Securities Lending Market Report

An ISLA Publication

14th Edition - March 2021

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Foreword

Alessandro Cozzani

Deputy Chairman, ISLA Board

Welcome to ISLA's 14th edition of the Securities Lending Market Report.

During these extraordinary times, where working routines are being disrupted and life at home is in perpetual flux, there are few things that are constant in this sea of change. I hope you will find some comfort in reading through this edition of the Market Report, one of the customary pieces that ISLA has been publishing for many years.

As we look back on 2020, it has been a tale of two cities; the first half of the year characterised by extreme volatility and large drops in valuations for global indices, while the second half was a tale of recovery, with news of the vaccine bringing impetus to the markets and taking equity valuations to new highs. Against this backdrop, the securities lending market has shown extreme resiliency, serving its role as a liquidity and credit intermediation mechanism for institutional investors, who during volatile periods were confronted with the need to adjust their portfolios as frequently as we have ever seen.

In our Market Highlights section, we cover some of the changing dynamics observed during the second half of the year. These were notably driven by liquidity and market requirements, evidenced by the large variance in collateral preferences throughout the period, volatile money market rates, and the ever-present regulatory requirements to adhere to.

From a regulatory perspective, EU governing bodies decided to postpone a few important pending regulations due to the pandemic, acknowledging that working regimes were being disrupted and therefore impacting regulatory preparedness. CSDR was postponed by a year to February 2022, NSFR was postponed in the UK by six months to January 2022. Meanwhile, in the US the Federal Reserve published its final NSFR rules, which saw a calibration towards a more benign treatment for repo transactions.

In a year characterized by disruption and volatility, one would have expected all this to have had some effect on the year-end reporting period. Notoriously choppy due to its importance for many financial disclosures, the year-end went by without so much as a hiccup. Granted, we did see some richness in repo markets, but nothing that we hadn't experienced before, and only for a week or so. Despite market participants predicting large liquidity imbalances driven by the confluence of Brexit go-live and market volatility, it seems as though the UK's departure from the European Union was nothing more than a calendar date for the securities lending markets. I'd like to think this was due to the years of preparation and countless legislative delays, which allowed everyone to be ready to trade with the right entity in the right jurisdiction.

Digital connectivity was definitely one of the themes of the year, with technology taking centre stage in allowing us to continue working and being productive in a "contactless" environment. The ISLA team were hard at work to bring you market and regulatory news, strengthening and adding to our working groups, as well as preparing and hosting virtual events. A few weeks ago, we launched a weekly newsletter covering the full breadth of the securities lending regional markets in the EMEA region, sourced from the industry's latest trade publications. Be sure to check out all this and more on our new webpage domain www. islaemea. org.

> *Against this backdrop, the securities lending market has shown extreme resiliency, serving its role as a liquidity and credit intermediation mechanism for institutional investors, who during volatile periods were confronted with the need to adjust their portfolios as frequently as we have ever seen*

I hope you enjoy this edition of the Securities Lending Market Report, featuring some interesting articles on the year's events from the perspective of beneficial owners, an update on ETFs and the steady progress this asset class is making in Europe, as well as an analysis of the future or securities services in the new digital era. I am happy to see that all of them are underpinned by a theme of transformation and evolution, one that ISLA is proud to help you navigate.

In closing, I would like to thank our data partners: Triparty agents BNY Mellon, Euroclear, Clearstream and JP Morgan; market data firms Datalend, IHS Markit and FIS Global for providing the backdrop to our analysis of a uniquely remarkable year.

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Market Volatility (VIX)
Back to normal levels

23
Pandemic announcements becoming background to business as usual, limiting impacts on volatility

Sovereign Wealth Funds
14% & 20%
Reported percentage of total lendable & on-loan balances respectively

€2.3Tn
Securities On-Loan
Marginal increase

Brexit
End of transition phase for UK to leave EU necessitates an increasing consideration of equivalence

€24Tn
Lendable Assets
Increase from €20tn

COVID-19
Development of vaccines will see a progressive return to normality with markets brushing off economic concerns associated with COVID

$7.7Bn
Revenues
Reported revenues down 12% compared to the same period in 2019

Global Trends

Bond Markets

35.35%
Utilisation
Marginal Increase

Increase in-line with recovering equity markets allowing for a higher proportion of non-cash business

€ 1.1Bn
Securities On-Loan
Marginal Increase

Market Highlights as at December 2020

Collateral

Corporate Bonds Held in European Tri-party
Down from 34%
10%

Global Equities Held in European Tri-party
Up from 13%
44%

Asian Government Bonds Held in European Tri-party
Up from 25%
33%

Equity Markets

Lendable Assets
Increase of 17% directly related to asset price appreciation
€17Tn

Securities On-Loan
Marginal Decrease
€981Bn

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Global Market Dynamics

As 2020 begins to recede into the past, it will be interesting to think what future historians will make of one of the most extraordinary years in the history of the modern world. In our last Report published in August 2020, we looked in detail at how the effects of the COVID-19 pandemic had swept across the financial markets in the first six months of the year. The pre-Brexit optimism seen in the UK in early January was rapidly replaced by a much more somber mood, as the pandemic affected almost every element of our daily lives.

What unfolded during February and March across Europe and latterly across the rest of the world, touched almost every single person on the planet, drawing in all elements of society as we grappled with a global health emergency not seen in a generation. At both a corporate and a personal level, much changed and at times very quickly. We have all now become familiar with previously novel concepts such as working from home, and how on-line shopping has evolved in such a way as to leave traditional high street shopping settings redundant.

The second half of 2020 was equally challenging, reflecting the changing shape of the pandemic and how as the virus evolved, society itself having to adapt. Any suggestions that governments and healthcare organisations were winning the battle with COVID-19 were undermined as new variants of the virus emerged.

This in turn led to severe pressure on health care systems, with the much feared second wave being seen across Europe and elsewhere. Further punitive lockdowns were implemented by governments, and although seen by some as overly restrictive, they are known to work at limiting further spread.

Early investment in large scale vaccines also appeared to be paying off, as several different but equally effective ones began to be approved by regulators in November. As these vaccines are progressively rolled out, we should begin to see a return to some sort of normality, particularly when more vulnerable groups within society are vaccinated, thereby reducing underlying pressures on health care systems.

At times the second six months of 2020 felt as if everything that we judge our lives by, was changing almost daily with the media almost totally fixated on nothing but COVID. Events such as the US presidential election and the UK finally leaving the European Union that would normally command significant airtime and the attention of political commentators, for the most part passed almost unnoticed. This apparent indifference only changed when we saw more extreme events around the outcome of the US elections, and perhaps then it was realised that the Brexit deal was not all that it might seem.

Set against a backdrop of at times apparent chaos, it was perhaps surprising that financial markets appeared to have fared reasonably well in the second half of 2020. During the first iteration of the pandemic in early 2020 as the global health crisis developed into an economic one, we saw unprecedented levels of market volatility, including eight consecutive days when equity markets moved by more than 5%. On March 16, the VIX, the globally recognised index of the markets expectation of future volatility peeked at 85. This led directly to significant intervention measures from central banks and governments, as they moved quickly to restore confidence.

The picture in the second half of the year was somewhat different. The VIX closed the full year at 30 and had traded in a range of between 20 and 40 throughout the second half of 2020 (at the time of writing, it is at circa 20). Perusal of the VIX during this period would suggest investors had become more sanguine about the almost daily announcements around the pandemic, with limited negative impacts on either market valuations or assumed volatility. Similarly, equity markets themselves recovered much of their poise in the second half of the year. Using the S&P as a strong proxy for overall equity markets, after the period of intense volatility and short-term losses in March of 2020, the value of the S&P index had grown steadily throughout the rest of the year, closing at 3756 on 31 December (some 68% higher than the lows seen in late March).

> *Some commentators have argued that the disconnect between the rarified worlds of international capital markets and the real-world economy, has increased during the pandemic, with the continued rise in stock markets very much at odds with the daily toll of job losses and individual economic hardships.*

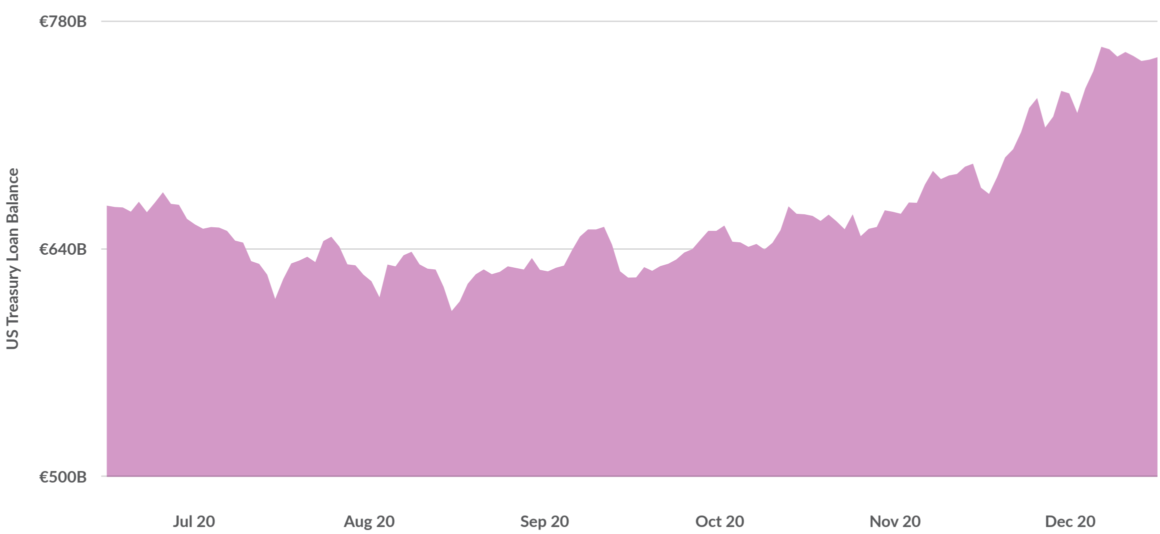
Some commentators have argued that the disconnect between the rarified worlds of international capital markets and the real-world economy has increased during the pandemic, with the continued rise in stock markets very much at odds with the daily toll of job losses and individual economic hardships. This idea is perhaps where the more recent market disruption around GameStop has its origins, as the so-called populist movement against Wall Street has gained both momentum and media attention.

As governments grapple with trying to balance the very real need to control the pandemic with the desire to grow economies again, we have seen further intervention in the form of quantitative easing, with central banks pumping liquidity into the markets. Interest rates have also remained at historically low levels, to provide a further stimulus to economic activity which may in part be driving stock market returns.

The combination of central bank stimulus and low interest rates has led to a rush of company financings. Recent press reports suggest that in the first four weeks of 2021, companies raised some €330 billion in new debt issuance suggesting that investors were unphased by the immediate impacts of the virus and were looking past the current crisis. As companies opportunistically accessed investor demand, governments also tapped into those same institutional flows, with significant new issuance of government bonds. Since the start of April 2020, the US Federal Reserve (Fed) raised a net $3.3 trillion to fund its stimulus programmes, expanding the stock of US government bonds by 19%. In the UK, planned new issuance of Gilts in 2020 rose from an original target of £156 billion, to over £480 billion by the year-end. The sheer scale of new issuance, especially in the US, has raised some interesting questions around the smooth functioning of these markets. As the US government issues new debt, they rely on primary dealers to buy new issues and then act as intermediaries for institutional investors who may wish to trade with each other. During periods of market stress (as was seen in March 2020 through a combination of new issuance and institutional investors unwinding their holdings), primary dealers can become swamped with Treasuries. This in turn may lead to a point where the primary dealers involved, who are mainly prudentially regulated banks may breach their capital requirements. The close link between primary market making in US Treasuries and the repo market is a well understood concept, with primary dealers using the repo market to fund their long inventory positions against cash to help manage their own balance sheets and capital usage. However, when either new issuance or the Fed's open market operations suck cash liquidity from the markets, it can cause a spike in short-term cash interest rates, effectively dislocating the important link between these two markets. These sudden spikes in short term cash rates can also bleed into our markets driving excessive securities lending fees.

The following on-loan profile for US Treasuries highlights how demand to access this asset class developed strongly in the second half of 2020. Whilst the reasons behind this increasing demand may be varied, it is likely that as the Fed's stimulus-driven asset purchases drew securities from the market, borrowers looked to alternative markets including securities lending pools to meet their demands. Another factor that will have contributed to the increase in demand to borrow US Treasuries, will have been US Dollar foreign exchange rates over the year-end.

Fig 1: US Treasury Bonds On-Loan *Source: IHS Markit*

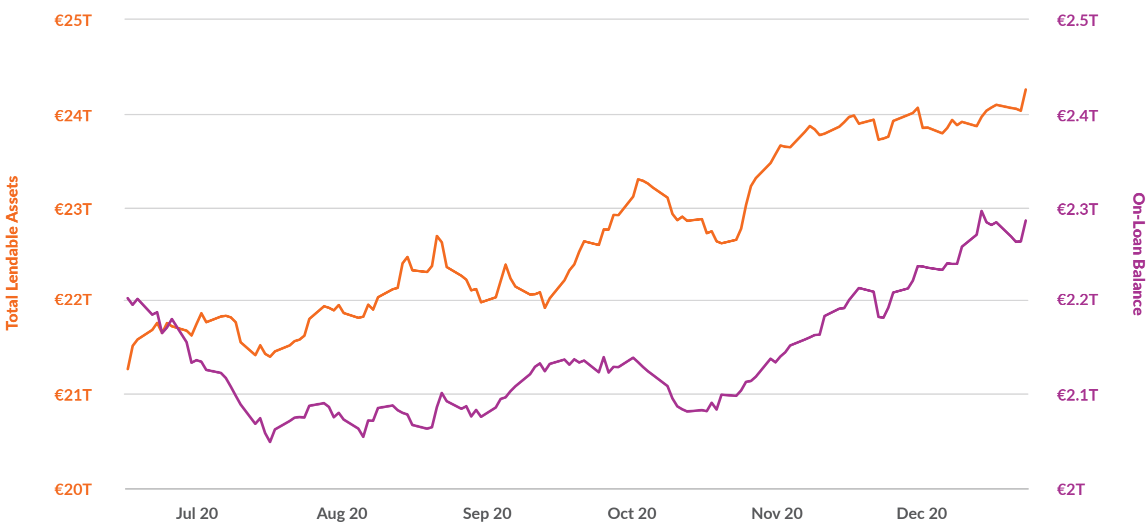


As we look at how markets have reacted to the pandemic, we have seen occasional but at times very notable events or outcomes that have led to something of a re-evaluation of how we think about risk, and to an extent how markets behave. The eminent British Prime Minister, Benjamin Disraeli once said, "What we anticipate seldom occurs: but what we least expect generally happens." His words resonate very loudly from history when we look at what happened in November last year. Quant funds use powerful systems to analyse market data and find patterns or trends that may predict future prices. This long-short momentum (buying recent winners and selling recent losers) was a successful strategy throughout 2020. However, when on 9 November news broke that an effective vaccine for COVID had been approved, they experienced their worst day ever. Quant strategies rely on using history as a reasonable indicator for the future. Consequently, if something happens that is without precedent such as a vaccine in the middle of a pandemic, the models don't quite work, leading to heavy losses. At one level, this suggests that we should be mindful of how events such as this can change the way we think about market risk, but they also highlight how truly transparent and effective they can be.

