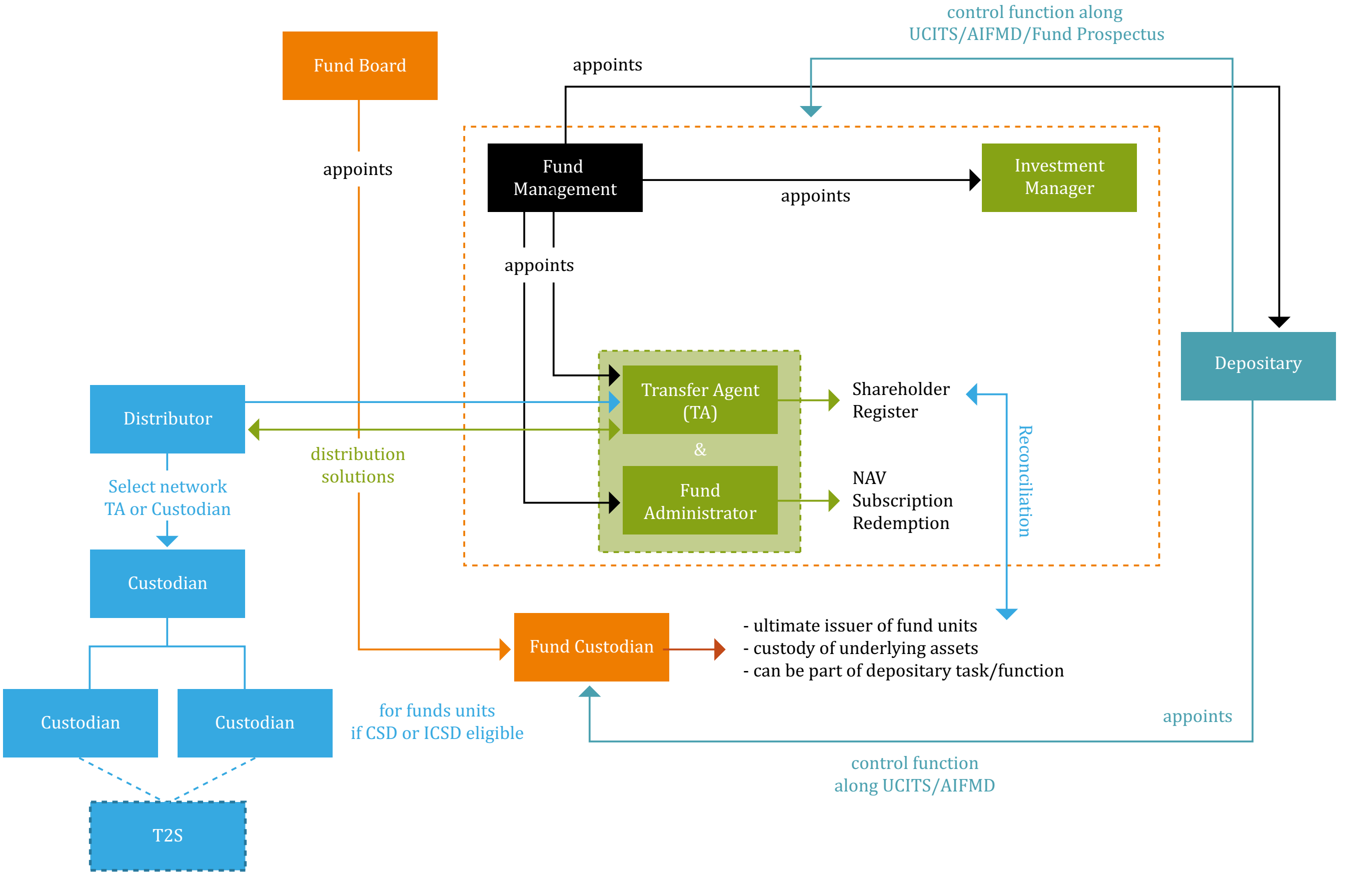
Investment funds such as mutual funds, unit trusts and exchange traded funds have many unique characteristics within financial services. Their operations share many features with securities operations generally, but a number of specific services have evolved solely for investment funds. The lack of international harmonisation of funds processing and regulation has caused their operations to be much less standardised and automated than for equities and bonds markets.

The main parties involved in setting up an investment fund, including the intermediaries involved in fund distribution and processing, are shown in Figure 4.

9 www.bit.ly/1xV2LmF

10 www.bit.ly/1ulkFaQ

Figure 4. **Investment fund overview**



4.2 / Activities and market structure

Description

Investment funds are pools of investments where risks and performance are mutualised and shared by investors in the fund. Most funds are open-ended (i.e. no fixed lifetime) entities. For these funds, the number of shares or units in circulation is adjusted according to the netting between (i) new shares or units subscribed by some investors, and (ii) those repurchased by other ones during a certain period of time defined in the fund prospectus (e.g. daily or weekly). As a result, investment funds function like a primary market where the number of shares in circulation may vary potentially on a daily basis

The net asset value (NAV) of a fund’s unit or share does not vary on a constant basis according to sales and purchases recorded on the fund. It is re-calculated afterwards according to the frequency mentioned in the prospectus.

