



DEUTSCHE BÖRSE
GROUP

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Global Funding and Financing

Newsletter 2017



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Holistic repo services for buy-side customers

Deutsche Börse Group offers holistic services which help buy-side participants meet all their repo trading and post-trading needs, including collateral management and re-use for derivative margining. The new Select Finance service for CCP-cleared and the eTriParty service for Non-CCP triparty repo trading complete the product suite to give buy-side customers access to all repo types.

Deutsche Börse repo services provide e. g. corporates, asset managers and insurance companies with integrated secured funding and financing solutions. All typical repo types are covered, including fixed and floating rates as well as from fixed terms to open repo. The repos can be centrally cleared by Eurex Clearing as central counterparty (CCP) while the collateral management can be performed by Clearstream.

Deutsche Börse recently launched two new repo products for buy-side customers, eTriParty and Select Finance, which will enable them to meet all their funding and financing needs from one provider in a fully collateralised manner.

eTriParty: Non-CCP, electronically traded, triparty repos

The eTriParty service brings the sellside and the buy-side together via open quote triparty repo trading against standardised collateral baskets. While the trades are executed on Eurex Repo's electronic bilateral repo trading system F7, the triparty collateral management is provided by Clearstream.

With eTriParty, traders can choose between standard and flexible terms ranging from overnight to two years. Individual trade negotiations are also possible. Clearstream acts as the triparty agent and customers

benefit from comprehensive collateral management services, including automatic collateral allocation and real-time substitution. The collateral received can be reused to cover other exposures, for example in GC Pooling or for Eurex Clearing margining purposes.

Select Finance: centrally cleared bilateral repo services for the buy-side

The new Select Finance service enables pension funds, asset managers and insurance companies to maximise the use of their assets by giving them access to Deutsche Börse's CCP-cleared repo services.

Thanks to a dedicated clearing license provided by Eurex Clearing (ISA Direct for Repo), buy-side customers can benefit from the safety of central clearing and exposure netting against other centrally cleared business at Eurex Clearing.

For example, Select Finance gives the buy-side access to the highly liquid interbank GC Pooling Market as well as to the Repo Market (baskets/single ISINs). Both services enable buy-side customers to trade repo transactions with over 150 financial institutions. Taken together, the services cover around 25,000 ISINs and provide funding and financing opportunities from same day up to two years in EUR, USD, CHF and GBP.

GC Pooling in turn gives the buy-side access to Clearstream's triparty collateral management. In fact, GC Pooling customers also get technical connectivity to over 600 Clearstream counterparties.

This means that buy-side customers can leverage Select Finance for further triparty repo services.

Services in support of OTC derivatives

Around the world, regulations such as EMIR and Dodd-Frank are imposing stringent clearing and margining requirements on all OTC derivatives products. This will have a major impact on both sellside and buy-side customers. All initial margin requirements are being phased in over a number of years, depending on the average aggregate notional amount of Non-CCP derivatives traded by individual entities.

The new Non-CCP margin rules apply globally but have first been implemented in the US and Japan with the EU, Switzerland, Singapore, Hong Kong and Australia to follow in 2017. The majority of banks or dealers are already implementing the changes needed to collateralise house or client clearing obligations as well as to meet the regulatory requirements for initial margin segregation.

Streamlined processes

However, many buy-side firms still need to decide how they can efficiently meet and manage collateral requirements going forward. Within this context, outsourcing all aspects of their margining activities to a triparty agent such as Clearstream is proving an attractive alternative to the development of costly in-house solutions. Deutsche Börse offers an entire suite of services for both CCP-cleared and Non-CCP OTC derivatives, including the management of collateral related to both initial and variation margin requirements.

A simplified legal framework

In addition to streamlining some of the operational and administrative processes related to collateral management, customers also benefit from a simplified legal framework that expedites access to multiple counterparties.

Clearstream offers standardised contracts in cooperation with ISDA for Non-CCP initial margining, comprising a collateral transfer and

security agreement. These documents, together with an ISDA master agreement and a standardised collateral schedule, set out a common framework for the core terms governing the exchange of initial margin. Additional terms such as concentration limits, eligible collateral and haircuts can be tailored to each counterparty on a bilateral basis.

