EUREX Architects of trusted markets

SPECIAL REPORT

Derivatives markets 2021 – key trends & developments

A review of the Derivatives Forum Frankfurt 2021

Content

About the survey

Survey data contained within this report is based on a survey conducted by Acuiti on behalf of Eurex. The survey was run from 15 February to 12 March 2021. 200 responses and interviews were received and conducted comprising buy side (19%), banks (41%), brokers and non-bank FCMs (16%), proprietary trading firms (11%), infrastructure and software providers (11%) and others, including advisors and regulators (7%). Respondents were predominantly from Europe. The survey was segmented to present relevant sections to relevant respondents. For example, questions pertinent to FX were asked to respondents operational in the FX markets.

Introduction

It's been an unusual year, and a stressful one in many ways. But there is now light at end of the tunnel, and we all hope we are in the final stages of this pandemic.

This report is based on the 4th Derivatives Forum Frankfurt, which was held on 23 and 24 March 2021. We are very pleased about the development of our Derivatives Forum, which has rapidly become the leading derivatives industry event in Europe.

It was initially planned to be a physical event in Frankfurt but holding it virtually did bring some advantages: we were joined by many colleagues that otherwise might not have been able to attend in person. The event had over 3,300 attendants with over 20% coming from the US and Asia. This underlines the global relevance of the topics that we jointly developed with the derivatives community.

Eurex is one of the world's leading derivatives exchanges, serving a global community. At the same time, we maintain a strong commitment to Frankfurt as a key financial center. Derivatives trading is one pillar that makes Frankfurt so strong in this respect, but risk and collateral management also play an important role.

And Frankfurt's importance in European capital markets continues to grow as we have built a financial ecosystem that is appealing for international investors but will also facilitate Europe's recovery from the current crisis.

At Eurex, we provide leadership through innovation. We respond to clients' needs and to market trends, but we are also thought leaders. And we are ready to continue innovating.

This report comes in five streams: Markets & Regulation, Derivatives & Portfolio Management, Liquidity & Collateral Management, Technology & Innovation, and Responsible Investing.

The report contains ideas about how to react to changing derivatives markets, discuss the evolution of ESG investing, and discuss the changing landscape of liquidity and collateral management, to name just a few topics.

Michael Peters, CEO, Eurex

Section 1
Markets & regulation

At the beginning of 2020, markets expected Brexit and the U.S. elections to be the main drivers of market volatility. However, by the end of January, the ultimate black swan was coming into view.

The first impact of the spread of COVID-19 in derivatives markets was felt in February. Intense volatility gripped global markets while firms relocated staff to work from home.

While the industry performed admirably in managing the crisis during the intense operational challenge of staff relocations, inevitably, there are lessons to be learned. Debates around margin models and investment in post-trade infrastructure easing the industry's path through the next crisis are underway.

At the same time, Brexit did not go away. The U.K. formally left the EU on 31 January 2020, and the new trading arrangements came into force at the end of the year. The impact of the new relationship between the EU and the U.K. was felt immediately, with the trading and clearing of certain instruments relocating from London to the EU and the United States.

However, there are significant challenges ahead for derivatives markets both in the U.K. and the EU as they navigate equivalence and the future relationship, which, despite the importance of financial markets to both economies, was not addressed in the trade deal.

This section looks at the likely evolution of Brexit, the lessons learned from COVID-19, and the potential impact of the EU's vast recovery program. While 2020 has mercifully passed, its legacy will be with us for many years to come.

Will the Brexit wave shift liquidity away from London?

While the U.K. formally left the EU on 31 January 2020, it was on 1 January 2021 that the new trade deal representing the de facto departure date came into effect. Considering the prominence of the City of London in terms of its contribution to the U.K.'s GDP, the scant regard paid to financial services in the trade deal is surprising.

Indeed, the only mentions of derivatives or clearing in the 1,500+-page EU–U.K. Trade and Co-operation Agreement appear in lists of definitions of what constitutes financial services. Fish, on the other hand, received 368 mentions in the report, including three separate annexes listing 76 different species of fish, each with detailed outlines of fishing quotas.

Overall, financial services provisions cover four pages of the agreement, three pages of which are definitions. Law firm Shearman & Sterling points out that, based on the scant provisions for financial services in the treaty, it is easier to say what it does not cover.

With regard to derivatives, the most important omissions are the previous passporting agreements and the mutual recognition regime on which cross-border trading had been based prior to 2021.

Instead of firm provisions with clear definitions, the treaty commits the EU and the U.K. to an agreement to "establish a regulatory co-operation on financial services, with the aim of establishing a durable and stable relationship between autonomous jurisdictions." EU and U.K. negotiators outlined the basis of that co-operation on 26 March.

In the interim, the U.K. has created a temporary permissions regime that allows EEA firms to access U.K. markets for up to three years prior to recognition as a third-country firm, while the EU has granted temporary equivalence to U.K. CCPs until 30 June 2022.

"The equivalence-status for derivatives clearing will be a 'make-it or break-it' moment for the U.K. Close to 80% of all Eurozone clearing members' OTC derivatives positions are cleared through U.K. CCPs, the equivalent to 15% of the value of derivatives contracts cleared by the U.K.," says Ludovic Subran, Chief Economist at Allianz SE.

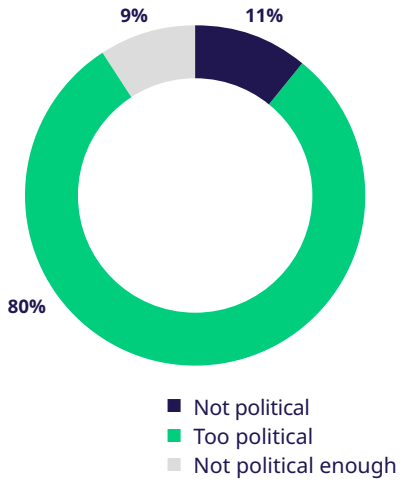
"The process could take a long time as the European Commission is giving equivalence product by product, and the Bank of England has said it won't seek equivalence for all products at 'any price' to avoid the U.K. becoming a 'rule-taker'," says Subran.

> **"It reminded me of the Millennium Bug when there was a lot of concern but also preparation and ultimately, the fears did not materialize. That is what we have seen to date with Brexit.**
>
> **Eric Müller**
> **CEO, Eurex Clearing**

He warns that the U.K.'s competitive edge in some types of derivatives trading may suffer after Brexit, depending on the equivalence-status contracts it may negotiate beyond mid-2022. In the absence of an equivalence deal, listed derivatives traded on U.K.-regulated markets would be classified as OTC products with the associated reporting requirements and impact on mandatory clearing thresholds calculated in the Uncleared Margin Rules.