The vast majority of funds’ shares and units are not exchanged through a regulated market or a trading platform. Subscription and redemption orders are collected by a centralising agent, which transmits them to the register of the fund after the cut-off time imposed in the fund prospectus for collection of orders. Finally, in contrast to equities, the issuance of investment fund units, and investment fund shares or units is managed through a registrar, which is a not a CSD in many markets. This impacts the way that the record keeping of shareholders or unit holders is maintained, and also the settlement function, where DvP cannot be applied as for other securities.

In parallel, some Exchange Trade Funds (ETFs) have been introduced, since 1993 in the US and 1999 in Europe, with a very similar approach as the one adopted for equities in terms of trading. ETFs, which are mostly stock and bond index trackers, combine the range of a diversified portfolio with the simplicity of trading a single stock. On the primary market, ETFs are traded continuously throughout the trading day on a stock exchange by authorised large broker-dealers and are priced close to their net asset value over the course of the trading day. ETF shares can be invested in by other investors in the secondary market (see section on ETFs from a post-trading perspective, page 21).

In consequence, beyond the traditional custody services (Section 3.4), Custodians have extended their operations to a wide range of services, adapted to the specific functioning of investment funds.

4.3 / Transfer agents

Major custodians and specialised firms offer **transfer agent (TA)** services. A transfer agent is analogous to a registrar for maintaining a corporate issuer's shareholder records. TA services involve managing the subscription / redemption process of a fund, maintaining the register of the fund's shareholders/unit holders, and collecting the net cash flows for investment by an asset manager.

A transfer agent performs duties as defined by law, or that fall under the regulation of the country of activity and acts on behalf of the company – e.g. the SICAV) / Management Company. TA services that can be adjusted depending on local or client requirements include:

- maintenance of registers of share / unit holders and confirmation of shares / units in circulation
- compliance monitoring
- processing of all orders including subscriptions, redemptions and conversions
- processing of transfers (free and versus payment) upon receipt of appropriate instructions
- processing of dividends/distributions payments and reinvestments
- production of cash flow forecast and cash flow confirmations
- cash transactions associated with share / unit holder activities
- client services (queries and reporting)

Many custodians have developed solutions to help asset managers for the follow up of their distribution network. These services mainly comprise identification of distributors and monitoring of remuneration paid to distributors (trailer fees and commission calculation and payments).

4.4 / Fund administration

Many custodians and other organisations have also developed **fund administration** services for the calculation of the fund's NAV and the processing of a number of middle-office tasks (e.g. transaction management, OTC derivative services, position keeping, and accounting services). These services have been permanently enhanced through the extension to new types of assets and with the development of reporting solutions that allow asset managers to follow up the performance of their funds and/or comply with new regulatory constraints.

4.5 / Depositary

Custodians can also act as **depositary** (Box 1) for some investment funds. This role was initially introduced in the UCITS Directive with the objective of enhancing the protection of end-investors, since one key component of the UCITS label is the safety of the underlying funds. The depositary function has been extended in terms of scope and content with the adoption of the AIFM Directive in 2011. As a result, a single depositary is to be appointed for alternative funds as well (all non-UCITS funds) and depositary functions and regimes of liability go much further than initially defined. The recent adoption of the UCITS V Directive was notably to align the depositary function for UCITS funds as defined for alternative funds in the AIFMD.

The depositary function comprises safekeeping assets on one side (or appointing a separate Custodian for safekeeping as these are similar services to the global custody services) and controlling the asset manager decisions on the other side to ensure the fund is managed in compliance with the fund prospectus and with the law. As part of the supervisory and compliance role (defined as the 'oversight function' in the UCITS and AIFM Directives), the depositary performs a number of controls on investment ratios or on the NAV of the fund.

Following recent regulatory changes, the depositary also has to comply with a new cash monitoring obligation to reduce the possibility of fraudulent cash transfers. This requirement mainly consists of performing controls surrounding cash reconciliations to check cash flows that are inconsistent with the fund's operations in a timely fashion. The depositary also has to identify discrepancies and report them to the asset manager of the fund on a regular basis.

Finally, both the AIFMD and the UCITS V Directives have introduced a strict liability regime on the depositary in case of loss of assets held in custody. The depositary can be exempted from its liability in a very limited number of situations, identified in law. For the other assets under its oversight, the depositary has only an obligations of means.

Box 1. Depository or depositary?

A **depository** is a specialist location or IT system for holding certificates or electronic records of securities.