One-stop shop solution

Clearstream is a one-stop-shop for the collateral management of OTC derivatives in the new regulatory environment. Margin management services for CCP-cleared and Non-CCP derivatives include OTC collateral management for variation margin and triparty services for the segregation and management of initial margin. Customers can leverage their existing accounts at Clearstream to meet these regulatory requirements with minimum operational impact and in a cost-efficient manner.

Global margining checklist

- Identify which of the products you trade are centrally cleared or Non-CCP OTC derivatives
- Confirm your Non-CCP OTC derivative counterparty pairings and their respective phase-in periods as soon as possible
- Understand the onboarding, documentation and operational requirements of your custodian and your counterparties
- Initiate the setup of any required collateral accounts in a timely manner
- Diversify your funding and financing network to be able to place and raise cash efficiently
- Leverage and integrate some of the scalable solutions developed for and by the sellside.

Securities lending services

Deutsche Börse Group is currently aligning its securities lending services to offer customers a more holistic suite of services. For example, the new agency lending service via a CCP brings customers the best trading, clearing, settlement and collateral management services from across the Group.

Agency lending via CCP (Eurex Clearing) is an attractive means of enhancing yield through strategic lending while minimising credit and systemic risk since the CCP is the legal counterparty to all loans.

Secure, streamlined services

The service offers customers the best of Deutsche Börse Group: While the bilateral negotiation is managed by Clearstream, the actual trading is done on the electronic Eurex Repo trading system F7.

On the clearing side, Eurex performs the exchange of the loan against the collateral (collateral and loan collection and distribution). In doing so, Eurex Clearing is the legal counterparty to the clearing members on the borrowing and the lending side at loan level.

Clearstream then manages the collateral in its function as a neutral triparty collateral agent.

Benefits for lenders and borrowers

Both lenders and borrowers enjoy low credit and systemic risk since the CCP is the counterparty. Lenders benefit from increased yield on their securities. A specific lender license from Eurex Clearing enables beneficial owners to be lending-only clearing participants. License holders receive pledged securities as collateral which does not create a risk position for the CCP. As a result, lenders are neither required to pay margin for the underlying transactions nor to contribute to the CCP's default fund.

For borrowers, the service offers secure lending at low capital cost as regulations render centrally

cleared business more capital efficient than bilateral loans. Generally speaking, borrowers can use strategic lending as an additional source of liquidity which opens up possibilities for collateral use.

Planned service upgrades

Following the successful rollout of the agency lending via CCP service, it will be further upgraded in the coming months. Service enhancements include exposure netting for triparty collateral agents and multiple loan allocation for agent lenders. The specific lender license will be made available in additional jurisdictions and its holders will benefit from improved principal collateral management services. In addition, lending services for equities will gradually be rolled out in the UK and T2S markets. To this end, next to Clearstream as a lending agent, BNY Mellon has been integrated as a triparty collateral agent and is scheduled to commence trading as an agent lender in early 2017 for both equity and fixed income financing.

The Lending CCP model has met with widespread interest in the market and initial subscribers include Morgan Stanley, Natixis, Société Générale, Deka Bank and ZKB. Volumes steadily increased to EUR 4 bn notional on loan in December 2016.

A holistic suite of services

The CCP agency lending service is part of an entire suite of securities lending services offered by Deutsche Börse. In addition to Clearstream's agency securities lending services, customers can also benefit from direct participation in Eurex Repo's electronic SecLend Market while Eurex Clearing still centrally clears the loans.

Further securities lending services by Clearstream include a principal securities lending service in which Clearstream takes on the counterparty risk (ASLplus). In addition, assets can also be distributed via the automated securities lending service to cover settlement fails in which Clearstream acts as a lender of last resort (ASL).

Repo and securities lending services for central banks

Since March 2015, central banks have acquired over EUR 1 trillion of government debt under the European Central Bank's Public Sector Purchase Programme (PSPP). To avoid the creation of a collateral shortage through this significant withdrawal of high-quality liquid assets (HQLA) from the market, the ECB actively encourages national central banks to reinject the securities into the market via repos or securities lending.