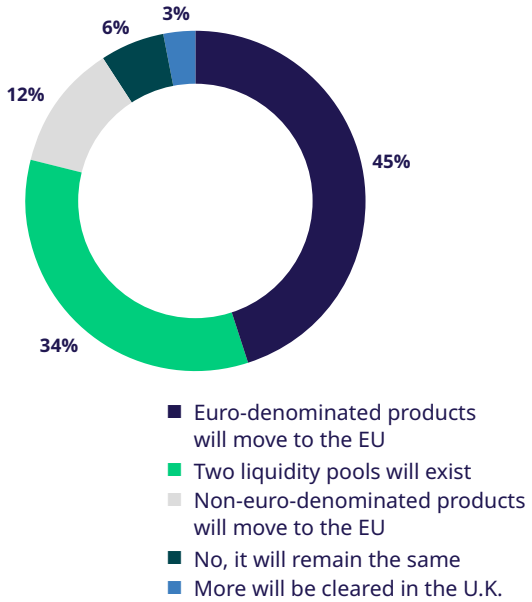
Considering that the U.K. and the EU's current regulatory framework are identical, one would think the granting of equivalence would be a simple process. However, EU concerns that the U.K. will seek to deregulate its financial services, fueled by calls to create a "Singapore-on-Thames" by some in the ruling Conservative party and other political considerations, mean a deal on financial services may not be easily realized. The picture is complicated by calls for an "enhanced equivalence" regime. Issues such as the regularity of review and the timeframe for the withdrawal of equivalence would be renegotiated to create greater certainty and stability. The U.K. is mindful of the EU's actions against Switzerland when it threatened to remove equivalence after the country voted in a referendum to impose controls on free movement.

Do you think the "equivalence" process is:



Source: Acuiti

Do you think that Brexit will result in a move of derivatives clearing away from the U.K.?



Source: Acuiti

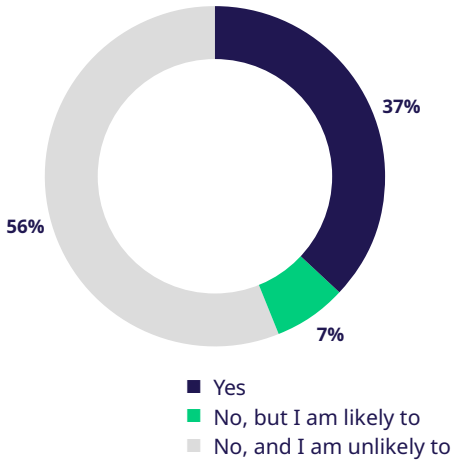
Many firms in the market have already activated contingency plans. Over the past five years, many U.K. financial institutions have set up offices in the EU. Erik Müller, CEO of Eurex Clearing, praises the speed and efficiency with which most firms moved to adjust.

"The industry started to take Brexit for real only mid-way between the popular vote and the effective exit last year. But that still gave the industry time to prepare."

"It reminded me of the Millennium Bug when there was a lot of concern but also preparation and ultimately, the fears did not materialize. That is what we have seen to date with Brexit."

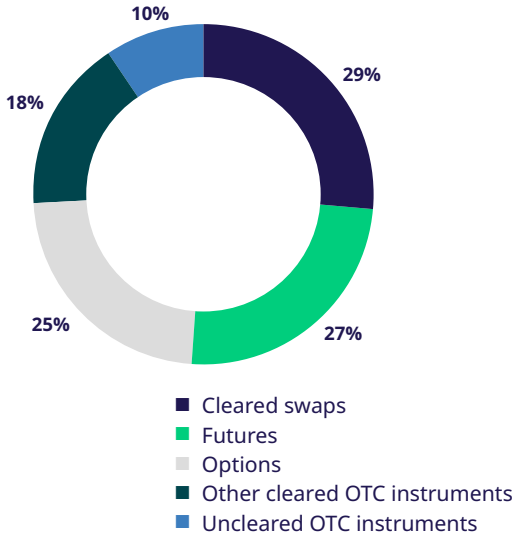
In the early days of Brexit, there were sharp moves in trading activity. This was most obvious in the equity markets, where billions of euros in trades moved to the EU, predominantly to Amsterdam-based venues, in the early days of January, resulting in Amsterdam becoming Europe's predominant equity trading center by daily volume.

Have you changed where you trade or cleared any instruments as a result of Brexit?



Source: Acuiti

Which instruments?



Source: Acuiti

While this represents a blow to London's prestige as a financial center and a hit to the U.K. Treasury, derivatives are where the true opportunity lies for the EU.

There have been significant shifts in OTC derivatives trading flows, mainly as a result of the EU and U.K. derivatives trading obligation. These shifts have benefitted both the U.S. and EU venues.

However, the benefits have not been universal for the EU. EU banks are subject to the EU Derivatives Trading Obligation and, therefore, must trade certain instruments on an EU trading venue or one that has been granted equivalence, effectively SEFs in the United States. This creates a significant disadvantage for EU banks with branches in London who no longer have access to the liquidity pools. It also hands an advantage to U.S. SEFs without any benefit to the EU. Clarus Financial Technology estimated that, as of February 2021, around 20–40% of European swaps trading is now executed on U.S. SEFs.

For the EU, however, the real prize is the clearing of euro-denominated instruments. Euro-clearing has been subjected to a long-standing dispute between the EU and the U.K. that pre-dates Brexit. In 2015, the U.K. successfully sued the European Central Bank to prevent a mandate that CCPs clearing euro-denominated trades must be based in the eurozone.

Brexit, however, added new impetus behind moves to shift liquidity in euro-clearing to Frankfurt. Brussels has set up a working group to examine the technical challenges to such a shift in the face of protests from the governor of the Bank of England, Andrew Bailey.

"Eurex Clearing has worked hard to provide a market-led, liquid alternative in particular with regards to Euro-swaps," says Müller.

The Acuiti survey found that 37% of respondents had shifted where they trade or clear instruments to the EU, with euro-denominated cleared swaps being the most commonly moved instrument. However, with just 7% of respondents still planning to move, it suggests that the current phase of any transition is nearly over. However, this process will begin again in earnest if an agreement is not reached on a long-term equivalence deal.

In terms of listed derivatives trading and clearing, the picture is more complicated. Liquidity in the execution of derivatives is notoriously sticky, with a massive advantage lying with the incumbent. Despite this, the Acuiti survey found some evidence that firms had moved where they clear or execute futures and options trades because of Brexit.

Competitive launches may accelerate that shift, with both Eurex and CBOE launching FTSE 100 contracts (licensed at Eurex and a look-a-like at CBOE) trading on EU venues.

A recent Acuiti poll found expectations of a shift in trading to the EU in the U.K.'s flagship index contract. Should political pressure continue to escalate, or regulatory barriers be increased, there could be a fragmentation of liquidity in several key European contracts.