A **depositary** is a legally defined organisation under UCITS or AIFMD. It has responsibility to:

- safekeep the assets
- ensure transactions are carried out in accordance with the law and fund documentation
- act independently and safeguard the investors' interests

4.6 / Regulatory and private sector initiatives affecting funds

Many different types of investment funds exist from a regulatory and investment perspective. This paragraph is mainly limited to UCITS Funds (see Appendices) for which many evolutions have occurred over the last 20 years. The section also deals in part with Alternative Investment Funds (see Appendices) processing as the AIFM Directive works in parallel with the UCITS Directive and is complementary to funds processing in terms of safety and imposing duties and liabilities to parties involved in the process. This section also presents some aspects related to Exchange Traded Funds (ETFs), which, from a processing perspective, are similar to cash equities, and assumed to be processed along with cash equities infrastructures (e.g. are also part of T2S).

Regulatory initiatives: AIFMD and UCITS

As mentioned above, a key provision in AIFMD and the UCITS V Directive is the requirement to appoint a single depositary for each fund by the asset manager. The Depositary is responsible for the safe keeping of assets held in custody, for record keeping of assets not held in custody, and for fund cash flow monitoring. A number of additional oversight duties apply.

AIFMD

Alternative Investment Funds (AIFs) are broadly non-UCITS funds. AIFs typically hold derivatives and less liquid assets, and are often run by hedge fund managers and private equity firms.

The AIFMD objective is to regulate the management and distribution of AIFs within the EU by 'Alternative Investment Fund Managers' (AIFMs). The AIFMD lays down the rules for authorisation, on-going operation and transparency of fund managers that manage and / or market AIFs in the European Union.

The primary focus of the Directive is to regulate the fund manager, as opposed to regulating funds, which is the EU approach in the field of retail UCITS. The new rules affect the managers of AIFs and signal major changes for their depositories, administrators and external valuers.

Fund operations will be impacted by new reporting requirements and an extensive set of implementing measures covering clarification of certain operating conditions for AIFMs, the delegation of AIFM functions, specific provisions relating to risk and liquidity management, and others. In return for regulation, EU fund managers will be able to benefit from a passport allowing for firms to manage and market an AIF throughout the EU. A transitional period allowed EU Alternative Investment Fund Managers (AIFMs) up to one year from 22 July 2013 to seek the necessary authorisation or registration in their home member states. EU AIFMs were required to submit their application for authorisation during the one-year transitional period.

AIFMD also strengthens investor protection for holders of alternative investment funds. Key features are:

- a fund must appoint a single organisation known legally as a depositary to look after its assets (by a written contract)
- uniform and increased list of oversight (supervision) duties upon the fund and its managers
- detailed provision on cash monitoring, whereas the depository needs to have a view on all assets of the fund, including cash
- a distinction between (1) custody duties on financial instruments that can be held under custody and (2) monitoring duties on other assets (i.e. verify ownership of these assets)
- liability imposed upon depositaries and custodian banks (in their duties as depositary) for immediate restitution of any lost assets. For many years, depositaries have accepted liability for their fraud, negligence and wilful default

The historical difficulty has been that, in the event of lost assets or other failings, the client (such as an asset manager or pension fund) has had to prove the fault of the depositary, and this can take years. Under the AIFMD, the depositary will be liable to restore any client asset “without undue delay” of its loss being discovered. The depositary can then attempt to prove in court that it did everything right within its power, and should not have had to make payment to the client. The difference is mainly a matter of timing as to who holds the asset during the court case. There may be an exception to the liability for loss if circumstances were outside the depositary’s control.

UCITS V

From a depositary perspective, the revision of the Directive involves aligning the depositary regime for UCITS funds to the one adopted for alternative investment funds. However, some stricter rules have been retained as UCITS funds are expected to be distributed mainly to retail investors.

The depositary will not be able to delegate or discharge itself from its liabilities. For instance, it will not be possible for a UCITS depositary to discharge itself from its liability when depositing the assets with a Security Settlement System which is not an issuer CSD as defined in the CSD Regulation. The depositary will also have to ensure that, in case of insolvency of a sub-custodian located in the EU, UCITS’ assets will be unavailable for creditors of this sub-custodian. In addition, UCITS investors will have the right of redress directly against the depositary and will not have to rely on the management company’s ability to accomplish this task.

Lastly, stricter rules have been adopted for the eligibility to act as depositary, as only credit institutions, national central banks and legal entities subject to prudential regulation and ongoing supervision by a member state’s laws will be allowed to carry out depositary activities.

In addition, UCITS V introduces new rules on sanctions and on remuneration policies. Remuneration of managers and other participants must be consistent with risk management and profile to avoid short-term returns incentivising risk-taking and decision making.

ESMA guidelines and UCITS ETFs

In the difficult economic environment of 2011, ETFs – mostly synthetic – were accused of being a potential source of systemic and counterparty risk (MiFID). Some questions were also raised about the appropriateness of these funds as investment for retail clients. As a result, ESMA issued in December 2012 “guidelines on ETFS and other UCITS issues”, which introduced significant changes for ETFs, but also UCITS funds as a whole.