Not unexpectedly, many of the macro economic and political themes that drove markets at a higher level, fed through into securities finance markets in the final six months. As the following chart from IHS Markit highlights, there were some €24 trillion of securities being made available for securities lending by institutional investors at 31 December, a €3 trillion increase from the €21 trillion reported six months earlier. This apparent increase must be set against the context of wider market movements.

The eminent British Prime Minister, Benjamin Disraeli once said, "What we anticipate seldom occurs: but what we least expect generally happens." His words resonate very loudly from history when we look at what happened in November last year.

Fig 2: Global Securities Lending Market (Equities and Fixed Income) *Source: IHS Markit*

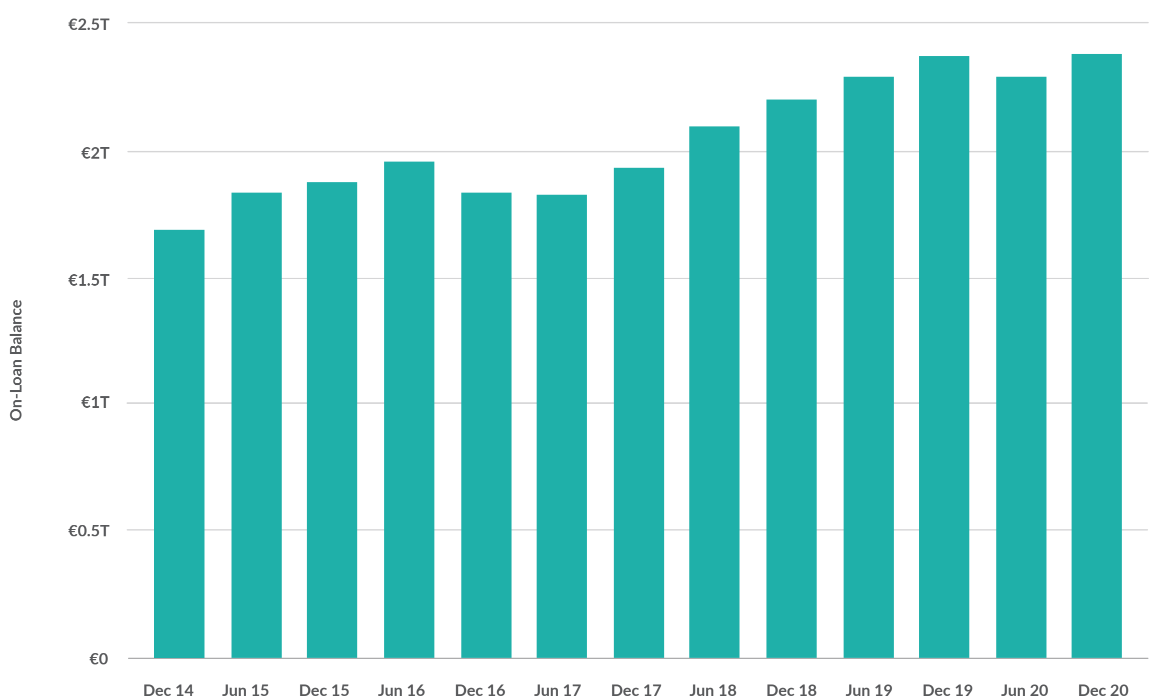


Exceptionally low or even negative interest rates also limited the scope to effectively reinvest cash collateral, thereby pushing lenders away from cash collateral and reducing lending volumes.

We have discussed previously how much of the data we use to compile this report, is value rather than volume based, making it inevitably subject to external market trends and changing valuations. Consequently, and although we do note an increase of some 14% over the period, this increase has to be viewed through the lens of a 21% increase in the S&P global index over the same period. If these factors are considered, it is likely that securities being made available for lending remained broadly unchanged. This idea is supported by further anectodical feedback from our members that suggest that this was the case.

From a trading perspective, after a falloff in on-loan balances during the summer months, balances broadly increased into the year-end, closing the year at €2.4 trillion. This meant that the Global Lending Aggregate showed a slight increase from the €2.3 reported in June, returning to 2019 levels.

Fig 3: ISLA Global Securities Lending Aggregate *Source: ISLA*



In terms of overall profitability, the second half of the year provided little solace for lenders. After the short selling bans in Europe and Asia in the first half of the year that led to suppressed demand and wider fee compression, the second half of 2020 was typified by robust growth across equity markets which choked off demand from the hedge fund community. Exceptionally low or even negative interest rates also limited the scope to effectively reinvest cash collateral, thereby pushing lenders away from cash collateral and reducing lending volumes. Recently published data by DataLend, specific to Lender to Broker activity, suggests that the securities finance industry generated $7.66 billion in revenues in 2020, compared to $8.66 and $9.96 billion in 2019 and 2018 respectively.

As we have developed a better understanding of how our markets work and interact with the wider capital markets ecosystem, we are always aware of the pivotal role that institutional investors play in making their securities available for lending. It is important that we always acknowledge that securities lending is seen as a discretionary activity that allows institutional investors to generate incremental income as part of their overall stewardship responsibilities. As such, it is important that we as an association work with this community to better understand their concerns and try wherever possible to provide help and guidance around important topics such as Environmental Social and Governance (ESG), collateral screening, as well as developing our advocacy messaging to support their objectives. As part of that process, we have for some time tracked the relationship between assets being made available for lending by institutional investors, and what is being lent from the perspective of the various institutional investors participating across the industry.

The following two charts provided by DataLend highlight this dispersal, and give a clear indication as to how our industry is currently organised as well as the impact that regulation is having on both revenues and active participation in these markets.

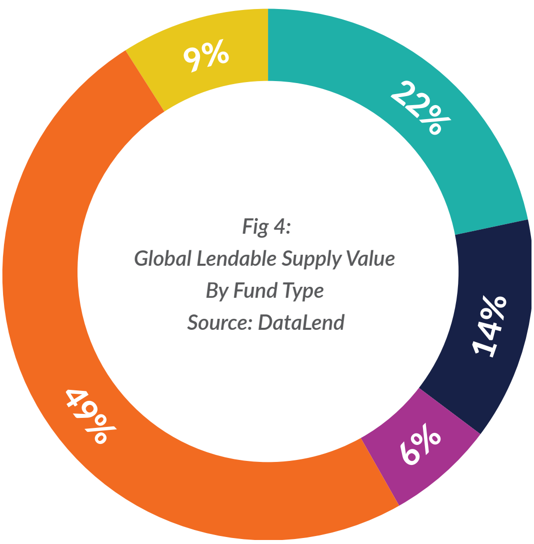


Fig 4:
Global Lendable Supply Value
By Fund Type
Source: DataLend

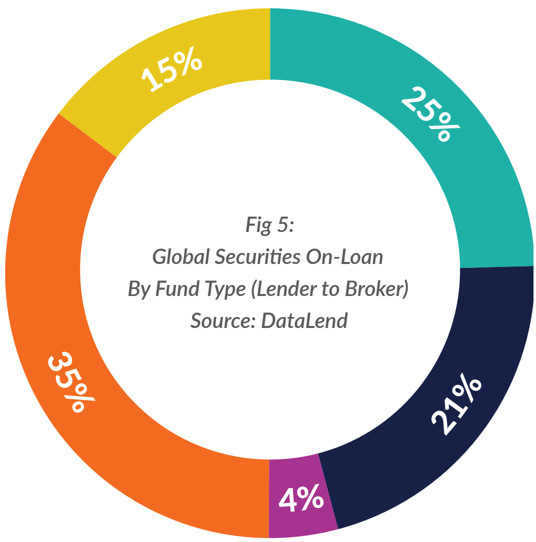


Fig 5:
Global Securities On-Loan
By Fund Type (Lender to Broker)
Source: DataLend

- *Pension Plans*
- *Government/Sovereign Entities*
- *Insurance Companies*
- *Collective Investment Vehicle*
- *Others*

As Europe continues to develop its ambitious plans around the Capital Markets Union, the provision of secondary market liquidity through the provision of securities lending participants will be a crucial factor in attracting retail investors, as Europe strives to reposition the way its thinks about the long-term financing of its capital markets.

Previously, we have highlighted the disparity between securities being made available for lending by collective investment vehicles including UCITS, and on-loan balances (i.e. securities out on-loan). The picture as at the end of December was typical of the profile that we have observed for several years now, with collective investment vehicles representing some 49% of all securities that are being made available for lending, but only making up some 35% of on-loan balances.

As Europe continues to develop its ambitious plans around the Capital Markets Union, the provision of secondary market liquidity by securities lending participants will be a crucial factor in attracting retail investors, as Europe strives to reposition the way its thinks about the long-term financing of its capital markets.

Conversely, the role that Sovereign Wealth Funds (SWFs) play in our markets is now also well understood. Where other groups have been constrained from actively participating in securities lending either through convention or regulations, SWFs have stepped into markets, notably fixed income. Their sheer scale and at times greater flexibility make them ideal counterparts for borrowers.

Finally, December 31 saw the transition phase to allow the UK to leave the European Union come to end, with the UK formally exiting the political and regulatory orbit that it has been a part of for over forty years. Our markets, together with most other financial service companies were well prepared ahead of the deadline. As we look forward into 2021 and beyond, it is likely that we will begin to see some regulatory and policy divergence between the UK and the EU, although too early to see what that may look like. One area that is already causing some debate is how UK-based investment firms will effectively service their European-based clients in the absence of any equivalence recognition from the EU for UK-based institutions. Current MiFID rules prevent direct sales activities to clients from companies outside of the EU 27. Whilst this may not directly impact our markets, we could see some realignment of supply and demand patterns for securities, as institutions have to potentially rethink their business models.

However, and notwithstanding those challenges, it is clear that much of the regulatory agenda in 2021 will be increasingly dominated by ESG and sustainable finance, as governments and politicians respond to the demands of their electorates to make climate change and the green agenda a priority in a post-pandemic era.

ETFs – the New(ish) Financing Paradigm: An Update for 2021

Andrew Jamieson
Managing Director, Global Head of ETF Product, Citi

When I was approached to write an update to the piece I wrote on ETFs three years' ago, I was intrigued to learn just how much had changed over the period and conversely understand what had remained the same. Whilst there is no doubting the incredible impact ETFs have had over the last decade, with AuM doubling over the last five years alone, they have always been peripheral within the confines of Securities Financing in Europe. Either in terms of lending to harness increased yield, borrowing to facilitate short coverage or indeed financing & collateral pledging to fulfil other obligations.

Three years ago I predicted that was about to change: that Europe would emulate the more mature US-market and ETFs were set to play a more mainstream role on the European stage, but was that correct? Sadly, the answer is not clear-cut - both yes & no would be a fair reflection. Therefore, we need to take a more granular look at what has changed for the positive, and where there is still work to do.

Growth Phenomena

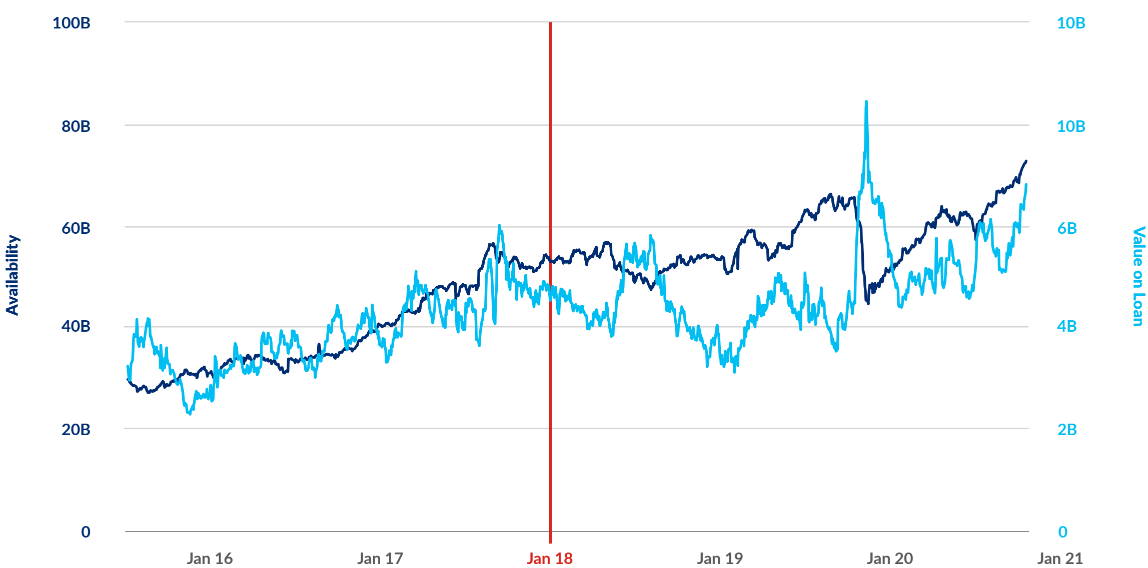
With global AuM over $7 trillion, and Europe comfortably smashing through the $1 trillion mark for the first time ($1.28 trillion by the end of 2020[1]) volumes have exploded. The London Stock Exchange is reporting a 50 per cent increase for 2020[2], demonstrating that ETFs are firmly becoming the Institutional vehicle of choice. Consequently, the traditionally dominant players in the securities lending marketplace (i.e. the largest Beneficial Owners) are unquestionably holding more and more of these products as ETF adoption continues apace.