Learning the lessons of COVID-19

COVID-19 was the ultimate test in operational resilience for derivatives markets participants, as volumes spiked to unprecedented levels while firms were relocating staff to work from home. While the industry performed admirably during the COVID-19 storm, lessons have been learned.

The first thing most people realized when faced with the reality of COVID-19 was that disaster recovery plans envisaging a wholesale move to a back-up site were redundant.

Firms that had lived through SARS were better prepared. Agnes Koh, chief risk officer at SGX, says the exchange's business continuity plan had pandemics embedded into it and ran simulations that involved all staff working remotely. The exchange had run a pandemic test in September 2019, which enabled it to evaluate and address the issues raised during that process.

However, most firms elsewhere were forced to ship trading infrastructure to traders' homes and figure out how to adjust to remote working on the hoof.

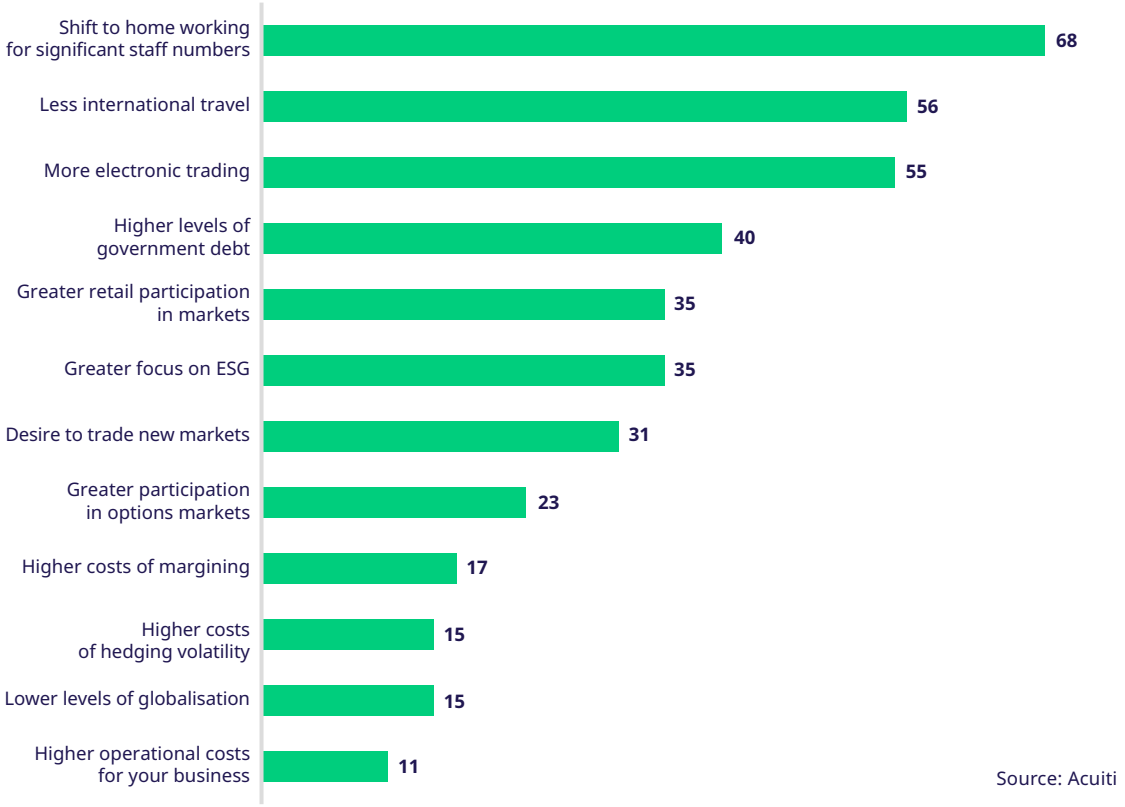
Andrea Berni, Managing Director, Head of Exotic Trading EMEA, at Goldman Sachs, says: "The move to working from home during the extreme volatility was enabled by technology. It would have been extremely hard to do in the past."

When volatility spiked in February and March 2020, so did margins called by CCPs, adding to the pressure on firms in the market. Variation margins moved in line with market moves, but initial margins requirements also spiked aggressively, tripling in some instruments at some CCPs.

While this is an inevitable reaction for models designed to adjust to market conditions, this pro-cyclicality of margins has become a central issue for many FCMs who argue that current models exacerbate market stress during periods of volatility.

An indication of the scale of additional margin requirements is seen in the fact that segregated assets held by U.S. FCMs on behalf of clients rose from USD 174 bn at the end of February

What do you think will be the long-term, near-permanent changes with regard to your business and the overall market from the COVID-19 crisis?



to USD 279 bn at the end of March. CCP deposits at the Federal Reserve rose from USD 70 bn to more than USD 270 bn during the same period.

Berni says: "Margin requirements in some of the main indices tripled from trough to peak. That means that as a user of derivatives, you have three choices: you either pre-fund and have the money ready to go when you get a call; you can commit to deleverage positions to keep IM constant, or you can scale the position to a small enough size on day one you won't have a problem. In practice, there is always going to be a balance to be struck."

FCMs are increasing calls for greater harmonization across the industry and the expansion of margin floors, limiting the falls in margin during low-volatility periods and limit increases during bouts of volatility.

While the industry's key debate now surrounds the margining regime, COVID-19 will bring changes in numerous other market areas. Sell-side firms are upscaling investment in post-trade technology, which buckled under the pressure of the high volumes at many firms.

In addition, the process of give-ups and average pricing has come under scrutiny, as weaknesses in the current system were exposed during the height of the volatility. The Futures Industry Association is currently leading a working group to investigate this issue.

Elsewhere, the changes brought by the experience of COVID-19 are myriad. The Acuiti survey asked respondents what they thought would be the near-permanent changes resulting from COVID-19 to the market and their businesses.

Unsurprisingly, the most common response was a shift to greater flexibility over working at home. While some banks have come out and said that they would mandate a return to the office for most, if not all, staff, many companies will, inevitably, take a more flexible approach.

Encouragingly for listed markets, more electronic trading, greater retail participation in markets, an increased focus on ESG, a desire to trade new markets, and greater participation in options markets also featured prominently in respondents' predictions of the future.

Next Gen EU Bonds

One of the most significant long-term changes that COVID-19 is likely to bring to European capital markets is the EU's emergence as a major bond issuer. While the EU has borrowed in financial markets as an issuer for many years, the total issuance to its name is just EUR 50 bn to date.

That is set to change with the launch of the EUR 100 bn Support to mitigate Unemployment Risks in an Emergency (SURE) program and the EUR 750 bn EU recovery fund, known as Next Generation EU (NGEU).

The sheer scale of the issuance will place the EU alongside major sovereigns and create new opportunities for investors in the EU and beyond. With annual volumes of EUR 150 bn – 200 bn, the bonds will compete with Germany, France, and Italy in terms of the size of issuance.