The guidelines, which entered into force in February 2013, introduced disclosure and documentation requirements as well as a number of new substantive requirements applicable to UCITS ETFs and other UCITS. These include:

- index-tracking by UCITS
- use of efficient portfolio management (EPM) techniques
- use of over-the-counter (OTC) derivatives by UCITS
- management of collateral received by UCITS in this context
- eligibility of financial indices for investments by UCITS

The guidelines have heavily impacted the asset management community as many rules substantially modify existing practices and discourage UCITS funds from investment opportunities. They are also very burdensome from an operational perspective and require many developments to comply with the disclosure and risk management obligations.

Many aspects covered in the ESMA guidelines are also part of the UCITS VI consultation by the European Commission. A key question is to what extent UCITS VI could change the stance adopted ESMA on these aspects.

Private initiatives affecting funds

ISSA guiding principles[11]

The International Securities Services Association (ISSA) guiding principles of October 2009 aimed to achieve higher efficiency and convergence of market practice in European funds processing. They comprise 10 high-level principles and some smaller step recommendations to benefit European funds processing infrastructure in terms of efficiency gains, risk mitigation and cost savings:

1. Paperless processes, straight-through processing based on ISO standards
2. Mitigation of operational risk
3. Clarity of account structures
4. Key identifiers
5. Commission reporting
6. Fund Processing Passport
7. Completeness of data throughout the intermediary chain
8. Acknowledgement of order receipt and confirmation of order execution
9. Flexibility of position reporting systems
10. Transfer of holdings

11 International Securities Services Association ISSA (www.issanet.org)

EFAMA Standardisation[12]

EFAMA standardisation of funds processing in Europe (Sep 2008) is the successor study/analysis document of the 2005 EFAMA document to increase efficiency in the processing of fund orders and achieve cost savings based on some recommendations. High-level key features are:

- general recommendations to facilitate and improve the level of automation and straight through processing (STP) within funds industry (e.g. adoption of Fund Processing Passport as a new standards; use of ISO standard identifiers, such as BICs and ISINs and promotion of ISO 20002)
- recommendations on order and settlement processes concerning account identification and standing data, as well as for automation of the order, acknowledgement and subsequent confirmation process
- recommendations concerning settlement have been extended to settlement cycles, with a specific proposal to harmonise settlement date on T+3 or earlier, according to the nature of a fund's underlying assets
- recommendations to increase harmonisation of basic reporting services provided by fund administrators to distributors and institutional holders
- the area of commission reporting has also been addressed; in particular, the actor that calculates and pays commission which needs to be provided with the information to allocate correctly the payment

European Post Trade Group (EPTG) work on ETFs

Exchanged Traded Funds or ETFs are a category of funds deserving particular attention from a post-trading perspective. Most ETFs are UCITS ETFs, which became a European safe haven during the 2007-2009 crisis. Their main advantages lie in their transparency of valuation, liquidity and costs of management and distribution.

Two main ETF categories exist in Europe:

- physical (64% by value): they aim at physically replicating an index buying a basket of shares (approximately 500 funds, average size €313m)
- synthetic (36% by value): they aim at replicating an index synthetically with the use of derivatives, which are mainly swaps (approximately 820 funds, average size €109m)

A comparison of the European ETF business with that in the US shows that there is potential for growth as soon as more efficiency can be achieved:

- Europe represents 6% of global ETF trading values, but the US represents 85%
- the size of an average US ETF is four times the size of a European fund, achieving greater economies of scale
- the share of the European synthetic ETF market has grown from approximately 21% in 2005 to 36% in November 2012

In this context, work has been undertaken by the EPTG to assess to what extent the development of new functionalities and market practices could facilitate and enhance the development of ETFs in Europe, notably through standardisation and harmonisation of operational processes.

12 European Fund and Asset Management Association, Standardisation of Funds Processing in Europe, September 2008, edited as update report from EFAMA's Fund Processing Standardisation Group

4.7 / Outstanding work to improve the European funds environment

Effective implementation of existing regulations

UCITS V Level 2 measures

The Directive was formally endorsed by the European Parliament on 15 April 2014 and published in the EU's Official Journal on 28 August 2014. Member states will have an 18-month implementation timeframe. As a result, the UCITS V framework should be implemented by spring 2016.

The Commission is required to adopt various Level 2 delegated acts as part of the implementation process and will seek to align the rules with AIFMD insofar as possible. ESMA has also been mandated to develop technical standards and detailed remuneration guidelines. Public consultation is envisaged under the UCITS V implementation process. This step will be of critical importance given the compliance and cost implications for the UCITS industry.