But are we seeing that translate into increased lending volumes? In simple terms, yes as the table below (courtesy of IHS Markit) shows. In the last three years, we have witnessed an increase in visible availability in Europe of nearly 40% from just under $50 billion then to almost $70 billion now.

Similarly on loan balances, whilst more volatile, have increased from around $4 billion to over $5.2 billion (+30%) and peaked as high as $8.5 billion during the initial Covid 'fallout' illustrating the increasing adoption of ETFs as a macro hedging tool in addition to a core long holding.

[1]Source: Citi ETF Research
[2]Source: London Stock Exchange

Fig 6: Availability and Value on Loan *Source: IHS Markit*



> *there are now over 350 ETFs globally where the annualised average lending revenue outweighs the cost of the ETF management fee*

This compares favourably to last time, when progress was clearly more nascent. However many, if not all, of the previous impediments still remain – nomenclature challenges, multiple sedols (due to cross-listings), classification confusion (is it an equity, is it fixed income?) and perception inaccuracies (“nobody owns them” , “nobody wants them” , “they a retail product”) being just some of the most common. The industry can and needs to do more to tackle these, particularly as many of the regulatory challenges and distractions it has had to face over the last few years have largely receded. There surely cannot be too many other opportunities where supply and demand are growing in tandem by ‘at least 30%’ every three years? If the industry can continue to develop new markets and push into new territories such as Romania, one would hope it could similarly solve for the challenge of having ETFs with multiple sedols?

Fixed Income Adoption

Three years ago, the use of ETFs by Fixed Income investors was still a relatively new occurrence, they appreciated the benefits of going short as well as long, similar instruments, but were often told the market (to borrow) didn’t exist. Undeterred hedge funds, and even traditional asset managers, started using ETFs to tactically exploit segments of the market and borrow demand grew steadily. What changed however was the industry reached a tipping point in adoption and ETFs are now an indispensable vehicle for Fixed Income investors both large and small. In fact, through the aftermath of the recent Covid pandemic, it became evident that unlike every previous period of extreme market volatility, fixed income ETFs were no longer the target for criticism. This newfound and welcome credibility will be the catalyst for further growth in use without question.

Additionally the ongoing challenges in settling ETFs on a timely basis, (due to their multi-listed nature) - a particular sensitivity for overseas investors in regions such as Latin America or Asia, has improved greatly by the growing harmonisation of the ICSD model – where irrespective of listing, all ETFs settle in a centralised common depository (Euroclear or Clearstream). Who knew that a little-known piece of Irish legislation – The Migration of Participating Securities Act 2019 – would be a welcome catalyst for European ETF market harmonisation? In addition to improving settlement rates, it ought to drive down market-maker costs, increase risk appetite, and harmonize inventory pools - particularly important in helping grow secondary activities such as options on ETFs, which will in turn fuel further long-term demand. We have already witnessed this in the United States, where an active options market (in particular high-yield fixed income ETFs) has driven demand to nearly 100% utilisation in certain names and generated significant fee income. Interestingly, there are now over 350 ETFs globally where the annualised average lending revenue outweighs the cost of the ETF management fee – a substantial improvement from 2018 when there were 150 such products.[3]

Collateral – Now & Forward Looking

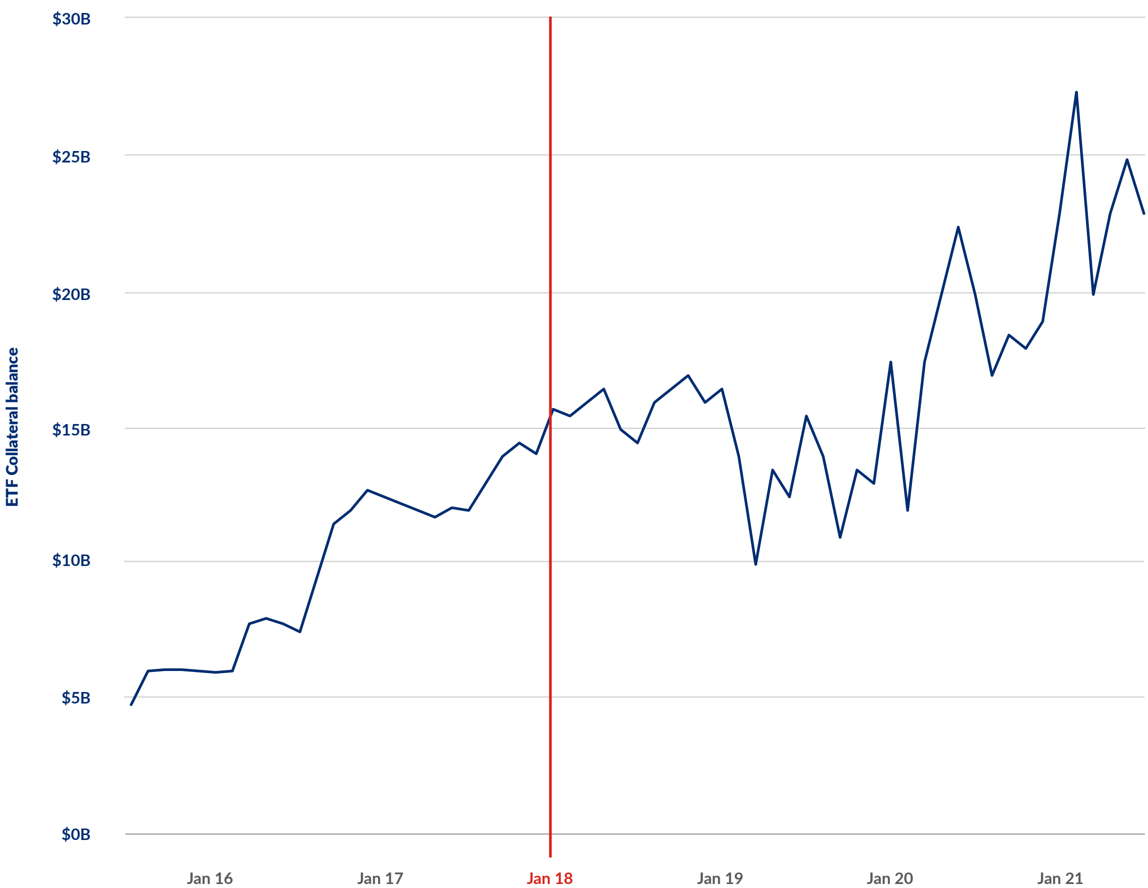
Perhaps now, much like three years ago, the collateral aspect of ETFs has and continues to see the most opportunity and advancement. The desire to pledge ETFs as collateral, particularly in relation to the evolving regulatory environment, is as strong as ever, and put simply, if more and more clients hold them (and in increasing quantities) the need for greater acceptance as a collateral instrument in their own right will only increase. Regulatory change in the form of MiFID II led to much greater transparency on true European ETF trading volumes, where OTC activity had traditionally accounted for upwards of 70% of daily turnover and was largely invisible.

[3]Source: IHS Markit

Greater transparency coupled with inherent in-built diversification makes ETFs an ideal collateral instrument regardless of some of the current hurdles in understanding. The development of industry standard metrics (i.e. , IHS Markit ETF Lists v#1) increased understanding and removed the traditional heavy lifting required in classifying the myriad of ETFs in existence. Consequently, the challenge of knowing which ones to accept and those to avoid in individual and bi-lateral negotiations was a significant step forward. This automated process of pre-approved criteria supported by the tri-party platforms greatly simplified the process and increased speed to market. However, one of the downsides of creating market standardisation was it also naturally limited scope and consequently the initial Lists (one equity, one fixed income) ran to less than 100 ETFs and only grew organically to around 120 in total due to the many inclusion constraints built-in.

However' as the chart below courtesy of BNY Mellon tri-party illustrates, the volumes of ETFs within their European platform is substantial and continues to grow in spite of the limited 'standardised' universe. Over the same three-year period from January 2018, ETF collateral balances have risen by a further 60%, with significant growth in the last 6 months on an ever-increasing trajectory.

Fig 7: BNY Mellon International Tri-Party ETF Balances *Source: BNY Mellon*



Although the initial Markit Lists created industry-wide harmonization for the first time, the very nature of that standardization, limited growth considerably. To satisfy demand for more securities and to allow for a degree of flexibility & customization, Markit are about to launch Lists v#2 which will radically increase the number of eligible ETFs.

Whilst continuing to support the first generation product, this new offering will have 'Overlap Scores' based on empirical analysis of holdings using the daily ETF Portfolio Composition Files – this in turn allows for a slight deviation away from the big brand indices and creates a much broader pool of inventory. Custom Lists allowing profiles to be specific to Collateral Receivers risk mandates and eligibility criteria will further broaden the universe, such that it is not inconceivable that a particular Lender's List in future may run into the thousands of ETFs rather than the low hundreds. This will undoubtedly have a significant positive affect when it comes to increased usage of ETFs as collateral.

Parallel Opportunities?

What the Markit ETF Lists unquestionably do, is bring clarity & classification to a product that the marketplace has historically found challenging. There is no evidence to suggest that the inability to bring ETFs into the mainstream was down to mistrust or lack of interest, rather the inability to cope with a product that did not adhere to the norms of the single security environment. What is interesting is how these recent advances in understanding, and more importantly tools to accommodate, could be relevant for another seismic change about to sweep the industry : ESG. There are huge parallels in the current explosion in interest in ESG products with ETFs. Both are irreversible trends that are set to dominate the investor landscape and have come to symbolise the rise of the millennial investor.

Therefore, the imminent requirement for the securities finance industry to adapt to increasing ESG constraints could benefit from a similar approach adopted by ETFs, particularly as the ETF industry is leading the way in ESG conversion and adoption.

More To Do

Now as in 2018, there is still much to do. What has become evident over the last couple of years is the continuing lack of 'ownership' within the securities finance industry itself. Rather it is being largely supported by a small band of enthusiasts who are more often than not peripherally involved through their involvement in the ETF industry.

I put myself firmly in this category by definition. Now is the time for industry practitioners to rise to the challenge, and to resource and prioritise this opportunity appropriately. This is particularly relevant when so many of the industry's heavyweights generate so much revenue from the product itself.

Illustrious names in securities finance such as State Street, Bank of New York, Brown Brothers Harriman, Northern Trust, BlackRock and J. P. Morgan - to name but half a dozen are also the top names in the ETF industry, either as issuers or custodians, and often both.

It cannot surely be too long before their clients and their colleagues become more vocal to the missed opportunities?

With global AuM forecast to hit $12 trillion in the next few year, ETF numbers on-loan or pledged as collateral are still modest at best. Many major lenders are still unable to unlock their full inventory, being unable to identify them in their custody system or overcome the multiple sedol challenge.

More often than not, misconceptions persist about the lack of appetite to borrow, and the consequent lack of prioritisation depletes availability feeds and dampens enthusiasm yet further. Unsurprisingly prime brokers have historically been uncomfortable indicating stable supply to hedge fund customers that in turn ultimately stifles potential demand, creating a vicious circle of inactivity.

Similarly, reliance on only on-exchange volume data, (which vastly under emphasises the true secondary market liquidity), results in a skewed impression, particularly in combination with traditional 'single stock' practices, such as average trading volume constraints that are inappropriate for open-ended funds.

Looking back to a previous example, at the end of January 2018, a leading UCITS FTSE100 ETF reported 1.6 million units traded on the London Stock Exchange[4], but a further 12.2 million recorded under MiFID II reporting, giving a true picture of 13.8 million shares that traded. Looking at the same ETF on 11 November 2020, the on-screen liquidity had grown to 22.1 million units, and the entire traded volume that day was an impressive 89.8 million units, or over 'half-a-billion sterling' in notional terms. Contrast this with a well-known stock such as HSBC, the third largest constituent in the FTSE100, which only traded 38 million shares that day, worth a total of £150 million in comparison.

This is a testament to how relevant and liquid ETFs have become and yet it is still not lent as 'GC' nor readily taken as collateral?

Notwithstanding these challenges and issues, demand and interest drives change and therefore, regardless of which side of the lending, borrowing or collateral pledging or receiving conundrum your firm sits on, being more vocal and 'owning' change is key to resolving these last hurdles and bringing ETFs fully into the mainstream for securities finance.

With the impending implementation of CSDR and the yet unknown implication for ETFs, there could be a very real upsurge in demand to prevent punitive penalty charges and buy-ins, resulting in further revenue growth for the industry and opportunities for clients.

Opportunities like these outside North America are growing swiftly for ETFs and in line with the wrapper itself and consequently now is the time to help build a more efficient lending market for ETFs and ensure significant new revenues are not missed. The challenge is on!

[4]Source: Bloomberg

Andrew Jamieson
Managing Director
Global Head of ETF Product
Citi

Andrew is a Managing Director and Global Head of ETF Product at Citi.

In his role he is responsible for leveraging Citi's global network across divisions and asset classes to align processes and outputs in all regions and work alongside underlying products and support functions to drive global excellence as it pertains to ETFs.

This includes the build-out of their Fixed Income and Currency Beta platform, the development of an ETF Custody and Fund Administration business, the enhancement of Citi's Issuer Swap platform, the evolution of Funding, Capital Treatment and Collateral framework for ETFs and all Legal, Technology and Operational advances.