The first tranche of the SURE bonds last year was 13 times oversubscribed, indicating strong investment demand. The NGEU bonds come in tenors of between 3 and 30 years, establishing a yield curve for EU borrowing, and will be issued up to 2026, with the majority of the borrowing between now and 2024. Repayment will start in 2027 and continue to 2058.

European fund managers, central banks, and bank treasuries are the main investors in the SURE bonds issued last year. The EU is seeking to increase international participation ahead of new issuances this year and beyond.

The five EU SURE bonds are eligible for trading at Eurex repo and as margin collateral at Eurex Clearing.

There remain some significant uncertainties about how the program will work, not least around the fact there are no agreed-upon standards for the issuance of EU Green Bonds yet.

Bjarke Smith-Meyer, Finance Reporter at POLITICO Europe, says: “No debt can be raised unless all 27 national parliaments sign off on the legal changes (required to launch the scheme).” The other problem is that the Commission has pledged to finance 30% of the fund to go to green bonds without having a blueprint for what that debt issuance would look like.

“Finally, there is the issue of the political risk. Imagine if a country doesn't meet its reform targets but needs the money. Does the Commission deny that country the desperately needed recovery aid, or will it turn a blind eye? These are the questions that EU officials in Brussels are concerned about as the 'blind eye' approach could undermine the whole process.”

How the money is repaid also poses a challenge. The EU has not yet finalized where taxes will rise to repay the debt. However, it has been suggested that a range of taxes, including an EU-wide financial transaction tax or a tax on large digital businesses, might be the chosen approach. The former could create significant instability for financial markets.

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Section 2
Derivatives & portfolio management

Today's European derivatives markets face two significant opportunities, one a long-standing ambition and the other a rapidly emerging wave.

Futurization of over-the-counter (OTC) markets has been hailed as the next big thing since the financial crisis but has, to date, failed to live up to early expectations. However, two products – total return futures and dividend futures – came of age during 2020, suggesting a path forward for growth.

The other opportunity that has arisen from the crisis is the growth of retail trading in listed derivatives in U.S. markets. Such trading in Europe has long been stymied by the prevalence of contracts for differences (CFDs), certificates, and warrants targeted at retail investors. However, the launch of micro contracts on Eurex could fuel a retail revolution in European markets.

Alongside these developments, the spread of COVID-19 in February and March 2020 caused unprecedented volatility. The fact that the derivatives market maintained orderly trading is a testament to the industry's operational resilience.

Out of the market turmoil comes a new normal. Elevated levels in the VIX and VSTOXX® Index underscore the uneasiness of investors who are looking to hedge adverse market moves in both directions. Trading this new normal brings great opportunities but also new risks.

This section explores how 2020 has changed the landscape of trading in European derivatives markets and the opportunities for market participants to capitalize on those changes today.

Futurization brings new opportunities for the buy-side

When, in October 2012, the Intercontinental Exchange (ICE) transitioned all its energy swaps into listed futures in response to post-crisis reforms designed to transition over-the-counter (OTC) trades into central clearing, many in the market breathlessly predicted a wholesale "futurization" of the OTC markets. Almost a decade later, significant progress has been made in OTC clearing, but predictions of the OTC markets' demise have proved to be greatly exaggerated.

Nevertheless, significant progress has occurred in specific areas of the market. Take equity derivatives as an example. There, two "futurized" products – dividend futures and total return futures – have increased liquidity and brought new participants into the market.

Eurex launched total return futures and dividend futures in 2016 and 2010, respectively. Dividend futures, which are listed as single stocks or an index of stocks and settle at the dividend paid by the underlying company or companies, are used by investors to hedge or trade exposure to dividend uncertainty.

Meanwhile, total return futures provide a futurized, cleared version of total return swaps, representing the underlying index's theoretical total exposure by incorporating both the share price movement and the dividends.

While volumes had been steadily increasing following their launch, dividend futures came of age during the COVID-19 crisis. As the world realized the scale and impact of the pandemic in February and March 2020, companies were forced by economics or regulators to pull dividends, sometimes after they had been announced.

Dividend futures played a vital role in managing the risk. Eurex, which offers dividend futures on more than 80 underlying single stock or equity indices, saw more than 5.7m trades of its dividend products between mid-February and the end of March 2020, more than the previous six months combined.

Randolf Roth, Head of Equity and Index Derivatives at Eurex, says the product proved its value during the crisis. "Last year, we saw positive growth in dividend futures after substantial growth in March, but more importantly, we experienced a black swan event, which tested the integrity of the product," he says.

At the beginning of February, the implied volatility of EURO STOXX® dividend options was 1.34%, slightly higher than the historical February average of 1.05%. This volatility surged throughout February and March as dividends that were first delayed and then canceled caused many market losses.

"There was so much volatility that what happened was totally out of the scope of any models," says Roth.

Following the volatility in February and March, several participants pulled back from the market. However, according to Tobias Lindemann, a Managing Director at Goldman Sachs, the market has since returned to near normal.

"The volatility last year has put the product on the radar. While several firms retreated from the market in the spring, we saw clients come back over the summer due to the dislocation. Subsequently, we have seen, in Germany, several smaller boutiques launch to focus on strategies around dividends," he says.

Total return futures (TRF) also saw record trading during the pandemic-induced volatility with TRFs on the EURO STOXX 50® trading 1.9 m contracts in March 2020, an increase of more than 1.7 m from March 2019. As a dividend-neutral instrument, TRFs are ideal for times of extreme dividend uncertainty. However, their application extends well beyond the current era.

"TRFs have seen decent increase in open interest as the product becomes more accepted," says Lindemann. "We are seeing interest from clients that don't want to take an active position in dividends but want to hold long positions in TRF format which suits them better than a swap owing to central clearing and mitigated counterparty risk."

In December, BNP Paribas and Goldman Sachs completed the first basket trade in equity total return futures, which Roth says marked a major step forward in providing exchange-traded alternatives to the OTC markets in equities.

The basket trade functionality (BTRF) allows users to construct and modify a basket swap position in a set of underlying reference equities.

"The BTRF aims to replicate the payout of an OTC swap in a listed format," says Roth. "As the Uncleared Margin Rules continue to be introduced, we think that more end clients will look to cleared products with lower counterparty risk."

The product is targeted at banks but is increasingly being used by inter-dealer brokers.

"BTRFs are an interesting construct that will serve, initially, the interbank markets," says Lindemann, "but as thematic investing becomes more important for clients, BTRFs will become more relevant for them as well. For the dealers, BTRFs offer cost savings and capital efficiencies, and clients will be able to benefit from that."

On 29 March 2020, Eurex launched dividend and total return futures on the FTSE 100, along with two additional TRFs on the EURO STOXX® Banks Index and the EURO STOXX® Select Dividend 30 Index. The exchange also plans to launch more contracts while also furthering the rollout of single stock dividend futures.