Regarding the depositary function, aspects to be covered can be summarised as such:

- conditions to be fulfilled by the depositary in order to act independently from the asset manager and to identify and manage potential conflict of interest between the depositary, a UCITS fund, its investors and the asset manager
- steps to be taken by the depositary (i.e. due diligence) to ensure that, in the event of insolvency of a sub-custodian, assets of a UCITS are unavailable for distribution among or realisation for the benefit of creditors of the sub-custodian
- more globally, alignment between the AIFM Directive and UCITS V level 2 measures, while taking into consideration the final version of UCITS V

AIFMD

The European Securities and Markets Authority (ESMA) has released a Q&A document on the Alternative Investment Fund Managers Directive (AIFMD)[13] following its entry into force in July 2013. The purpose of this document is to promote common supervisory approaches and practices in the application of the AIFMD and its implementing measures. ESMA provides responses to questions posed by the general public and competent authorities, in relation to the practical application of the AIFMD.

The Q&A content is aimed at competent authorities under AIFMD to ensure that in their supervisory activities their actions are converging along the lines of the responses adopted by ESMA. However, the answers are also intended to help the industry participants by providing clarity as to the content of the AIFMD rules, rather than creating an extra layer of requirements. The document is updated on a regular basis following new questions received by ESMA.

At the time of writing, no questions related to the depositary function had been addressed in the Q&A. However, it is expected that the ESMA Q&A document will be updated shortly. Clarification is expected on the cash flow monitoring reconciliation duties, oversight responsibilities, look-through for the oversight responsibilities for cash deposits and on the recording of holdings in units of an investment fund by an AIF.

UCITS VI

The European Consultation issued a consultation for the publication of an UCITS VI text proposal in spring 2012. The main features of the current consultation paper are product rules, liquidity management, depositary passport, money market funds and long-term investments. The consultation demonstrates continuing regulatory scrutiny and seeks further improvement of the UCITS framework.

13 www.bit.ly/1qFyZ5D

Particular areas under review are:

- eligible assets for UCITS; in particular money market funds, securities lending, repurchase (repo) agreements and OTC derivatives within UCITS funds are under scrutiny
- enabling depositary banks' to operate throughout the EU (passport). Improving liquidity management within UCITS to avoid bottlenecks, as occurred in 2008

An UCITS VI text proposal is expected from the European Commission in 2015. The scope to be covered by this new proposal remains to be confirmed, although the scope of eligible assets should be the key priority for the Commission.

Private initiatives by the industry

T2S as common settlement platform for investment funds

The objective of this initiative is to define to what extent T2S could be used as a general settlement platform, respectively facilitating transnational realignment. For investment funds settling in euros outside national CSDs (mainly Luxembourg and Ireland), a recent T2S AG survey showed an average probability of 25.7%. AFME is open for a review and discussion to balance the various interests in the public and private sector.

ETFs – fragmentation of the European Market

As mentioned in the ETFs section, the European ETF market is many years behind that of the US. One reason is the fragmentation of the European market. Currently, many ETFs are cross-listed on several exchanges and cleared and settled in the national CSD associated with the exchange.

This structure creates frictions:

- operational risk and capital burden when trading ETFs across borders
- makes positions realignments cumbersome and expensive
- results in non-synchronised buy-in procedures and settlement cycles

ETF growth potential in Europe is fully justifying strong involvement of main stakeholders to deliver a more efficient post-trade environment. It is intended to carry out additional work, especially with CCPs and CSDs, to make it happen soon. New actions should help promote a more efficient post-trade plumbing in Europe to reduce liquidity fragmentation, bring the model closer to that of the US, and allow a significant growth of European ETF volumes.

T2S will help by making the post-trade environment more efficient, and a direct contributor to the design of the new landscape.

Transfer Agent Standardisation / Automation

Actions on notably instructions, order routing, settlement cycles, and settlement reconciliation would allow enhancing efficiency in the intermediary process chain. In this respect, a possible cooperation with ISSA could be put in place following the ISSA report, Out of Network Assets.[14]

14 www.issanet.org

Conclusions

Post-trade processes – those performed after the execution of a trade by the trading counterparties or the announcement of a corporate action event by an issuer – play a significant role in the financial sector.

To dismiss them as 'technical' details is inadequate. Post-trade services are an indispensable part of the end-to-end transaction and value chain – enabling as they do the discharge of obligations entered into at trading level, and the processing of corporate actions initiated by issuers for the benefit of investors.

The potential risk of a major disruption of highly intertwined post-trade processes has led to several EU regulatory initiatives, including EMIR, CSDR and MiFID/MiFIR, although post-trade financial market infrastructures have proven robust and resilient since the 2008 financial crisis.

Important work has also been performed by the private sector and by the ECB initiative Target2-Securities to harmonise and standardise post-trade processes to increase efficiency and reduce risk. Yet considerable gaps remain to be closed to achieve a single integrated European post-trade environment that warrants global competitiveness:

- European securities law reform is required to eliminate legal uncertainties
- a recovery and resolution regime for financial market infrastructures – in particular CCPs and CSDs offering banking services – will significantly reduce a component of systemic risk in Post Trade
- well-defined operational processes for withholding tax relief at source or standardised and quick refund procedures need to be implemented – if necessary by means of legislation

A synthesis of efficiency and safety and the combination of public sector authority and private sector expertise and experience is crucial to successfully conclude the process of European Post Trade reform. AFME and its members are committed to contributing their practical expertise in these complex operational issues.