Furthermore the role provides a key resource for the regional Sales and Distribution teams and he serves on Citi's global ETF Steering Committee.

Previously Andrew was Managing Director and Global Head of Broker-Dealer and Market-Maker Relationships for BlackRock's iShares ETF business and is a regular contributor to both print and digital media for leading global publications and speaker at industry conferences and events.

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Global Government Bond Markets in Focus

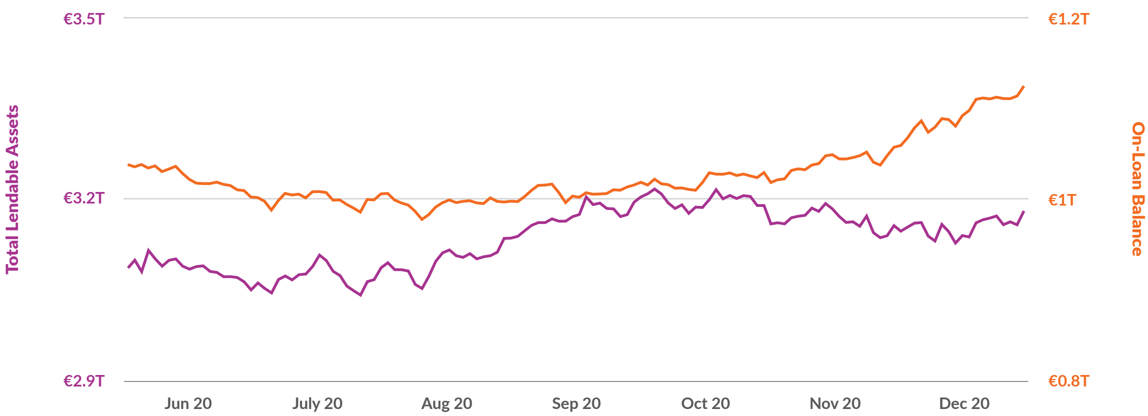
In the second half of 2020, government bonds being made available for lending initially stagnated at around the €3 trillion level for the first three months. Available balances then increased to just over €3.2 trillion, only to fall away into the year-end, closing at just over €3.1 trillion on 31 December

As we look at how markets have reacted to the pandemic, any analysis of the government bond markets needs to be done within the context of the significant interventions from governments and national central banks, both in the form of new issuance by the former to fund their various support packages, as well as quantitative easing by the latter. A low interest rate environment will also change behavior and outcomes, as reduced yields will restrict cash collateral opportunities and possibly drive participants to look at other sources of liquidity such as the unsecured markets.

These often conflicting macroeconomic levers can make it difficult to draw concrete conclusions for securities financing markets, but their impacts will drive government bond lending more than any other asset class.

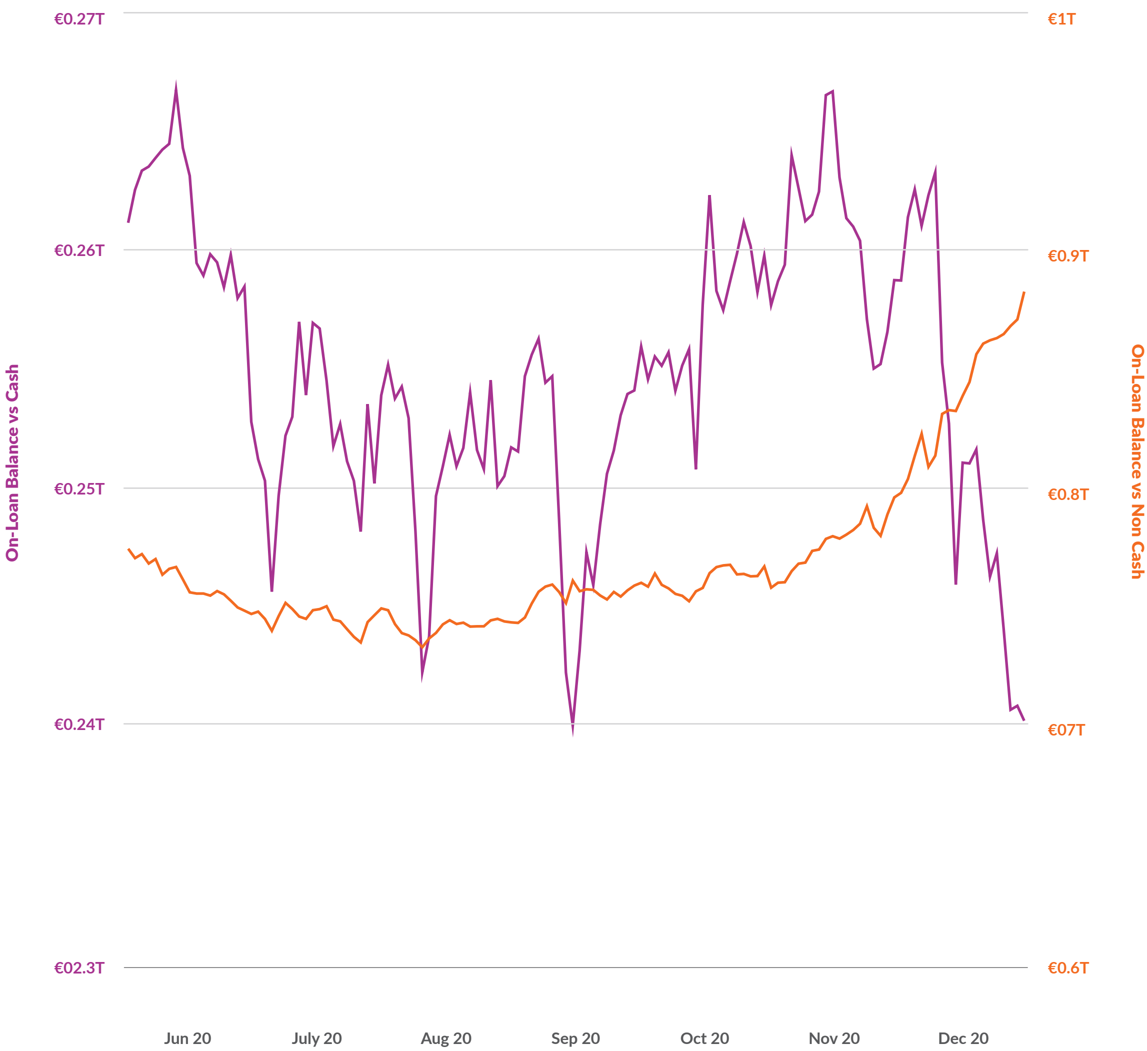
In the second half of 2020, government bonds being made available for lending initially stagnated at around the €3 trillion level for the first three months. Available balances then increased to just over €3.2 trillion, only to fall away into the year-end, closing at just over €3.1 trillion on 31 December.

Fig 8: Global Securities Lending Government Bond Market *Source: IHS Markit*



Utilisation, as measured using the value of securities on-loan, steadily increased over the period, rising from €1 trillion to over €1.1 trillion at the year-end. However, behind what appears to have been a broadly strengthening on-loan position (especially into the year-end), there were clearly several factors in play behind these numbers. The following chart that looks at the split between cash and non-cash collateral highlights how balances against non-cash collateral strengthened into the year-end, whilst those loans that were secured against cash collateral fell away steeply in the final few days of the year.

Fig 9: Global Securities Lending Government Bond Market (Cash vs Non-Cash) *Source: IHS Markit*



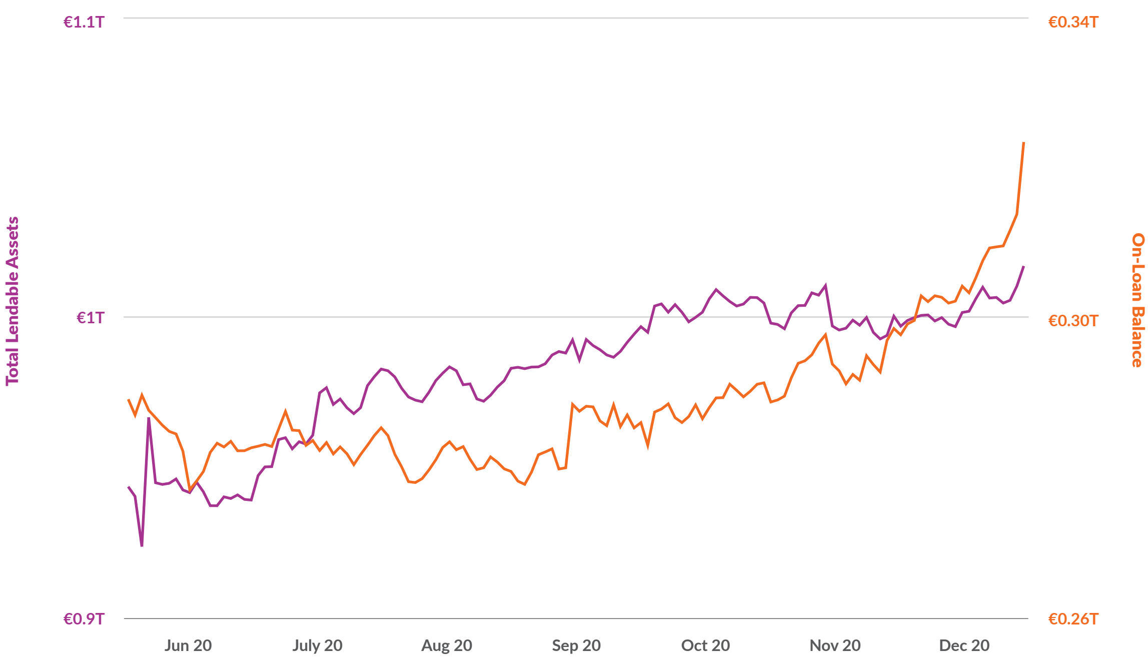
We have explored some of the reasons behind these types of trading patterns before. Over the past two to three years, much of the demand to borrow high quality government bonds or High-Quality Liquid Assets (HQLA), has been driven by borrowers' desire to secure HQLA for extended periods. If a prudentially regulated entity is able to borrow an eligible HQLA asset for periods of three months or more, they can include these assets in the calculation of their Liquidity Coverage Ratio (LCR), which requires banks to hold sufficient HQLA to provide a robust liquidity cushion for the organisation during periods of market stress. Much of that demand has manifested itself through the securities lending markets, where lenders who are able to forgo access to their government bonds for three months or more, have been able to generate incremental lending fees. Typically, these regulatory driven trades have also been secured against other securities (non-cash collateral), which has the effect of temporarily removing high risk-weighted assets (RWA) from the balance sheet of the borrower. Consequently, it is not surprising that borrowers prioritise these regulatory-driven non-cash trades over the end of year reporting date.

Another factor that would have contributed to the reported 10% fall in cash collateralised business in the final two weeks of the year, would have been the underlying short-term cash markets. As banks and other institutions look to shrink their balance sheets over the year-end, the market for short term cash investments can almost disappear. Therefore, many lenders who are in receipt of cash collateral prefer to recall the associated loan positions, and effectively return the cash to the borrower (as they don't want to assume the reinvestment risk during this time).

Both of these factors appear to have played an important role during the final few months of 2020, and portray a more normal market environment compared with the first six months of the year, when some of these expected flows were either not seen or were reversed.

In Europe, we saw a similar picture with both European government bonds being made available for lending and on-loan balances, with an upward trend throughout the second half of the year.

Fig 10: European Securities Lending Government Bond Market *Source: IHS Markit*



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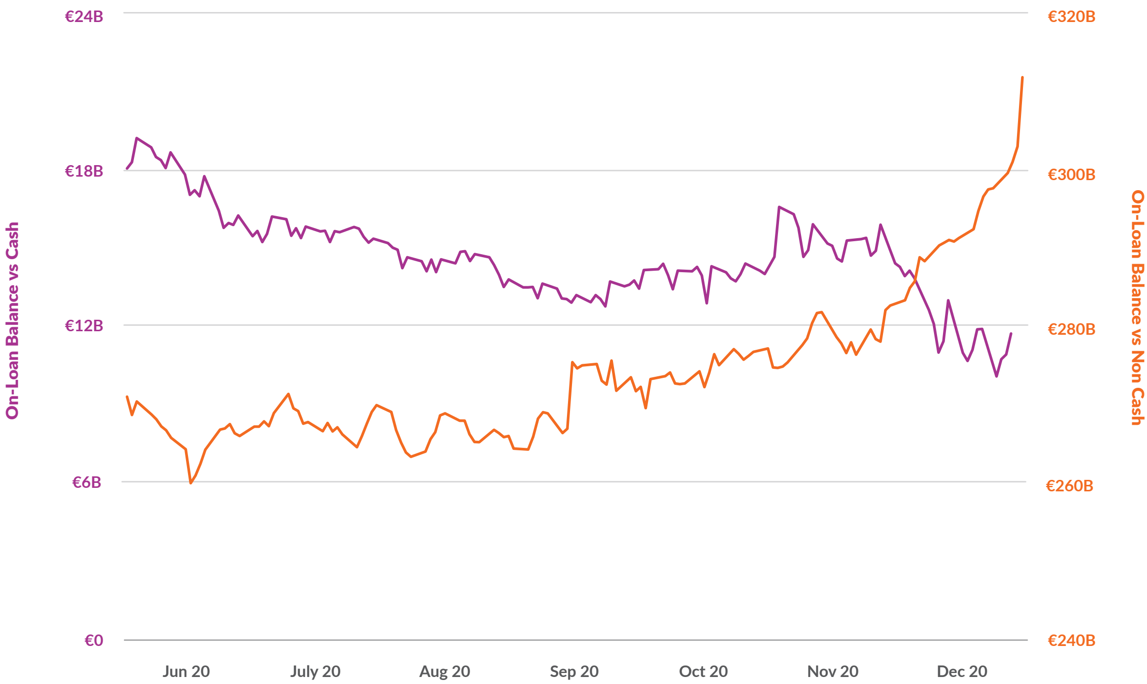
Again, if we delve further into the trading patterns in Europe and look at the distribution of trading activity between cash and non-cash collateral, we see if anything a more pronounced pattern that we observed at the global level.