The FTSE 100 launch injects competition into a market currently dominated by ICE in London, and it could capitalize on any disruption emanating from the ongoing Brexit negotiations regarding equivalence.

However, Roth says the FTSE 100 launch is more than just a Brexit play. "The biggest driver for the FTSE launch was that Eurex is a European powerhouse when it comes to equity derivatives and we are developing a foothold in non-European index products."

"We work with Qontigo and MSCI, and it makes sense – as FTSE Russell is a major index provider – that we expand our range of indices. We can create cross margining synergies and ease of access for the end-user."

Unlike the transition of energy swaps in 2012, the process of futurization in other asset classes was more complex and slower to develop. However, dividend and total return futures prove that listed products can, with innovation, be built to replicate the economics of OTC contracts in a cleared environment. As UMR brings more firms into such an environment, innovation will inevitably advance the cause.

"The BTRF aims to replicate the payout of an OTC swap in a listed format. As the Uncleared Margin Rules continue to be introduced, we think that more end clients will look to cleared products with lower counterparty risk.

Randolf Roth
Head of Equity and Index Derivatives, Eurex

Trading the new normal in 2021

The year 2021 has introduced new dynamics to derivatives markets with the rise of retail flow and an elevated expectation of volatility.

Between February 2020 and the time of writing, global markets have been dominated by rallies punctuated by several sharp sell-offs in multiple asset classes, and expectations of volatility have remained elevated, with the VIX remaining stubbornly above 20 during the same period.

Added to the mix have been the rise of retail participation in U.S. equity and options markets and an acceleration of the trend toward more volatile tech-based stocks dominating major U.S. indices.

Alexandros Vlavianos, Global Derivatives Spreads Trading Lead for Optiver Europe, says, “Retail participation has been the dominant theme in U.S. markets this year, and this factor has spilled over into trading in Europe and Asia.”

“Single stocks are driving the market today, and there has been great sector and inter-sector dispersion. At the same time, volatility flows into these single stock names have been driving the index vols like never before.”

Trading in "meme stocks," such as GameStop, made headlines in January, causing volatility across the market.

“I was very surprised to see how this volatility spilled over into other asset classes and markets. We still see the effects of that in the market today with equity vols remaining elevated, especially in the tails, despite the S&P being at all-time highs,” says Vlavianos.

These trends have created opportunities but also risks for trading firms. The appetite for pure short-volatility trades, such as short variance positions, disappeared entirely after March 2020, and as a result, convexity in the market remains extremely dislocated.

However, appetite for relative value trades has slowly returned with interest recently increasing in dispersions, skew, and cross-asset ETF relative-value (RV) trades. During 2021, many expect risk appetite for RV and short-volatility trades to rebound further, thus helping to compress the elevated skew and convexity premiums visible in the market today.

> **“Retail participation has been the dominant theme in U.S. markets this year, and this factor has spilled over into trading in Europe and Asia.**

Alexandros Vlavianos
Global Derivatives Spreads Trading Lead, Optiver Europe

For many hedge funds, 2020 was one of the best years in history, and Tilo Wendorff, Managing Director and Head of Absolute Return at Prime Capital AG, expects 2021 to be strong as well.

"We think this year will be a great year for alpha," he says. "People need to think about how they find the right strategies to create a good portfolio out of beta and alpha. The expected return for beta is going down, and that is a challenge that allocators will face going forward."

Wendorff says that with negative returns from bonds forecast over the next ten years, returns on passive portfolios of bonds and equities will be squeezed.

"We are coming out of a ten-year bull market with low interest rates, which has pushed up the price of long-duration assets. Investors should, therefore, look to get the beta exposure as cheaply as possible and then overlay that with sources of alpha."

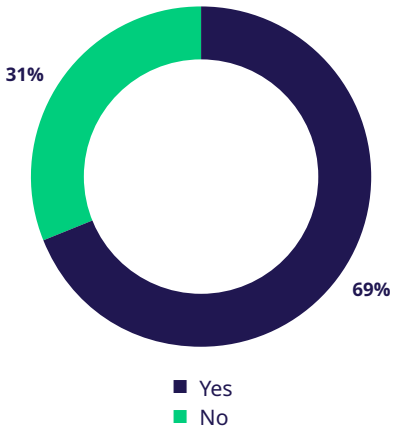
"To create returns, funds need to find their risk appetite. We are in an environment where asset allocators can get low-cost access to smart beta. For me, the most obvious portable alpha source are alpha-focused hedge funds with low market exposures," says Wendorff.

The Acuiti survey found that asset managers with multi-asset class portfolios were split on their approach to the market in 2021. Sixty-nine percent of respondents in this category felt that 2020 had weakened the argument for a 50/50 stock/bond portfolio allocation.

Thirty-one percent were planning on increasing equities in their portfolios during 2021, while 23% were looking to decrease and the remaining 46% intended to maintain the same levels as in 2020.

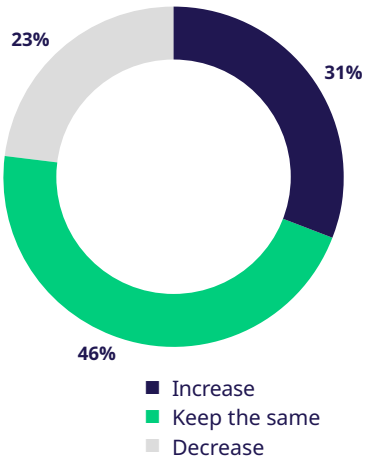
Another impact on the buy side of volatility in 2020 has been an increase in hedging costs. Seventy percent of respondents said that their costs of hedging had increased, with 8% describing that increase as significant.

Do you think that 2020 has weakened the argument for a 50/50 stocks/bonds portfolio allocation?



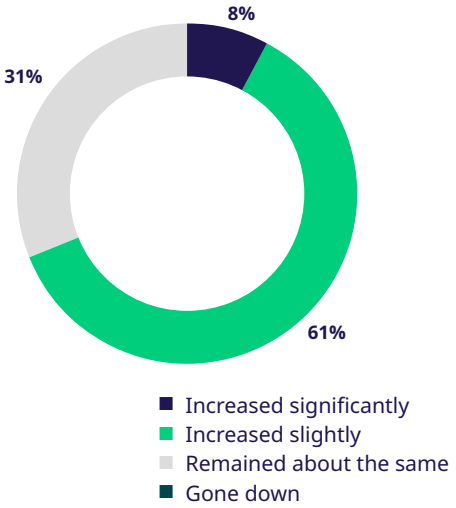
Source: Acuiti

Are you planning to increase or decrease equities in your portfolio in 2021?



Source: Acuiti

Have the costs of hedging changed for your business as a result of the volatility in 2020?