Bilateral repo facilities for cash and securities as collateral

To make it easier for central banks to meet this objective, the European Central Bank recently decided to extend the PSPP to December 2017 and now also permits the use of cash as collateral for central banks with a bilateral repo facility. This means that the ECB and the central banks of Belgium, France, Germany, Ireland, Spain and the Netherlands can now use bilateral reverse repos to reinject the securities into the market without needing to reinvest the cash they receive.

The Deutsche Börse repo and securities lending services are the ideal tool for Eurosystem central banks to meet this ECB mandate as Clearstream accepts cash as collateral for bilateral repos and bilateral securities lending via a CCP such as Eurex Clearing.

CCP-cleared and Non-CCP securities lending services

Central banks can also choose the agency securities lending service via CCP for this purpose. The service is offered jointly by Eurex Repo, Eurex Clearing and Clearstream (acting as both the lending and the collateral agent). This service is especially attractive for central banks wishing to reinject large volumes of securities into the market as the CCP is more efficient than bilateral repos thanks to exposure netting opportunities. In addition, the CCP meets the safety requirements of central banks as it disintermediates counterparty risk and enables anonymous lending.

For those central banks wishing to continue reinjecting securities into the market while remaining cash neutral, Clearstream's automated securities lending and borrowing (ASL) and strategic securities lending (ASLplus) programmes are the lending services of choice. These services are used by several central banks including Deutsche Bundesbank and Banca d'Italia for securities purchased under the PSPP.

In sum, Deutsche Börse helps central banks meet their ECB mandate to reinject the securities purchased under the PSPP into the market. Central banks have a wide choice of channels to do so, from bilateral repos and securities lending setups to triparty securities lending services which can all be cleared by a CCP to enable the use of cash as collateral.

Global Funding and Financing with T2S

Clearstream will offer harmonised collateral management and securities lending services for both CSD and ICSD customers once Clearstream joins TARGET2-Securities (T2S). Customers will be able to pool all their assets, including equity, at Clearstream's CSD in Germany, thereby making it their gateway to T2S.

Harmonised CSD and ICSD collateral management services

Once Clearstream migrates its CSD settlement to T2S, there will be full triparty interoperability between Clearstream's CSD and the ICSD. This means that a single system will enable customers to pool collateral across Clearstream, thereby optimising collateral use across locations and facilitating liquidity management.

Thanks to these harmonised services, customers will be able to use all assets held at Clearstream's ICSD and at the CSD for all collateral management services. Whereas customers had to realign their assets from the CSD to the ICSD to use them as collateral for triparty services in the past, assets will automatically be realigned between both entities under the new setup.

All Clearstream collateral management products will be serviced by one single platform. In combination with T2S, customers will therefore have a choice between commercial and central bank money

settlement of their Euro triparty repos activity. The central bank money option enables customers to centralise the settlement of their entire Euro repo activity (Non-CCP and centrally cleared bilateral repo, triparty repo and centrally cleared GC Pooling® transactions) on the same account. Local regulations permitting, this centralisation in turn creates cash and balance sheet netting opportunities.

All Clearstream collateral management products will be serviced by the new collateral platform as of March 2017.

Harmonised CSD and ICSD securities lending services

Clearstream will offer a new fails lending service to enhance settlement efficiency on T2S. This service will also be based on CSD and ICSD interoperability, enabling customers to borrow from or lend a single pool of securities across all asset classes and locations.

The collateral management for the fails lending service will also be performed in a harmonised manner by the new collateral management platform. The service level will be equivalent to the standard ICSD fails lending service (ASL) for both borrowers and lenders, regardless of their settlement and custody location. The new service will be fully functional in June and will complement existing securities lending offers.

Timeline

The harmonised collateral management and securities lending services will be rolled out in line with the overall T2S implementation and the T2S market coverage of Clearstream's CSD in Germany. In addition to German assets, customers will eventually also be able to pool Austrian, Belgian, French, Dutch, Italian and Spanish assets at Clearstream's CSD.