Appendices

Appendix 1 – Target2-Securities (T2S)

T2S – background

While the European Union's Single Market and currency have delivered reduced exchange rate uncertainty – and to a certain extent price stability – its financial infrastructure remains largely fragmented. This is particularly apparent within the post-trade arena of securities settlement, safekeeping and asset servicing.

The rise of securities settlement across European countries, cross-border, has further exacerbated the disjointed nature of the post-trade financial ecosystem. Cross-border securities settlement is complex, involving at least two Central Securities Depositories (CSDs) and multiple intermediaries. This results in higher costs throughout the holding chain through to the end investor. The high cost of cross-border securities settlement is also caused by the lack of harmonisation on a legal, technical and fiscal level between member states.

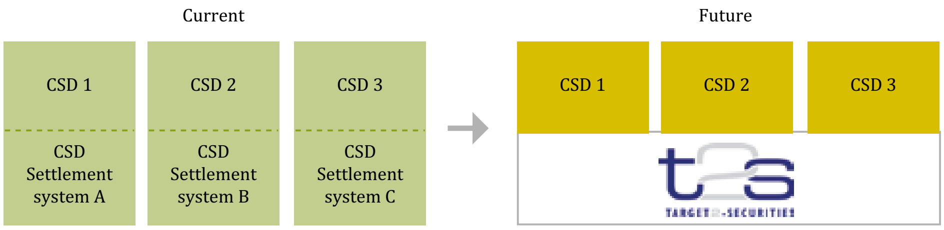
T2S is a Eurosystem[15] project, designed to facilitate the centralised securities settlement in the euro and other currencies. The pan-European system will go a long way to removing the current challenges and inefficiencies associated with cross-border securities settlements for participating national CSDs.

T2S – key points

The overall objective of T2S is to facilitate post-trading integration by supporting core, borderless and neutral pan-European cash and securities settlement in central bank money. This will enable CSDs to provide their participants with harmonised and commoditised securities settlement services in an integrated technical environment with efficient cross-border capabilities.

Owned and operated by the Eurosystem, T2S is built on the same concept as the Trans-European Automated Real-Time Gross Settlement Express Transfer System (TARGET2[16]) for cash movements. T2S is also a multicurrency securities settlement system. It will be capable of settling securities transactions from non-Euro markets, subject to the agreement and participation of the respective central banks.

The T2S system is capable of receiving securities settlement instructions, matching them and reaching delivery versus payment securities settlement – resulting in the generation of irrevocable booking entries. It will act as a technical platform to which the CSDs can outsource their settlement process (see figure below). CSDs continue to retain the ownership of custody accounts and other custodial services for their customers. Therefore they remain the designated settlement system under the Settlement Finality Directive.[17 18]



15 See also www.ecb.europa.eu/ecb/orga/escb/html/index.en.html

16 See also: www.ecb.europa.eu/paym/t2/html/index.en.html

17 See also: www.ec.europa.eu/internal_market/financial-markets/settlement/index_en.htm

18 See also: www.ec.europa.eu/finance/financial-markets/settlement/index_en.htm

The participating CSDs will migrate to the T2S system in a phased approach from June 2015. This approach is designed to be risk averse, while maintaining as much of an equal opportunity for the participating CSDs as possible.

The participating CSDs, together with their respective migration dates, are shown below:

Wave 1: 22 June 2015	Wave 2: 28 March 2016	Wave 3: 12 September 2016	Wave 4: 6 February 2017
• Bank of Greece Securities Settlement System (BOGS) • Monte Titoli S.p.A. (Italy) • Malta Stock Exchange • Depozitarul Central S.A. (Romania) • SIX SIS Ltd (Switzerland)	• National Bank of Belgium Securities Settlement System (NBB-SSS) • Euroclear Belgium • Euroclear France • Euroclear Nederland • Interbolsa (Portugal)	• Oesterreichische Kontrollbank Aktiengesellschaft (Austria) • VP Securities A/S (Denmark) • Clearstream Banking AG (Germany) • Központi Elszámolóház és Értéktár Zrt. – KELER (Hungary) • VP LUX S.à.r.l. (Luxembourg) • LuxCSD SA (Luxembourg)	• AS Eesti Väärtpaberikeskus (Estonia) • Euroclear Oy (Finland) • Lietuvos centrinis vertybinių popierių depozitoriumas (Lithuania) • KDD – Centralna klirinško depotna družba, d.d. (Slovenia) • Centrálny depozitár cenných papierov SR, a.s. (Slovakia) • Iberclear – (Spain)

T2S – outcome

The outcome of the T2S implementation will ultimately be a safer, more efficient securities settlement environment. However, there will be impacts to all participants in the post-trade arena as the T2S system is adopted.