Source: Acuiti

Retail opportunity in European listed markets

European options traders have spent the first few months of 2021 eyeing with envy the massive opportunities in U.S. markets where retail investment continues to boom. The increased participation of retail investors in U.S. markets was, in part, enabled by the launch and growth of micro contracts on established indices. As Eurex launches its own suite of micro contracts, could Europe be positioned for a retail trading boom?

Micro contracts generally have notional volumes of approximately one-tenth of their mini-equivalents and are, therefore, more digestible to retail traders with smaller trading pots. The success of recent launches in the U.S. represents one of the defining trends of derivative market evolution over the past two years.

In Europe, however, the landscape for retail trading is markedly different than in the U.S. The prevalence of warrants, certificates, and contracts for difference (CFDs) presents a barrier to the widespread adoption of listed derivatives markets by retail traders.

On 19 April, Eurex launches micro contracts based on the DAX®, EURO STOXX 50®, and SMI® benchmarks, which Stefan Fröhlich, Head of Trading Academy and WH SelfInvest, says will spur significant interest from retail traders.

“There are huge trading volumes in index CFDs. There is potential for that to migrate to the micro contract. The volume is going up in these contracts, and more sophisticated retail traders are coming to the market," says Fröhlich. "The launch of micro contracts is timely as we see increasing appetite from retail traders to trade listed derivatives.”

Fröhlich says that retail traders are likely to be attracted by improved pricing, speed and the lower trading costs of listed futures and options. This, combined with the increasing sophistication of retail traders, should create fertile ground for growth in their adoption of listed trading.

Whether listed markets can grow to dominate the thriving CFD market without a regulatory push remains to be seen. However, the launch of micro contracts on major European indices will create greater choice for the retail market and provide a less expensive and safer means of accessing exposures and trading.

The launch of micro contracts is timely as we see increasing appetite from retail traders to trade listed derivatives.

Section 3
Liquidity & collateral management

Collateral and liquidity are the oil that smooths the flow of trillions of dollars in trades through global financial markets.

Both components of financial markets have undergone significant change over the past five years, and both were tested to the core by the volatility in the wake of the spread of COVID-19 in 2020.

The sophistication of collateral processing has been increasing since the financial crisis, as demands upon it have also increased in the wake of new rules that require more trades to be collateralized.

The story of collateral in the past decade has been one of optimization. Collateral has become a front-office consideration across the buy and sell sides, and sophisticated tools have been employed to ensure the right collateral is always in the right place.

However, that can only take firms so far. As post-crisis reforms impact banks' balance sheets, banks and their clients must change how they trade to further optimize collateral, including greater use of repo markets and increased adoption of clearing.

As capital rules have forced banks to evaluate how they intermediate collateral transformation, so too have they forced some to reduce the levels of liquidity they can provide to the market. This has created opportunities for electronic liquidity providers (ELPs) to step up and fill the void.

This section examines the recent evolution of liquidity and collateral management, how they have changed, and how the buy side approaches the markets today.

Bringing cleared repo to the buy side

Post-financial crisis reforms requiring firms to clear and post margin on more instruments are increasing demand for repo. At the same time, however, they have diminished banks' ability to intermediate. Cleared repo has gained traction among dealers as a result, and now attention is shifting to the buy side.

Repo markets have traditionally been termed the "plumbing of the financial system." However, Duncan Wood, Global Editorial Director of Risk.net, says a better analogy today is that of cylinders within an engine that convert fuel into energy.

For the buy side, repo markets are a vital source of cash for asset holders and a place where cash holders can get additional yield and keep excess funds off their prime brokers' balance sheets. In addition, repo markets are used to source collateral for derivatives transactions and for several other core functions.

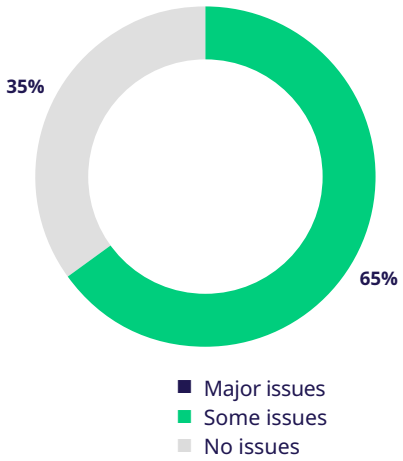
Historically, global banks fully intermediated the repo market. However, since the global financial crisis, the economics of bank intermediation have changed significantly in the wake of new capital rules in the form of the Leverage Ratio, the Liquidity Coverage Ratio and the Net Stable Funding Ratio, which place limits on banks' involvement in the repo markets.

As a result, there have been several dislocations of the repo market over the past decade, most notably in September 2019, when secured overnight financing rates (SOFR), which typically fluctuate by no more than 20 basis points, moved more than 700 points intraday.

The reasons for the dislocations are numerous. For the September 2019 event, an analysis highlighted the due date for corporate taxes, a large settlement of U.S. treasury securities, and the underlying impact of quantitative easing on the supply of cash across the financial system.

However, while each individual dislocation has specific triggers and the Acuiti survey found that no respondents who were operational in repo experienced major issues during the volatility in February and March 2020, the underlying fragility of the repo, particularly around quarter- and year-end, is, in the main, a result of the lack of capital and funding banks can commit to ensuring its stability.

How well did the repo market perform during the market stresses in 2020?



Source: Acuiti

One major solution is to expand the use of cleared repo. Clearing allows the CCP to apply multilateral netting, which can collapse exposures and minimize the capital required to operate in the repo market. Already common in the inter-dealer market, efforts are underway to increase the involvement of asset managers, pension funds, and hedge funds in the cleared market.

Buy-side clearing is not new. In the United States, the DTCC's Fixed Income Clearing Corporation processed its first buy-side-cleared repo transaction in January 2018 and built up significant volumes in 2019 before the Federal Reserve stepped into the repo market during the COVID-19 crisis.

Eurex and LCH have both launched cleared repo services for the buy-side. Matthias Graulich, Global Head of Strategy & Product FI, Funding & Financing at Deutsche Börse, sees great opportunity to develop buy-side-cleared repo in Europe. “The dealer to client business is still voice traded and bilateral with lower levels of electronification and no CCP clearing. Cleared repo solves many of the challenges that banks and buy-side firm face.”

Eurex has had to overcome several hurdles to develop its offering, and it could not simply copy and paste the model is deployed for derivatives client clearing.

“The big difference between the repo book and the derivatives book at a bank level is that the repo book sits with the nominal exposure on the bank’s balance sheet,” says Graulich. “Applying the traditional dealer to client clearing model in which the bank acts as a clearing member would result in the build-up of large balance sheet exposures in the repo world.”

"The nut we had to crack was how to get the buy-side directly facing the CCP for the repo transaction while at the same time addressing buy-side restrictions such as default fund contributions and operational requirements a direct member is exposed to.”

The solution was that, legally, the client faces the CCP, but certain activities, such as default fund contribution, are undertaken by the bank acting as a clearing agent.