Fig 11: European Government Bond Market (Cash vs Non-Cash) *Source: IHS Markit*



Another factor in play was likely to be associated with the recovering equity markets in the latter part of the year.

As borrowers saw the value of their equity inventory recover dramatically in the second half of the year, this would allowed them to opt for a higher proportion of non-cash business but the sudden fall in cash collateral business into the year end is most likely to be associated with the lack of reinvestment yields and a desire to prioritise regulatory driven business.

As the demand to access HQLA is likely to grow over the coming months especially as we head towards the implementation the final phases of the Uncleared Margin Rules (UMR) for derivatives later this year and in to 2022 it is important to understand what this might mean for our markets. As the following charts highlight as at the 31st December, we saw that three big investor groups namely pension funds, SWF and mutual/retail funds controlled circa 80% of available supply across this asset class.

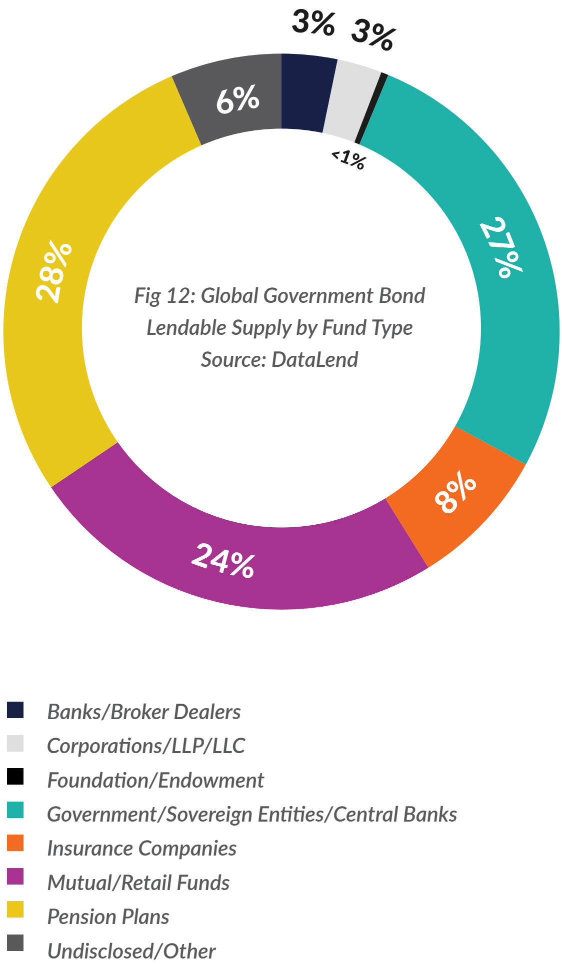


Fig 12: Global Government Bond Lendable Supply by Fund Type
Source: DataLend

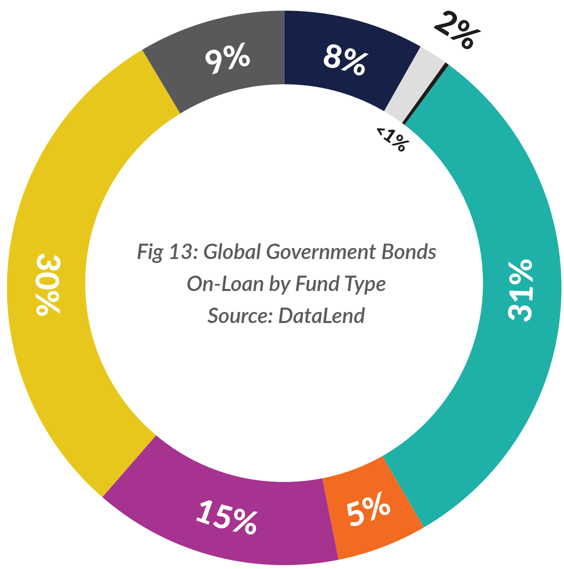


Fig 13: Global Government Bonds On-Loan by Fund Type
Source: DataLend

We have in the past highlighted the importance of the SWF sector to this market, however pension funds and retail funds still account for 28% and 24% respectively of all available supply.

As these institutions, who have traditionally made their government bonds available for lending think about their UMR obligations, we may see these firms reprioritise their use away from lending, thereby reducing overall availability.

This could have implications over time for overall market liquidity and pricing.

This potential sensitivity is underlined when we look at current on-loan balances, where pension plans make up circa 30% of all open loans as at 31 December. Conversely, retail funds including UCITS are typically underweight in terms of on-loan balances, with their proportion of active trades at 15% compared to their 24% of available inventory. Continued regulatory restrictions around UCITS in particular, have led borrowers to opt to borrow government bonds from both SWFs and pension funds, where they see more flexibility around factors such as collateral requirements and the provision of term transactions particularly around LCR driven trades.

Securities Lending and Repo – the "front line workers" of financial services

Maurice Leo, in Deutsche Bank's Agency Securities Lending team, assesses the important role of securities lending and repo in accommodating and facilitating market order and liquidity during pandemic-related volatility

In just under twelve months, we have experienced a widespread reassessment of priorities and behaviours. We now measure our employment commute in metres not miles, parents reluctantly became tutors, children – often willingly in an act of reprisal - became hairdressers, bankers became bakers and many households welcomed pandemic puppies – who also became the disposal outlet for some of the less successful baking endeavours!

In the Securities Finance industry, there was also a re-stacking of priorities and approaches. This traces back to the primary motivation influencing institutional investors to participate in securities lending and repo markets.

In our experience, the primary motivation to engage in securities lending and repo differs across institutional investors but is summarised in the following trinity:

Orderly Market Motivation:

In addition to the execution of monetary policy, Central Banks have long recognised the invaluable role of securities lending in the orderly functioning of bond and repo markets. Orderly markets stimulate financing through capital markets as opposed to bank balance sheet led solutions that have been more customary in Europe.

Securities lending also underpins reduced trading costs due to improved transaction settlement rates and narrower bid/ask spreads.

This benefits the widest outreaches of the market including those investors that remain opposed to the practice of securities lending.

Liquidity Motivation:

The Liquidity Motivation tends to be a determining criterion for Asset Owners such as pension funds or sovereign investors.

It enables investors to recalibrate their lending programme to become 1) a source of cash or 2) a mechanism for collateral transformation in order to meet margin requirements arising from their core portfolio management activity.

This motivation was epitomised by the formal establishment of the Global Peer Financing Association in mid-2020, an organisation that now encompasses 11 global members with >USD6 trillion in AuM.

Revenue Motivation:

Historically the most visible incentive for institutional investors to participate in securities lending has been the revenue motivation – capturing the value embedded in otherwise dormant assets for the benefit of end investors/clients. Best illustrated by the fact that, in normal times, as an industry, we have a tendency to measure our success against the revenue indicators published by various independent data vendors.

In 2020, we witnessed a rebalancing of investor motivations as liquidity moved centre stage with all the panache of a former Mayor of London playing street rugby with primary school children in Tokyo.
This article examines the coalition of liquidity, securities lending and repo in 2020 from a beneficial owner standpoint.

Liquidity – a multilateral influencer.

As markets increasingly realised that Covid-19 was an international and not a regional public health event, we experienced a dramatic migration away from risk assets in February 2020. Global equity indices tumbled during the last week in February, with the S&P 500 and the STOXX 600 experiencing their largest weekly declines since October 2008. In March, the S&P 500 was down -12.4% on a total return basis, a "modest" decline relative to Southern European equities as Italy's FTSE MIB and Spain's IBEX 35 were both down >22%. The Hang Seng was amongst the best performing indices with a 9.5% decline in March. In a year of the extraordinary, April then became the best month for the S&P 500 (up 12.5%) since January 1987. Yet we were in a period where the world economy practically ground to a standstill. Try explaining that to a new graduate. The aforementioned volatility triggered an initial squeeze on liquidity. Throughout the market, we saw institutional clients become nervous about their liquidity profiles with redemptions and margin requirements the overarching considerations in H1 2020.

In the **regulated fund sector**, European and US domiciled fixed income funds experienced the largest investor outflows in Q1 at -€80bn and -€135bn respectively, although these amounted to ≈2% of total product AuM. These trends reversed in Q2 with European fixed income products securing €71bn and US offerings gathering €194bn in net sales. In Europe, the absence of any disruption to investor redemptions owing to securities lending activity appeared to vindicate ESMA's decision to introduce collateral diversification and term restrictions for UCITS lenders post the 2008 global financial crisis.

In November 2020[1], ESMA highlighted that redemption demands in a deteriorating liquidity environment were particularly challenging for EU investment funds that had invested in less liquid assets, such as corporate HY bonds and EM bonds. These observations amplify the strategic importance of ensuring continuity of securities lending supply as a liquidity reservoir for in scope securities as the effective date of the Settlement Discipline Regime within CSDR approaches.

In the same report, ESMA noted that EU Money Market Funds (MMFs) were particularly affected due to heightened redemptions on the liability side, as part of the 'dash for cash', while on the asset side the liquidity of commercial paper markets deteriorated quickly. Often utilised within securities lending programmes for the (re)investment of cash collateral, ESMA indicated that there will be further focus on MMFs within its 2021 Work Programme[2].

ESMA did note that whilst there were a small number of cases requiring UCITS / AIFs to implement Liquidity Management Tools (LMTs), these arose from valuation concerns in fast moving and one-sided markets. There was no association between LMT adoption and participation by the underlying funds in securities lending as was the case in certain fund complexes in 2008.

Insurers are an important liquidity demographic in securities lending and repo markets, particularly the HQLA lending sector given their sovereign debt bias and portfolio features. Participation by this beneficial owner constituency was amongst the most disrupted during 2020 as insurers took defensive measures to safeguard access to liquidity against fears that the pandemic would prompt a surge in claims and a sharp rise in their cash requirements. By early Q3, most of these clients had become more comfortable with their liquidity positioning, given the beneficial impact of Central Bank interventions in the intervening period, and had resumed securities lending activity after a brief hiatus.

For **sovereign investors**, particularly those with commodity-orientated economies, the experience of the global financial crisis coupled with more cautious end-of-cycle positioning left them with portfolios capable of contending with the government withdrawals that emerged in Q2 to support immediate deficits in public finances.

In the three weeks to March 25th there were record volumes (USD100bn) of sales by Foreign and International Monetary Authority (FIMA) holders of Treasuries. This coupled with the flight to quality and the associated demand for US dollars contributed to a surge in volatility in March to levels not seen since 2008. The Fed responded

[1] ESMA recommendation of the European Systemic Risk Board (ESRB) on liquidity risk in investment funds

[2] ESMA 2021 Work Programme

Eurosystem securities lending facilities serve as an effective backstop, supporting bond and repo market liquidity without unduly curtailing normal repo market activity.

Source: ECB

by implementing the FIMA Repo facility enabling qualifying institutions to temporarily exchange their US Treasury securities held with the Fed for US dollars, commenting that "this facility should help support the smooth functioning of the US Treasury market by providing an alternative temporary source of US dollars other than sales of securities in the open market[3]".

There was evidence of significant portfolio rebalancing by sovereign investors as they responded to the impact of market volatility in equity and fixed income markets in H1 2020. This valuation volatility initially meant that they found themselves overweight their permitted fixed income allocations and underweight in terms of their target equity benchmark allocation. Investors elected to shorten the tenor of fixed income lending to ensure there was availability to meet the portfolio liquidations required to re-establish equilibrium versus their target allocations. With the improvement in equity valuations from Q2 onwards there was a subsequent reversal of the earlier rebalancing as funds sought to reduce the excess allocation to this asset class relative to their strategic benchmarks. Whilst the short-term liquidity required to support such rebalancing has some adverse impact on the ability of securities lending programmes to capture the term premium associated with portfolio stability, the industry readily accommodated the core rebalancing activity during the above period.

Central Banks were probably the busiest market protagonists in 2020. The measures they implemented to mitigate the negative economic effects of the pandemic were on a scale and timeline without precedent. Underpinning a number of these programmes were the principles of liquidity and systemic order. This was the case with the FIMA Repo facility previously mentioned.

In the Eurozone, the ECB unveiled a series of monetary policy responses in March including an increase in the existing APP[4], the establishment of the €750bn Pandemic Emergency Purchase Programme (PEPP) and the initiation of purchases of Greek sovereign debt under this facility[5]. These facilities are designed restore the orderly functioning of euro area financial markets, following the extraordinary volatility, fast de-risking and thin liquidity conditions during March as well as to ensure that accommodative monetary policy continued to be transmitted to all parts of the single currency area.

Importantly the ECB extended the securities lending framework that supplements the operations of longer standing APP facilities, to include the newly initiated PEPP. This ensures that the Eurosystem securities lending facilities continue to serve as an effective backstop, supporting bond and repo market liquidity without unduly curtailing normal repo market activity[6].

The PEPP was additionally recalibrated during 2020 to a current aggregate facility of €1.85tn with net purchases being undertaken until at least March 2022[7].

In November, the Eurosystem further adjusted the pricing principles on the APP, PSPP and PEPP facilities to reflect the changes in euro area repo market conditions since December 2016 and to ensure the continued effectiveness of the Eurosystem securities lending facilities. [6] Indeed, the beneficial influence of these adjustments was acknowledged by the ICMA European Repo and Collateral Council in its analysis on the performance of the European repo market at year-end 2020[8].

As a precautionary backstop to address pandemic-related euro liquidity needs outside euro area, the ECB also implemented the Eurosystem repo facility for central banks (EUREP) in June 2020[9]. This enables non-euro area central

[3]Federal Reserve announces establishment of a temporary FIMA Repo Facility to help support the smooth functioning of financial markets
[4]European Central Bank monetary policy decisions (March 2020)
[5]European Central Bank announces €750 billion Pandemic Emergency Purchase Programme (PEPP)
[6]European Central Bank: Securities lending of holdings under the asset purchase programme (APP) and pandemic emergency purchase programme (PEPP)
[7]European Central Bank monetary policy decisions (December 2020)
[8]ICMA: The European repo market at 2020 year-end
[9]European Central Bank: New Eurosystem repo facility to provide euro liquidity to non-euro area central banks

banks to borrow euro liquidity against eligible collateral and has been subscribed to by six institutions with >€10bn in approved lines to date. During periods of heightened disruption to Euro liquidity, we may expect to witness short-term displacement of eligible collateral from third party securities lending programmes into this facility if the underlying members are required to provide liquidity support their local banking sector.