Participating CSDs are the most affected in terms of development. The decommissioning of existing domestic securities settlement systems (reshaping), together with the adoption of new messaging standards, are both significant tasks. This, along with the increased competition between CSDs themselves, and also with sub-custodians, will result in the CSDs expanding their current suite of generally standard services.

The intermediary chain, comprising global Custodians and sub-custodians, will also be faced with both opportunities and challenges. While T2S presents the opportunity of reviewing existing sub-custody and connectivity arrangements for global custodians, it also poses challenges to sub-custodians in the form of increased competition from CSDs and potential reduction of securities settlement flow as their client bases explore direct connectivity models.

Investors will benefit from the introduction of T2S as CSDs reshape their systems and as the intermediary chain optimises its structure. Investors will see more aggressive settlement deadlines, together with harmonised procedures.

The high-level impacts are shown below:

Infrastructure (CSDs)	Intermediaries (Custodians)	Investors/Agents
• Significant Investment in existing systems to connect to T2S • Change to market charging structure • Increased competition between domestic CSDs that have historically maintained national monopolies • Opportunity to evolve into pan European CSDs • Opportunity to expand current suite of services • Potential future consolidation amongst CSDs • Allows competition with sub-custodians	• Global Custodians invest to adapt to new operating models • Global Custodian and sub-custodians will need to invest in systems upgrades to achieve full benefits • Sub-custodians face potential loss of revenues as global Custodians look to connect directly to T2S or directly to CSDs • Reduced net funding requirements	• Improved securities settlement deadlines • Harmonised securities settlement procedures • More accessible infrastructure • Requirement to automate settlement process to accommodate T+2 settlement • Safer settlement as central bank liquidity used

Appendix 2 – Trade confirmation

After every securities trade is executed between participants, a form of recognition is required between the two parties in the post-trade environment. This recognition could take the form of affirmation, matching or confirmation. Where a trade is executed on an exchange, MTF or OTF, these trades are by nature anonymous. There is no recognition of who was on the other side of the trade, and following execution the trades are sent to a central counterparty or CCP to be matched (see section 3.2 above on CCPs). The counterparty in effect throughout the life of this trade is the CCP.

Where the parties execute a trade bilaterally (directly between two parties) and are aware of each other, the trade may be confirmed either electronically or via a manual process. There are many vendors who provide platforms for buy- and sell-side firms to confirm trades with each other. The participants are predominantly executing brokers (sell-side firms), prime brokers or institutional clients (buy-side firms). Depending on the technology, and size of one of these participants, the degree of automation deployed for confirmation varies. Smaller firms, particularly on the buy-side, tend to use more manual processes such as email and spreadsheets, which could be considered as electronic communications, but require manual intervention and processing at every step thereafter.

With the advent of shortened settlement cycles, stricter settlement discipline and potential CSD consolidation, changes in the behaviour of many market participants will be required if securities are to continue to settle in an orderly manner. The issue took on heightened importance in 2014, when the use of vendor solutions to facilitate more of an electronic and STP level of affirmation, matching and confirmation became more prominent.

The outsourcing of technology solutions by participants to vendors has allowed the market to move forward with a greater degree of focus on Same Day Affirmation through the use of transformation services at these vendors. This practice insulates participants from non-standard protocols and standards by using vendors to translate spreadsheets into a common messaging protocol, for an efficient and recognised flow of communication between participants.

Many of the vendors operating an 'electronic system' provide for allocation, matching, confirmation and affirmation. The purchaser may have several underlying funds and decide that block confirmation should be the first stage. This process confirms the details of the parent trade (e.g. purchase, price, security). Once received, the client will send the fund allocations back to its counterparty. These will be updated with dealing costs and sent to the client as 'allocations'. This is the electronic equivalent of a paper contract note, providing all details of the trade, including the fund and the relevant account. The client will either agree and affirm this record or reject it with reasons why. This exchange of information can take a matter of minutes, as little or no manual intervention is required by either party after the trade is booked.

As the operating model environment evolves, and the focus on SDA grows, the need to capture settlement instructions as part of the individual allocation messages is becoming increasingly important. Such capture will ensure efficient settlement – in particular for those markets settling T+2. In addition, several of the trades executed are cross-border, e.g. in a European market with an Asia- or US-based client, reducing the time frame available to confirm.

Where counterparties prefer to confirm via a manual method such as email, the process can be significantly slower, as each step often requires comparison between an electronic record and the email.

AFME foresees significant benefit in requesting all counterparties to confirm electronically. Settlement on the second day after the transaction is completed (T+2) entered into force in Europe in October 2014. The US market has taken a keen interest in this transition and will follow at a date to be specified. Most Asian markets have yet to decide, but the short amount of time required for settlement will require automation of confirmations or more trades are likely to fail.

Appendix 3 – Description of funds

A **UCITS fund** (Undertaking for Collective Investment in Transferable Securities) is a European investment vehicle defined by the UCITS Directive – initially in 1985 and revised several times since (the fifth and sixth iterations of the UCITS Directives are in the EU legislative process).