The big benefits for the client are that liquidity for cleared repo tends to remain constant, or even increase, during market stress and the multilateral netting that the banks can harness when clearing should result in better prices for cleared repo.

The offering is gaining traction, with PGGM becoming the first pension fund to join the service in 2019. Jan-Mark van Mill, Head of Treasury and Trading at APG Asset Management, says the firm will go live before year-end.

“A clear advantage of cleared repo is that you can trade electronically with all the collateral requirements handled by the tri-party engine at Clearstream. It is a very efficient way of managing your collateral buffers and liquidity needs while giving you access to a large pool of liquidity and cash givers,” he says.

Charlie Badran, Head of Repo at Axa Investment Managers, says that, while the firm is not currently in the process of joining a cleared repo facility, “it is definitely something that we will be using in the future.”

“Repo markets have traditionally been termed the ‘plumbing of the financial system’. However, a better analogy today is that of cylinders within an engine that convert fuel into energy.

Duncan Wood
Global Editorial Director, Risk.net

Eurex is currently in discussions with regulators over expanding the service to allow hedge funds to participate, a move that would complete the ecosystem and maximize the multilateral netting benefit the CCP can provide.

One challenge for Eurex is to increase the number of clearing agents currently offering the service to clients. Currently, four banks are offering it on Eurex. However, Graulich says that number will soon increase. With increasing demand from the likes of APG and the interest from hedge funds, more clearing firms are looking at how they can offer it to clients.

"I am convinced that when we speak next year, the number of clearing firms offering this service will have increased," says Graulich.

"There is significant interest from clearing agents and hedge funds to go down the route of cleared repo. It is economically a challenging discussion for hedge funds as we have to ask for margin, which is usually not charged bilaterally today, so there is no level playing field. Nonetheless, the overall benefits are sufficiently strong to make it a win-win situation for all stakeholders.

"Additionally, if mandatory haircuts kick in down the road is will create that level playing field and make CCP clearing even more attractive. But today, the critical element is that the immediate beneficiaries from a balance sheet perspective are the banks, and they must be prepared to share these benefits with the end client. That is key to increasing adoption."

Volumes hold back direct clearing adoption among asset managers

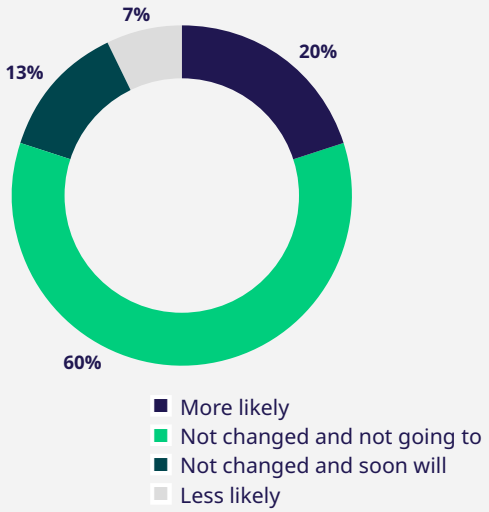
While several larger asset managers and pension funds are engaging with CCPs to have direct access to clear repo and other transactions, firms with lower volumes are not set to take the plunge.

The Acuiti survey found that 20% of asset manager respondents were becoming more likely to consider direct access to a clearinghouse; 60% said they would not consider it.

The major barrier for firms that said they would not consider direct access to a clearing-house was that their volumes were not big enough to justify it. The second most common barrier was the belief that costs outweigh the benefits, followed by a lack of internal resources to develop internal systems.

As volumes of cleared trades increase with the expansion of the Uncleared Margin Rules and an expected move to clear more products, interest in direct clearing looks set to rise in tandem.

Are you becoming more or less likely to consider direct access to a clearinghouse?



Source: Acuiti

Mitigating margin pressures

Efficiency in collateral management has been a central focus for asset managers and their sell-side partners for some time now. However, the COVID-19 crisis exposed collateral movement weaknesses across the market, which has now taken center stage.

Coen van Walbeek, Global Head Treasury & SBL, ABN AMRO Clearing Bank, says: "Last year we saw extreme volatility which increased initial margin levels and we have also seen very high volumes in the first quarter of 2021."

"There have been a lot of changes since 2008 which helped the market cope with the immediate crisis. However, there remain operational challenges which make it hard to cope with large volumes and margin calls and the industry needs to focus on that."

Not least, he says, is the different settlement times for margin calls and repo transactions, which results in banks having to carry risk between the settlements.

He continues, "For the buy side, any cash on their balance sheet is not invested and therefore not giving them returns. Connecting these markets and timing of settlement and settlement processes would go a long way to bringing these liquidity pools together."

As more of the buy side start to clear and post margin on bilateral trades, the need for collateral optimization and use of the repo markets will increase.

Phil Simons, Global Head of Sales, Fixed Income Derivatives Funding & Financing at Eurex, says: "The derivatives market is what drives the need for either cash or securities to post as margin. The source of that cash is more often than not the repo or securities lending market."

"The connectivity between the derivatives market and the financing market is key. It needs to be liquid and easy to transform. The problem is that it is balance sheet intensive for a bank to intermediate, so we need to get the buy side into the cleared repo world and clearing their derivatives."

Simons says the ability to use securities for intra-day variation margin, as you can at Eurex Clearing, is crucial to managing the impact on the buy side of the transition to a cleared world.

"Eurex accepts 12,000 instruments as collateral, so firms can use what they own to collateralize their positions. If everyone wants HQLA as collateral, then the cost to source that goes up," he says.

"While there are haircuts on equities posted as collateral, many asset managers are natural holders of equities and for them, it is much lower cost to use these securities rather than doing a transformation that will cost money."

Eurex accepts 12,000 instruments as collateral, so firms can use what they own to collateralize their positions.

Libor: What comes after the CCP discounting switch?

Last year's CCP discounting switch marked a major milestone in the move away from Libor to new risk-free rates (RFR), but as the industry approaches the December 2021 deadline for the cessation of Libor, many challenges remain.

The discounting switch transitioned the rate used to calculate the price alignment interest (PAI) at a CCP from a Libor-based OIS rate to one based on the RFR introduced in that jurisdiction.

Eurex completed the switch from EONIA to €STR on 27 July 2020. CME and LCH completed their respective transitions in October last year.