Pension Funds are a key beneficial owner constituency for our industry given their traditional Government bond allocation, liability characteristics, regulatory profile and stable record of participation through market cycles. Illustrating this is the fact that they command over a quarter of total industry lendables and a third of outstanding loan balances. Liquidity is a cornerstone of pension fund operations. The volatility in market valuations during March and April translated into a dramatic increase in the requirement to access cash to meet the margin calls on the derivatives overlay and foreign-exchange hedges that are integral to the functioning of pension funds. As one of Europe's largest pension funds stated in a recent roundtable, in 2020 "for the first time I've put on a financing trade so that I'm taking in cash collateral for one of my funds who is looking for funding. Incremental income is important, but being able to help your clients when they need funding or hedging, is even more important than giving them some incremental income."

During March and April, there was ansiderable increase in volume and depth of inquiries around how to harness cash collateral raised within securities lending programmes to meet the demand for margin calls in unrelated products – a solution we refer to as "Agency Repo".

In response to the heightened volatility experienced in 2020, Pension funds have increased their cash buffers, and notably across different currencies, to ensure they have ready access to liquidity and to avoid being forced sellers in strained equity or private markets in particular.

In conjunction with these adjustments to portfolio liquidity, pension funds have been formally evaluating agency repo solutions where they use the established legal, trading, risk and operations infrastructure of a securities lending agent to gain access to secured funding markets. This can be in conjunction with their proprietary repo operations or on a fully outsourced basis. Agency repo solutions can be reinforced with balance sheet backed commitments to immunise against potential liquidity disruption caused by reduced bank intermediation in repo markets over key accounting dates or other periods of heightened market stress.

Since the 2008 global financial crisis, we have witnessed a series of lesser volatility events that nonetheless focused minds on the associated liquidity and funding challenges. Examples include the European Debt Crisis, Brexit referendum, equity sell off 5th February 2018 and now covid-19. Updates in regulation as well as monetary and fiscal policy intervention have been successful in addressing the liquidity challenges presented by each of these events. However, institutional investors remain conscious that future catalysts for market volatility – originating from populism movements, geopolitical tensions, environmental events or cybersecurity threats – will emerge with increased frequency and perhaps greater impact than those we have witnessed during the first two decades of this century. The events of 2020 illustrate that securities lending and repo are key workers in accommodating and facilitating market order and liquidity in response to such challenges.

Maurice Leo
Director
Agency Securities Lending
Deutsche Bank

Maurice is a member of the Agency Securities Lending business origination and relationship management team for the EMEA region. He has twenty years' experience in relationship management, origination and product development remits at custodian and non-custodian lending providers. He has extensive experience in structuring securities lending and financing solutions for Asset Managers, Central Banks, Pension Funds, Insurance companies and Sovereign Wealth Funds.

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Global Equity Markets in Focus

The second half of 2020 saw global equity markets follow a path of broadly sustained growth, as they recovered from the lows seen in the first half of the year. As further waves of the pandemic swept across the world however, markets reacted violently at times. Consequently, although most global indices closed 2020 up on the year, it was at times something of a roller coaster ride.

Inevitably, many of these global themes were played out in the equity securities lending markets, as borrowers and lenders reacted to the changing sentiments of their underlying clients. Equity securities being made available for lending rose by some 20% during the half-year, rising from €14 trillion on 30 June to just under €17 trillion at the year-end. As discussed earlier in this report however, key equity indices themselves rose significantly during this period. Consequently, most if not all of this increase was most likely directly related to asset price appreciation, rather than new assets being made available for lending.

Fig 14: Global Securities Lending Equity Market *Source: IHS Markit*

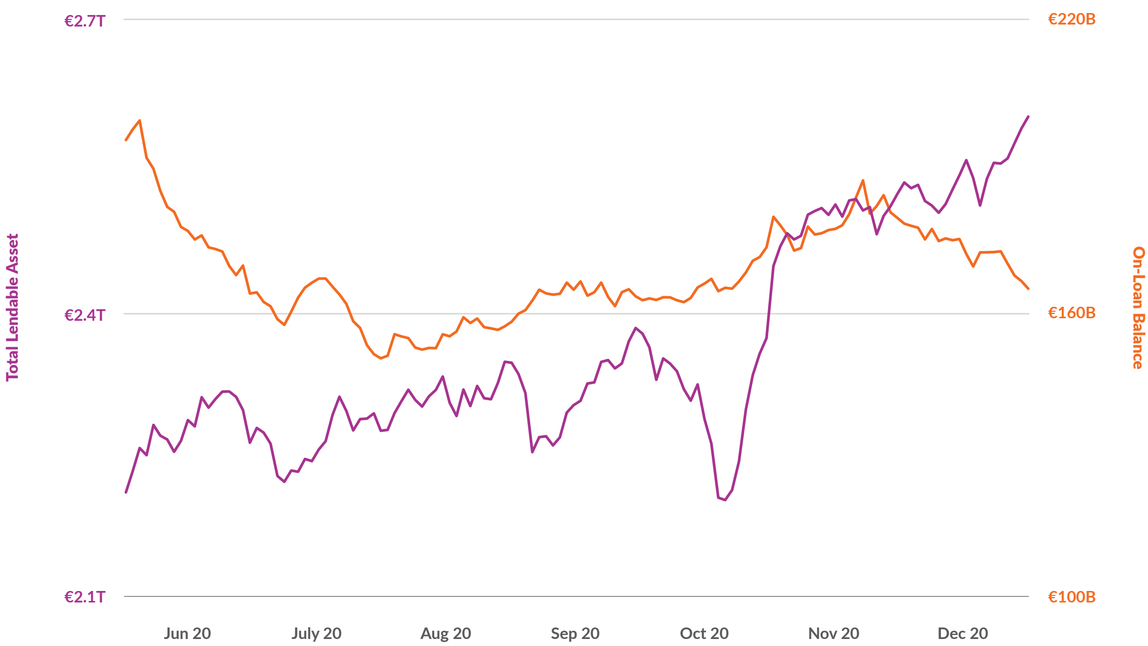
Whilst the pattern of data relating to the availability of equities for securities lending clearly reflects actual market events, the pattern of on-loan balances appears more complex. Review of the S&P 500 index highlights how markets rebounded strongly from a half-year low point in the final week of June, to rally strongly up until early September. In contrast during that same period, we saw the value of equity securities on-loan broadly fall.

The reasons behind this trend are likely to be varied but are most likely associated with rising stock markets forcing short sellers to close out positions. As the rest of the year unfolded, we also saw on-loan balances build again into the final quarter, only for the market to then suffer from further volatility associated with new outbreaks of the virus and related lockdowns.

Earlier in this review we considered the events in November, when the announcement of the approval of a COVID-19 vaccine prompted one of the largest momentum changes ever seen in investment markets, sparking considerable losses within the quant-based alternative investment management sector. More broadly, the final quarter saw wider demand to borrow equities, particularly in North America where a rush of Initial Public Offerings prompted an increased demand to borrow securities as traders positioned themselves around these issues.

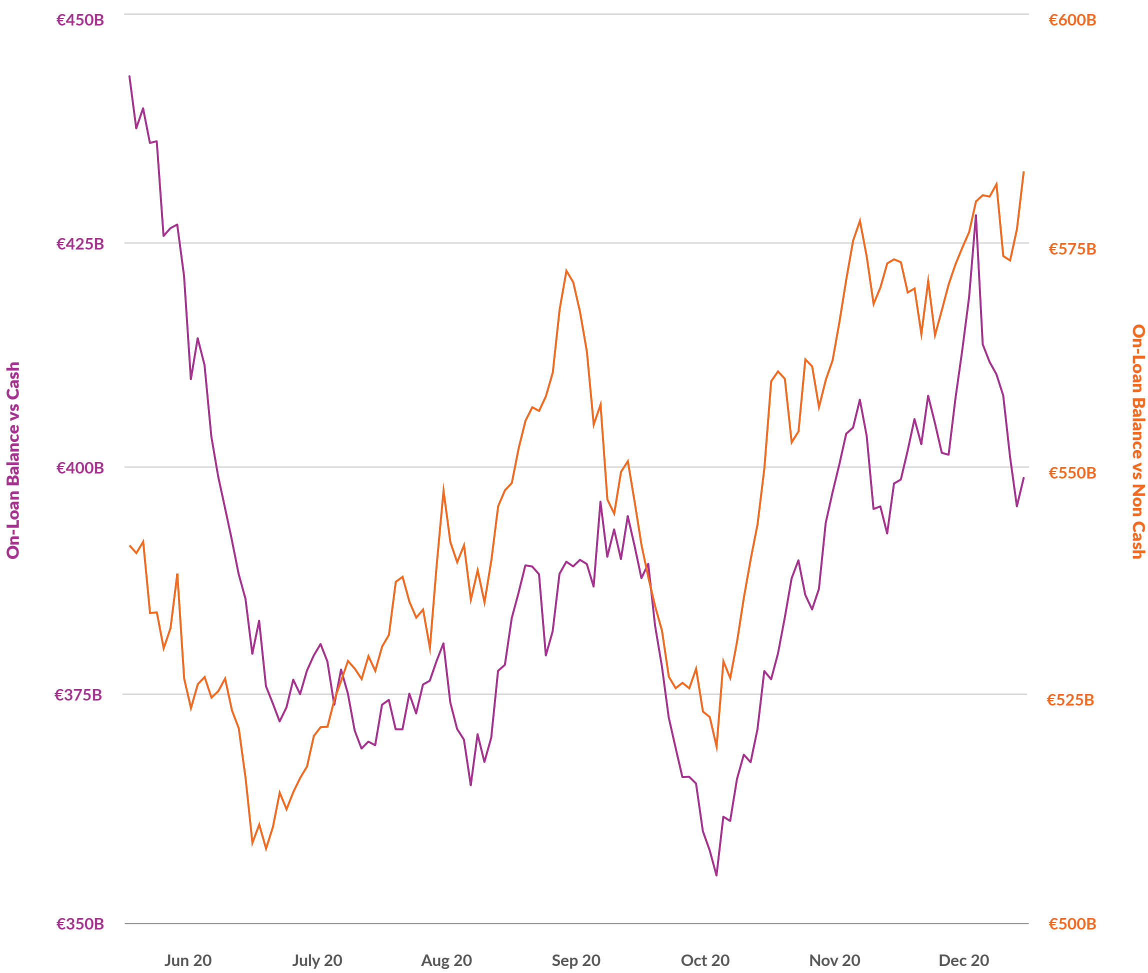
In Europe we saw less of the trading volatility seen primarily in North America, with on-loan balances falling into the year-end to close at €163 billion, compared to €195 billion six months earlier.

Fig 15: European Securities Lending Equity Market *Source: IHS Markit*



We saw some specific borrowing around securities associated with either pandemic-sensitive names in areas such as the travel industry, or companies that may have been exposed to the details associated with the final trade deal between the EU and the UK owing to Brexit.

Fig 16: Global Securities Lending Equity Market (on-loan cash vs non-cash) *Source: IHS Markit*



More broadly, the final quarter saw wider demand to borrow equities, particularly in North America where a rush of Initial Public Offerings prompted an increased demand to borrow securities, as traders positioned themselves around these issues.

From a collateral perspective, the equity market is traditionally one that is split 60/40 between non-cash and cash collateral transactions. The second half of the year tends to conform to those parameters, but it is interesting to note that as balances rose, particularly into the September quarter-end, all incremental business would appear to have been against non-cash collateral. Again, the reasons behind this pattern of data may be mixed, but as borrowers saw the value of their own equity inventory positions increase, they were able to use more of them as collateral. Also, as we have outlined before, lenders may be reluctant to receive cash collateral over key reporting dates, as short-term investment opportunities are likely to be constrained or even destroy value if the reinvestment is in a currency where short rates are either at zero or negative.

In contrast to the volatility seen in respect of non-cash collateral, cash collateral remained constant over the period. Amid limited reinvestment opportunities as global interest rates have remained at historically low levels, we might have expected a greater drift away from the use of cash collateral. However, many funds notably in the US are not able to accept non-cash collateral at this time. Consequently, the circa 40% of all collateral that is in the form of cash should be seen as something of a regulatory-driven resistance point, rather than necessarily the most efficient form of collateral that borrowers could offer to lenders.

In closing this review of equity markets and notwithstanding that the issues around GameStop have all occurred in early 2021, these are potentially fundamental shifts in the way markets work that cannot be ignored.

There has already been considerable debate in the media about the specifics of the GameStop situation that will play out over time. What is important here is not perhaps how a poorly performing company in an obsolete market segment has been transformed from a stock market perspective, but how that has happened outside of the normal channels that we are all familiar and comfortable with. We have seen many times in the past how long-only investors have countered short-side participants by buying the underlying stock.

What is different here is where that buy-side momentum has come from, and how the inherent power that technology through the internet has enabled retail investors to disintermediate the traditional investment management conduits and engage in markets directly. This is worrying for regulators, who instead of being faced with heavily regulated entities at each point in the value chain, are suddenly faced with almost a populist movement. This is very new territory for everyone involved, and now that the genie is out of that particular bottle, it is unlikely to be the last time we will be talking about direct action of retail investors.