The aim of this legislation is to allow UCITS funds to operate freely throughout the EU on the basis of a single authorisation from one member state ('passporting'), provided that the fund and the asset manager complies with a number of regulatory constraints in terms of (1) eligibility of assets, (2) organisational requirements, (3) transparency and (4) protection of assets of the fund and consequently of end-investors. A single depositary is to be appointed for the fund. UCITS are typically held by retail investors, and have become a global standard for structure and governance of mutual fund investment in the EU.

Alternative Investment Funds or AIFs are now regulated in the European Union via the AIFM Directive, which entered into force in July 2014. From a regulatory perspective, an AIF is a fund which is not a UCITS fund (as a result, not only hedge funds and private equity funds are captured by the AIFMD). These funds are not restricted from a legislative perspective on their investment policies: there are no constraints as such on eligible assets and AIFs can invest in very diverse categories of assets.

The new legislation also introduces a passport for AIFs and/or for AIFMD under certain conditions and mainly imposes new constraints on the AIFMs themselves (as organisational, risk management and transparency requirements). The AIFMD has also introduced the obligation to appoint a single depositary and of an independent valuer for each fund.

Appendix 4 – List of relevant abbreviations

AG	Advisory Group (of T2S)
AGC	Association of Global Custodians
AIFMD	Alternative Investment Fund Managers' Directive
AIMA	Alternative Investment Management Association
BoE	Bank of England
BIC	Bank Identification Code
BSG	Broad Stakeholder Group
CCP	Central Counterparty (clearing house)
CEO	Chief Executive Officer
CPSS	Committee on Payment and Settlement Systems
CRD	Capital Requirements Directive
CSD	Central Securities Depository
CSDR	Central Securities Depository Regulation
DATA	Depository and Trustee Association
DJIA	Dow Jones Industrial Average
DTCC	Depository Trust and Clearing Corporation (USA)
DvP	Delivery versus Payment
EBA	European Banking Authority
ECB	European Central Bank
EEA	European Economic Area
EFAMA	European Fund and Asset Management Association
EMIR	European Market Infrastructure Regulation
EPTG	European Post Trade Group
ESMA	European Securities and Markets Authority
ESES	Euroclear Settlement for Euronext Securities
ETF	Exchange Traded Fund
EU	European Union
FCA	Financial Conduct Authority
FMI	Financial Markets Infrastructure
FSAP	Financial Services Action Plan

G20	Group of 20 (major nations)
GBP	The British pound
GCM	General Clearing Member
GDP	Gross Domestic Product
ICSD	International Central Securities Depository
IMA	Investment Management Association
IMF	International Monetary Fund
IOSCO	International Organisation of Securities Committees
ISIN	International Securities Identification Number
ISSA	International Securities Services Association
MEPs	Members of the European Parliament
MTF	Multilateral Trading Facility
MiFID/R	Markets in Financial Instruments Directive / Regulation
NCM	Non Clearing Member
OTC	Over the Counter
OTF	Organised Trading Facility
PRA	Prudential Regulation Authority
SDA	Same Day Affirmation
SICAV	Société d'Investissement à Capital Variable
SIFMA	Securities Industry and Financial Markets Association
SIV	Structured Investment Vehicle
SP	Single Platform (Euroclear project)
SSE	Single Settlement Engine (Euroclear project)
SSS	Securities Settlement System
STP	Straight Through Processing
TARGET	Trans-European Automated Real-Time Gross Settlement Express Transfer System
T2S	Target2-Securities (ECB securities settlement project)
T-BAG	Tax Barriers Business Advisory Group (European Commission)
UCITS	Undertakings for Collective Investment in Transferable Securities

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Appendix 6 – Links

Proposals to harmonise and standardise pre-settlement date matching processes throughout Europe
www.bit.ly/1v4g5Fe

AFME / ESSF position paper: European Commission's adoption of a recommendation on withholding tax relief procedures as of October 2009
www.bit.ly/1y00LdO

White Paper: A roadmap for integrated, safe and efficient post trade services in Europe – an integral part of the European single market vision
www.bit.ly/14YQlRb

Market Standards for Corporate Actions Processing, revised version 2012
www.bit.ly/1xV2LmF

ESSF Custody Committee Task Force Shareholder Reg proposal 4 Jun 10
www.bit.ly/1zZgdGu

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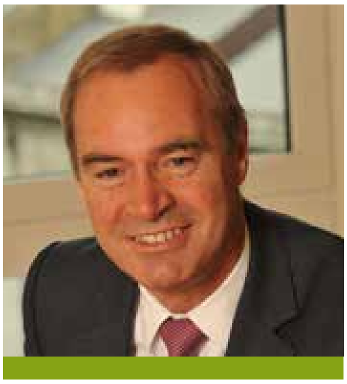

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/ About AFME

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