T2S implementation timeline

	Implementation milestone	ISINs eligible for collateral pooling and securities lending at Clearstream for T2S
February 2017	Clearstream joins T2S, fails lending service is rolled out	DE
March 2017	Rollout of harmonised ICSD and CSD collateral management services and pooling facility for CSD and ICSD collateral with automated flows.	DE
June 2017	Enhancement of fails lending service	DE
Q4 2017	Asset servicing with T2S (local market partnerships) will be gradually implemented across markets. Once the asset servicing has been set up, T2S-eligible assets from these markets can be used as collateral or fails lending with T2S regardless of whether the assets are held at Clearstream's ICSD or the CSD.	ESES, ES
2018	Once the asset servicing has been fully implemented, all T2S-eligible assets can be pooled at Clearstream for collateral management and securities lending.	All T2S markets

GC Pooling update

We are constantly expanding our GC Pooling services globally to significantly increase the cross-border use of assets. Recent service upgrades include the introduction of GBP as a new cash currency and an extended equity basket.

GC Pooling offers a user-friendly electronic marketplace for secured money market trading in standardised fixed-income and equity baskets on an anonymous basis. Customers are provided with a single point of access to straight-through processing services from several Deutsche Börse Group entities: Eurex Repo provides electronic trading, Eurex Clearing clears the trade and Clearstream performs the settlement and the collateral management.

Customers can choose from standardised fixed income and equity collateral baskets as well as baskets of ECB-eligible securities which can be reused directly to access ECB credit facilities. The GC Pooling equity basket was redefined in 2016 to enable a better diversification of collateral: whereas it previously contained securities included in the HDAX® it is now based on a whole group of European indexes, including AEX®, CAC 40®, DAX® and EURO STOXX 50®.

Extended collateral eligibility

In addition to EUR, CHF and USD funding, customers can now benefit from GBP funding. GBP is available as a cash currency for all GC Pooling baskets and customers benefit from the same reuse possibilities with Clearstream's collateral management services as for other currencies. While trading will initially be restricted to non-overnight terms, the service will be extended to overnight terms next year.

In a further move to improve GC Pooling services for the UK-based asset managers, customers are also able to trade inflation-linked GILTs on the platform. This means that UK GILTs are eligible as collateral for GC Pooling. The services for GBP are up and running and a significant increase in GBP outstanding volumes can already be observed.

Services for the Luxembourgish market have also been improved: customers in Luxembourg now have the possibility to reuse assets received in GC Pooling as collateral for their triparty activity via Banque Centrale du Luxembourg.

F7 – a cutting-edge trading system

F7 is Eurex Repo's web-based trading system. It is integrated into the IT infrastructure of Deutsche Börse Group which enables a leased line connection via the Group network. Independent software vendors offer participants alternative front-end choices to Eurex Repo's own web-based F7 user interface, thereby giving a greater number of market participants access to the trading system.

In addition to software vendors, F7 can be connected to other market participants such as custodians and clearing houses. For example, F7 has been linked to Clearstream and Eurex Clearing's C7 for joint services such as GC Pooling and eTriParty. Going forward, these links to other Deutsche Börse Group entities will be strengthened to provide a basis for a further consolidation of Global Funding and Financing services.

Awards 2016

Clearstream

In 2016, Clearstream was again recognised for its leadership in collateral management and securities lending:

For example, Clearstream won Risk magazine's Collateral Management Services Provider of the Year award in recognition of the high quality of services.

Clearstream's securities lending services won three awards from Global Investor/ISF magazine in 2016. Clearstream was declared the overall winner in the Asia-Pacific region and was highly commended on a global level as well as EMEA for the third time running. Clearstream was also given the prize of most innovative lender for the second year in a row, in recognition of leading services for central banks.

Clearstream also achieved excellent results in the Global Custodian magazine's 2016 Tri-Party Securities Financing Survey, reaching the highest scores in all service areas.

Eurex Clearing

Derivative markets faced widespread regulatory changes in 2016, with both mandatory clearing of some products as well as the margin rules for Non-CCP swaps entering into force. The buy-side has traditionally been wary of direct clearing due to the cost of clearing and the risks faced by members of the default funds.

In response, Eurex Clearing launched ISA Direct, a clearing service aimed at pension funds, insurance firms and investment funds. The new membership type allows buy-side participants to have a direct contractual relationship with the clearinghouse facilitated by a clearing agent.

Eurex Clearing won two awards for the ISA Direct model in 2016: Eurex Clearing was named 'Clearing House of the Year' at GlobalCapital's 2016 awards and ISA Direct was awarded 'Best Technology Innovation' by FOW.

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