The Future of Securities Services

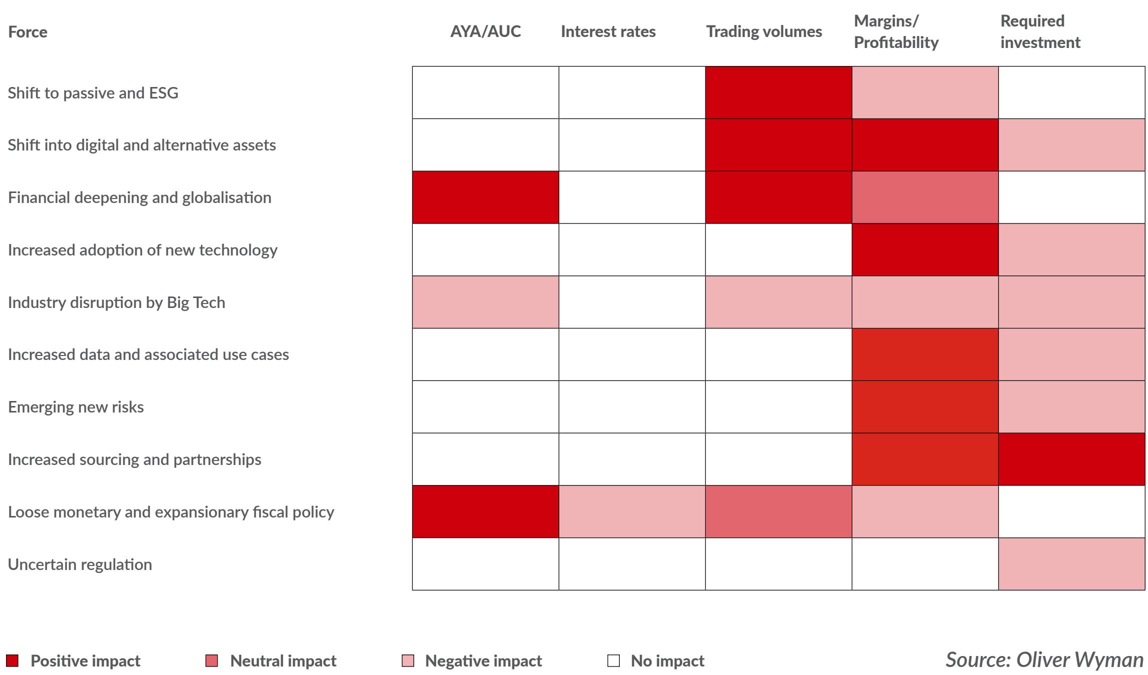
Colin Parry
Chief Executive Officer, ISSA

William Hodash
Managing Director, Enterprise Data Management, DTCC

The Securities Services industry has generated relatively stable revenues driven by accumulation of Assets under Custody (AUC) or Administration (AUA) and underlying trading volumes, even during substantial market swings witnessed over the last decade. However, the last cycle has also seen continued fee compression and decreasing net interest margins at the core of the industry. Even the introduction of value-adding adjacent services has not sustainably offset fee pressure on core business models, since new services have typically been included in existing service offerings and have thus become subject to the same pricing challenges.

Looking forward, our analysis suggests that developments in the broader Capital Markets ecosystem will create continued top-line pressure for the Securities Services industry as we know it, which will make it difficult for some players to fund required investments and fend off the threat of potential disruption. For firms that can afford the required investment, there is a significant future growth opportunity arising from the servicing of new (digital) asset classes and leveraging of new technologies within Capital Markets, with higher margin for associated products and services.

Exhibit 1: Impact of Capital Markets ecosystem trends on key drivers for the Securities Services industry from the ISSA Working Group analysis



Source: Oliver Wyman

On top of that, global geopolitical uncertainties increase the risk that the global Securities Services industry becomes regionally fractured. This might disadvantage firms that consequentially need to scale back their global business models. As a counterpoint, the firms that manage to retain global business models or which have a deep regional franchise in growing markets, may be able to increase their business.

With the knowledge that the Securities Services industry — as we know it — will undergo significant change over the next decade, but given the uncertainty of when and how this change will happen, we have taken a scenario-based approach to identify the drivers of change that are expected to have the largest impact on the industry.

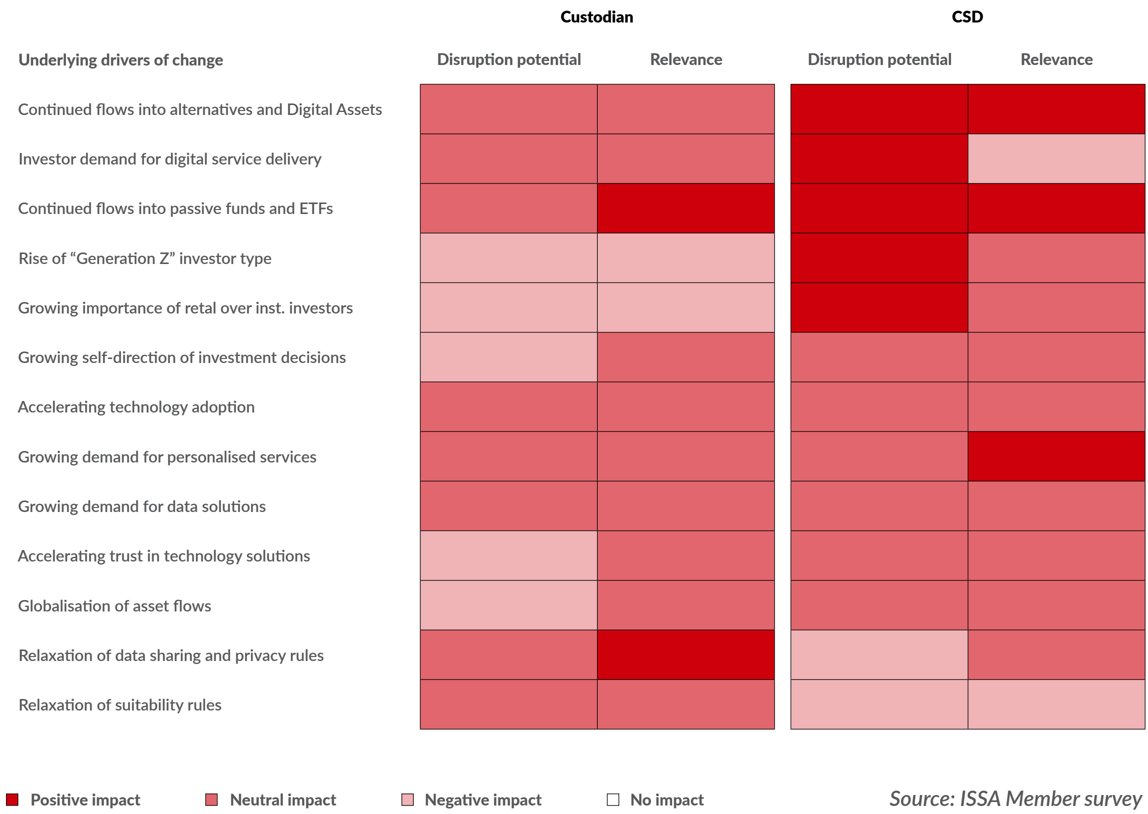
The analysis of the working group, supplemented by research from Oliver Wyman and a survey of ISSA member institutions, all conducted for the report, identified ten important trends in Capital Markets and concludes that changes in investor behaviour, as well as changes in technology and technology-enabled competition, are likely to have the biggest impact on the industry:

Investor behaviour: A continuation of flows into alternative and digital assets, as well as further shifts towards passive/ETF structures combined with further globalisation of the asset flows and higher investor digital service expectations.

Exhibit 2: Change in investor behaviour theme*

Average ratings of disruption potential and relevance for the industry from the perspective of Custodians and CSDs

** Includes the following relevant forces from Section 3: increased adoption of new technology, financial deepening and globalisation, shift into digital and alternative assets and shifat to passive and ESG.*



Source: ISSA Member survey

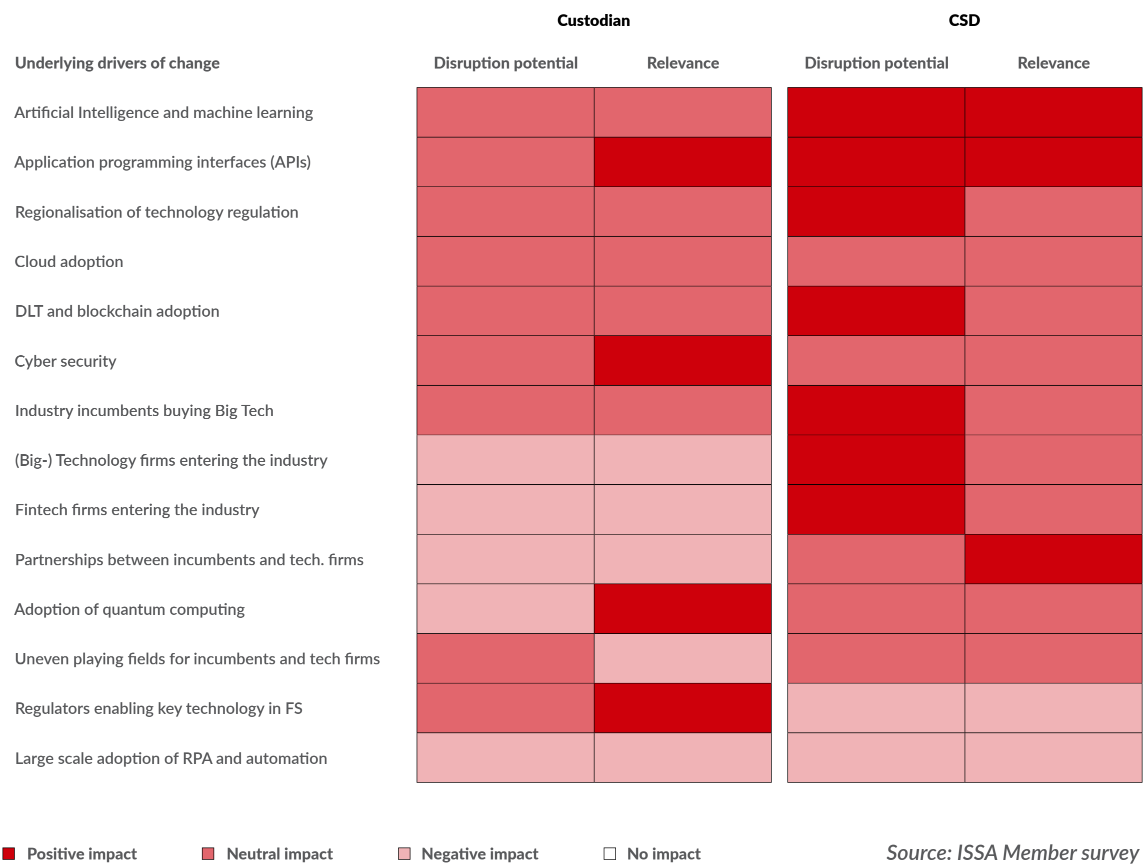
Technology and technology-enabled competition: Larger-scale adoption of Artificial Intelligence/Machine Learning/DLT, new business models based on new technologies, as well as new entrants to the industry from the technology sector.

Depending on the business model, scale and geographic footprint, four strategic considerations will be critical for players in the Securities Services industry:

Cost pressure to the core: Counter continued pressure on top-line revenues by placing additional focus on strategic cost reduction, doubling down on cloud-enabled modular fintech ecosystems to achieve higher levels of efficiency, forcing higher levels of service standardisation across clients, and pursuing strategic participation choices and industry consolidation.

Exhibit 3: Change in technology and technology-enabled competition

Average ratings of disruption potential and relevance for the industry from the perspective of Custodians and CSDs



Source: ISSA Member survey

New growth paths: Develop and ize new revenue opportunities by investing in new products and services, possibly built on data and Artificial Intelligence, recalibrating distribution channels and service offerings to reflect the increasing importance of buy-side clients and transforming underlying legacy IT infrastructure to increase flexibility for future innovation.

Industry disruption: Rethink positioning along the current post-trade value chain to ensure preparedness for potential industry disruption, potentially by filling capability gaps with partnerships and acquisitions, and reviewing insourcing and outsourcing decisions.

COVID-19 early lessons learned: Embed lessons learned from operating our businesses during the COVID-19 pandemic into future operating models by reviewing and rethinking existing (digital) transformation programs across the full value chain of activities, critically reviewing costly and manually intensive but non value-adding activities, and adopting new ways of remote and resilient working into Business as Usual (BAU) capabilities. Considering the findings of this report, potential areas for collaboration within ISSA and between its member firms for the next three to five years could include the following topics. These are grouped according to strategic considerations and ordered within those groups by the feedback reflecting the early view of ISSA Members who participated in the webinars and the poll. This ordering has then been optimised for execution likelihood. Some of the ideas presented may not be achievable by ISSA and its members alone and/or may require extensive collaboration.

Cost Pressure to the Core

Industry APIs: Joint development of standardized industry APIs for core industry processes.

Common data standards: that facilitate data analytics.

Front-to-back ecosystem cost reduction: Identification of areas that lead to inefficiencies for all.

Business Process as a Service (BPaaS):

Cost sharing for selected R&D investments: Collaboration on key investments in digitalization.

Consolidation within the industry: out of the scope of this paper as ISSA would not be involved.

New Growth Paths

Client value-add increase: Identification of areas to increase the value they provide to their clients.

Private Markets and digital assets: Development of a shared Private Markets/Alternatives/token infrastructure.

Pursue a more rigorous Front to Back cooperation: Identification of beneficial areas to address opportunities.

Geographical cooperation: Facilitation of increased collaboration, specifically among smaller players.

Industry Disruption

Joint positioning: Joint efforts to accelerate the development of ESG standards.

Cyber threats arising from Cloud and Quantum Computing: Joint analysis and sharing of perspectives on risks.

SaaS ecosystems: Development of an interoperable SaaS ecosystem for data analytics and workflow solutions.

Covid-19 Early Lessons Learned

Best practice sharing digitization: Sharing of best practices and lessons learned from the accelerated digitization.

Best practice sharing: Sharing of best practices with respect to the implementation of regulation and risk management/operational resilience.

Best practice sharing future of work: Sharing of best practices and lessons learned from operating our businesses.

Conclusion

Among the ten forces in Exhibit 1, the ISSA working group believes that the most impactful forces for the Securities Services Industry revolve around changes in investor behaviour (i.e. shift to passive and ESG, digital and alternative assets, globalisation of asset flows) as well as changes in technology and technology-enabled competition (i.e. adoption of new technology, industry disruption by Big Tech). The next stage of the work is to further syndicate within the ISSA membership and decide which topics, listed just before the conclusion, that we should focus on. Please feel free to join us for that conversation.

The paper can be found at: https://www.issanet.org/e/pdf/ISSA_Future_of_the_Securities_Services_Industry_final_Nov20.pdf

ISSA thanks the Oliver Wyman team for their insightful help in creating and editing the paper, and also our Working Group member firms whom have contributed to the analysis so far. The authors co-chaired the Working Group.

ABOUT ISSA

The International Securities Services Association (ISSA) is an international organization; whose members include influential securities services leaders, regulators and other industry stakeholders. As a result of this broad membership base, ISSA is able to foster international coordination and collaboration across the securities services industry.

One of ISSA`s key missions is to actively contribute to the development and promotion of forward-thinking solutions that create efficiencies and mitigate risk within the global Securities Services industry. Through its activities, ISSA facilitates and stimulates active communication among all industry stakeholders.

This, in turn, leads to the provision of guidance and best practice which both assists industry participants and helps shape the future of the securities services market.

The most impactful forces for the Securities Services Industry revolve around changes in investor behaviour [...] as well as changes in technology and technology-enabled competition

Colin Parry
Chief Executive Officer
ISSA

Colin is the CEO of ISSA. He is responsible for creating & executing the ISSA strategy, growing the membership, and ensuring that ISSA continues to help the Securities Services industry develop solutions and reduce risk. He also runs his own consulting business.

Prior to joining ISSA in September 2019, Colin co-founded a fintech (Atomic Wire) and set -up his own consulting business after almost 25 years at UBS. At UBS he held a number of senior roles in the US, UK and Switzerland in both Operations and Finance, including running the global investment banking Operations and creating Finance Shared Services.

Colin holds a Bachelor’s degree in Money, Banking and Finance from Birmingham University (UK) and graduated from the Royal Military Academy Sandhurst.

William Hodash
Managing Director, Enterprise Data Management
DTCC

William Hodash serves as DTCC's Managing Director of Enterprise Data Management, responsible for deploying data governance and data quality processes throughout DTCC, focused primarily on data critical to DTCC's aggregation of risk exposures.

In recent years, he has focused on the identification and development of opportunities in reference data management, assisting DTCC clients in meeting emerging regulatory requirements. William led DTCC's team that in collaboration with SWIFT, established the Global Markets Identifier Utility, a local operating unit of the global legal entity identifier system, a key enabler to facilitate systemic risk analysis. William also led DTCC's team in the acquisition of full ownership of Omgeo, which previously was a joint venture between DTCC and Thomson Reuters.

William has managed a range of functions during his thirty-five years with DTCC, including Product Management, Operations, Client Services, and Strategic Business Development. He served five years in several senior roles with Omgeo, and three years in London, opening and heading up DTCC's first branch office outside the U.S.

William holds a Bachelor of Science from the State University of New York at Albany and an MBA from the Leonard N. Stern School of Business of New York University. He also serves on the Board of Trustees for the SIFMA Securities Industry Institute at the Wharton Business School of the University of Pennsylvania, the Operating Committee of the International Securities Services Association and the Office of Financial Research's Financial Research Advisory Council.

About DTCC

With over 45 years of experience, DTCC is the premier post-trade market infrastructure for the global financial services industry. From operating facilities, data centers and offices in 15 countries, DTCC, through its subsidiaries, automates, centralizes and standardizes the processing of financial transactions, mitigating risk, increasing transparency and driving efficiency for thousands of broker/dealers, custodian banks and asset managers. Industry owned and governed, the firm simplifies the complexities of clearing, settlement, asset servicing, data management, data reporting and information services across asset classes, bringing increased security and soundness to financial markets. In 2019, DTCC's subsidiaries processed securities transactions valued at more than U.S. $2.15 quadrillion. Its depository provides custody and asset servicing for securities issues from 170 countries and territories valued at U.S. $63.0 trillion. DTCC's Global Trade Repository service, through locally registered, licensed, or approved trade repositories, processes over 14 billion messages annually. To learn more, please visit us at www.dtcc.com or connect with us on LinkedIn, Twitter, YouTube and Facebook.

ISLA

Collateral Dynamics

The efficient mobilisation of collateral is important not only in the context of the smooth running of traditionally collateralised markets such as securities lending and repo, but collateral increasingly underpins many derivatives markets as well. In addition, the development of centrally cleared markets will also be a driver of demand for collateral as market participants pursue ever more efficient settlement frameworks.

The development of a collateralised market around securities lending was primarily driven by a lenders desire to simply mitigate any counterparty credit risk through the provision of either cash or non-cash collateral. Today, that is still the basic premise that reinforces the role of collateral in our markets.

The same collateral techniques however, provide market participants with the opportunity to actively manage other binding capital and balance sheet constraints and move collateral around the system in an efficient way.

2020 saw many facets of our markets fiercely tested, with trading systems and settlement engines having to deal with multiple volumes of normal business as market participants reacted to the trading extremes seen during the year. The collateral markets were no exception, and how they reacted provides some further context to these recent events as well as highlighting where future challenges will come from.

When we last looked at the data that we collect for collateral (July 2020), we observed a very different asset profile from those seen in prior years. Typically, non-cash collateral that is held within the European tri-party ecosystem is broadly split 45/45/10, between equities, government bonds, and corporate bonds respectively. In June however, the proportion of equities being used as collateral fell to the lowest we had ever seen, circa 13%. Looking back to that time, it is clear the underlying fall in equity values had fundamentally undermined borrowers' ability to use equities as collateral. What was something of a surprise however, was that instead of borrowers using government bonds in place of equities, there was in fact a steep rise in the use of corporate bonds as collateral, which increased to over 30% of all collateral (up from a typical level of 10%).

As we have arrived at the year-end, we can report that the collateral landscape in Europe had returned to a more normal picture. As the following chart confirms, equities as a proportion of all collateral held in European tri-party as at 31 December had returned to a more recognisable level of circa 44%, with government bonds and corporate bonds at 45% and 10% respectively.

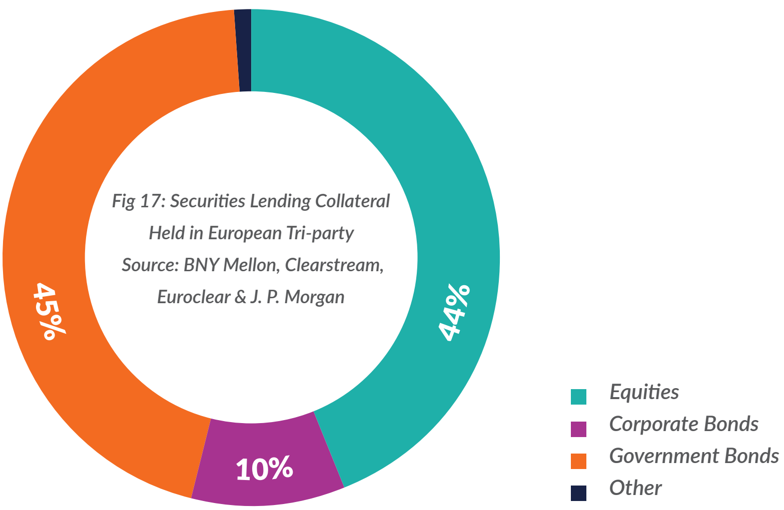


Fig 17: Securities Lending Collateral Held in European Tri-party Source: BNY Mellon, Clearstream, Euroclear & J. P. Morgan

Within the overall collateral mix, we have also tracked for some time the dispersal of government bonds by jurisdiction of issue. Looking at the domicile of issue can tell us something about global markets, including how stressed these markets might be. We have observed previously that although US Treasuries are the most heavily borrowed government bond asset class, they do not figure heavily in underlying collateral pools here in Europe. US Treasuries tend to be heavily borrowed as they may be used for multiple purposes and tend to command a lending fee premium. Consequently, it was surprising to see that the proportion of US Treasuries in lending pools increased to circa 30% of all government bonds in June, some three times the proportion one would have expected to see. This most likely reflects that borrowers, faced with falling equity values and other collateral shortages precipitated by quantitative easing across Europe, had to use more expensive US Treasuries. As we fast forward to the end of the year, the overall collateral usage of government bonds in tri-party returned to a more familiar pattern, with US Treasuries falling back to 11% of all government bond collateral, and European government bonds and JGBs making up 47% and 33% of the remainder of the pool respectively.

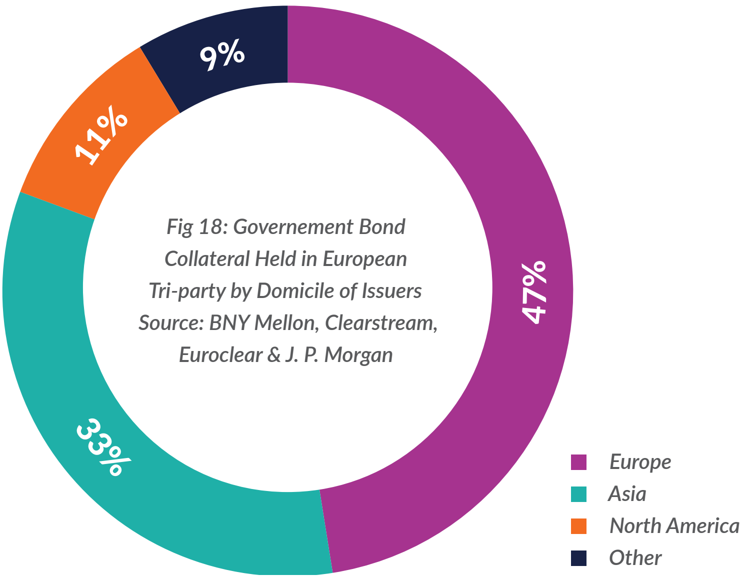


Fig 18: Governement Bond Collateral Held in European Tri-party by Domicile of Issuers Source: BNY Mellon, Clearstream, Euroclear & J. P. Morgan

Securities lending has traditionally been at the forefront of innovation around how market participants can better optimise collateral usage and drive the development of new products. Securities lending in Europe was the first market to embrace the use of equities as collateral, and through the provision of increasingly complex product offerings, vendors can now support multiple client business models. As we look to 2021, all the experience and know-how that exists in our markets will be needed to work with clients to provide innovative and novel solutions to support new business settings. The most prominent and potentially radical impact to our markets will be the increasing number of institutional clients who are adopting an ESG ethos within their investment process. In this regard, the selection of collateral and in particular the screening of any collateral received against ESG criteria, will present several important challenges for our markets. Due to the absence of any real taxonomies and definitions to support sustainable finance, it will be incumbent on industry associations to work with their members to develop best practice as a proxy for regulation, at least in the short term. We have highlighted before that ESG and the principles associated with sustainable finance are essentially part of a values-based framework that can conflict with the traditional rules-based regulatory frameworks that we are all familiar with. We are therefore mindful that trying to incorporate the former into a rules-based prudential world needs careful thought so as to ensure we achieve the right outcomes for all relevant stakeholders.

Through its Collateral Steering Group (CSG), ISLA is already working with its members to develop ESG collateral best practice guidelines as part of an overall ESG Policy Framework. The Policy Framework will support our members and wider industry participants to properly align securities lending with the broad aims and objectives of an ESG investment framework.

ISLA

Data Methodologies

This ISLA Securities Lending Market Report has been compiled using a range of data contributors together with specific information provided directly by our members through surveys and questionnaires.

We would like at this point to thank all of the various contributors for their efforts in assisting ISLA in the production of this report.

Loan information that includes details of securities on-loan across different asset and client types has been provided by three institutions that provide commercial data and benchmarking services for the securities financing industry.

DataLend, IHS Markit and FIS Global all collect data from industry participants on a high frequency basis and provide a range of securities lending benchmarking analytics that allow firms and their clients to better understand and assess the relative performance of any given lending programme.

Whilst each of these data providers covers broadly the same market we have chosen to use data from each to reflect the fact that each has a slightly different business model and client mix and therefore provide different perspectives across certain asset classes or regions.

By adopting this approach, we have been able to develop and publish the ISLA Global Securities Lending Aggregate.

This aggregate, that will be used to develop consistent trend indicators over time, has been compiled by combining information from each of the commercial data providers.

The aggregate was compiled to provide the most representative global estimation of the size and scope of the securities lending markets. In compiling the aggregate, we took the largest securities lending on-loan balance provided by the three commercial data providers as a starting point for the calculation.

This global on-loan balance was then adjusted to reflect incremental data from the other commercial data providers where their reported on-loan balances across different asset classes or regions created a more representative overall global number.

All regional and geographic analysis reflects the location of the issuer of the securities (as opposed to the location of the lender or borrower) as this is the basis on which the providers collect and analyse their data.

Data from the principal tri-party service providers active in Europe today is also incorporated within the report as part of our analysis of collateral.

About ISLA

Who are we?

The International Securities Lending Association (ISLA) is a leading industry association, representing the common interests of securities lending and financing market participants across Europe, Middle East and Africa. It has over 165 members, including institutional investors, asset managers, custodial banks, prime brokers and service providers.

What do we do?

Working closely with the global industry as well as regulators and policymakers, ISLA advocates the importance of securities lending in the context of broader capital markets. ISLA supports the development of a safe and efficient framework for the industry, by playing a pivotal role in promoting market best practice, amongst other things. ISLA sponsors the Global Market Securities Lending Agreement (GMSLA) and the annual enforceability review in over 65 jurisdictions globally.

How do we do it?

Through member working groups, industry guidance, consultations and world class events and education, ISLA helps to steer the direction of the industry and is one of the most influential voices on the global stage.

Further details may be found at: **www. isla. co. uk**

Disclaimer