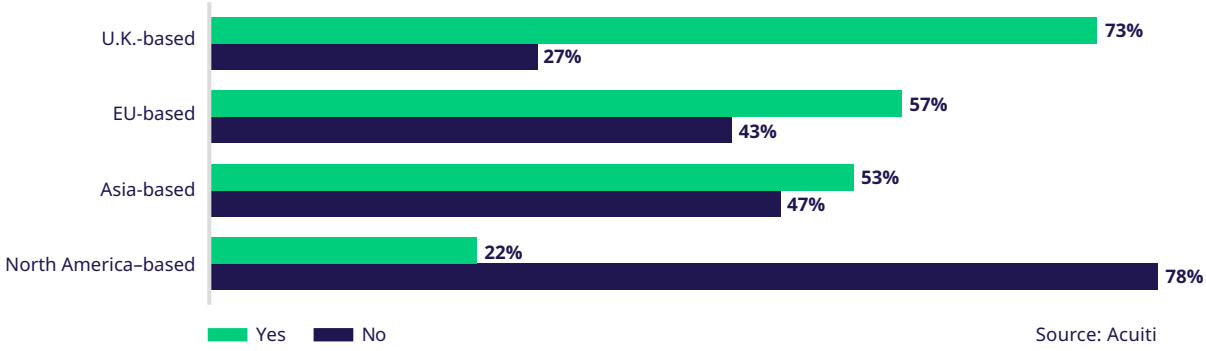
Clement Cordier, Head of Derivatives Clearing Services, Continental Europe at HSBC, says: "The CCP discounting switch was a relatively successful process last year, which provided some guidance and lessons to the clearing industry as to how it will be able to continue the transition from Libor."

"Considering the industry managed such a significant transition during a year impacted by COVID was a major achievement. It was done in a coordinated manner across the major CCPs in Europe, using a similar process and a clear timeline. We had the tools to provide full visibility on what this meant for client portfolios and were able to prepare our customers for that switch."

However, there is still a long way to go if the EU and U.K. are to successfully transition away from Libor by the end of 2021 (the United States has extended its transition to 2023). What comes after the discounting switch is inherently more complex.

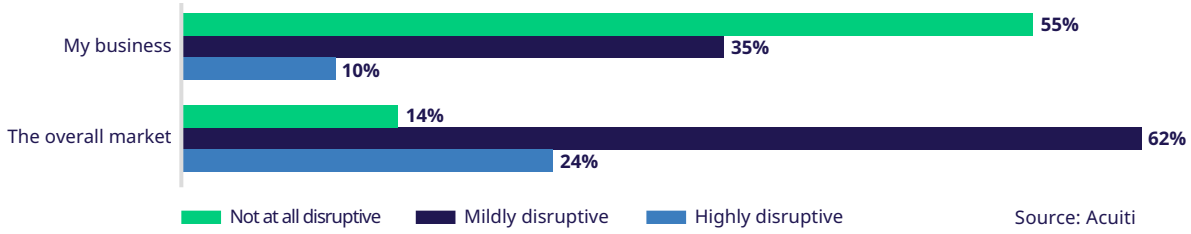
On 5 March, the Bank of England and the FCA made the long-anticipated pre-cessation announcement, confirming the future cessation of the Swiss franc, sterling, yen, euro, and all but two dollar Libor benchmark settings at the end of December 2021.

Do you think that your local jurisdiction will complete the transition away from Libor at the end of 2021?



Source: Acuiti

Were Libor to end at the end of 2021, what impact would that have on:



The Acuiti survey found that almost half of the respondents based in the EU did not predict a transition away from Libor by the end of the year, compared with under a third of U.K.-based respondents.

There remains concern in the market about the impact the end of Libor would have, although most respondents believe a transition would not be disruptive for their business. This suggests that most are well advanced in their preparations.

One significant challenge that remains is the pick-up in liquidity of derivatives using an RFR. While liquidity in SONIA derivatives is established, there is further to go in other currencies.

Cordier says, "The main question now is when will we see further growth of liquidity in RFR derivatives with regards to euro, dollar, Swiss franc and yen. Many thought the CCP discounting switch would be that trigger but, although liquidity has grown since then, it has perhaps not done so to expected levels."

"It is too early to see the full impact of the Libor pre-cessation announcement, but regulatory actions such as this should lead to further adoption by firms of the new RFRs."

Stephan Blanke, Head of Derivatives at KfW, says that, while building liquidity in listed products is one of the biggest challenges for the market, there are additional complexities in other products.

"There is currently liquidity in plain vanilla IRS, but it much less visible in cross currency swaps. There is still uncertainty as to what currency pairs will be traded. Our counterparties say that they can offer what we want in this respect, but we need to know the pricing in the various pairs and understand how that will evolve."

Blanke questions whether firms will be willing to pay a higher price to drive liquidity in the swaps tied to the new rates, so the market will look to the dealers to price competitively to smooth the transition.

"While building liquidity in listed products is one of the biggest challenges for the market, there are additional complexities in other products.

Stephan Blanke
Head of Derivatives, KfW

The evolution of the role of market-making

Over the past five years, electronic liquidity providers (ELPs) have launched new services that provide liquidity and execution services directly to the buy-side, representing a significant shift in market-making and liquidity provision in derivatives markets.

Proprietary trading firms now compete with banks to service asset managers and other buy-side firms, execute their orders, and establish direct relationships with these firms.

This expansion of services by ELPs was prompted, in part, by the move away from market-making by several banks in the wake of the financial crisis and new capital rules, as well as by the natural evolution of firms that had invested heavily in their execution architecture.

ELPs seized the opportunity and developed more outward-facing operations to meet demand.

”For the buy side, the growth of ELPs in providing liquidity to derivatives markets is a healthy development as it broadens the ecosystem and introduces different business models. The more diversity, the more stable the system is,” says Eric Boess, Global Head of Trading at Allianz Global Investors.

However, the growth of ELPs complements rather than replaces the role of banks who retain a central role in liquidity provision and risk warehousing.

While ELPs can leverage their investments in latency and algorithmic trading to provide strong competition in the order book (and several banks have invested at similar levels to compete with ELPs), banks overall still provide a vital role in servicing clients for more complex trades.

“Banks have a vital role to play for any products that are not plain vanilla,” says Boess. “Anything that requires complexity or significant balance sheets will still be serviced by banks.”

This business generally comes with higher margins, and that has not gone unnoticed by ELPs who are increasingly seeking to expand their offering in off-book markets.

> **“For the buy side, the growth of ELPs in providing liquidity to derivatives markets is a healthy development as it broadens the ecosystem and introduces different business models. The more diversity, the more stable the system is.**

Eric Boess
Global Head of Trading, Allianz Global Investors

Section 4
Technology & innovation

4

This section addresses two major themes in derivatives markets today, technology and innovation, through the prism of the foreign exchange (FX) markets and distributed ledger technology (DLT). Both FX markets and distributed ledger technology have the potential to revolutionize listed derivatives markets in vastly different ways.

The FX market's shift into a centrally cleared, exchange-traded environment in Europe appears on the cusp of acceleration. Regulatory change in the form of uncleared margin rules (UMR) and innovation through electronic trading drives the transformation.

While FX is largely out of scope for clearing, several factors could drive the buy side to choose to centrally clear. Non-deliverable forwards (NDFs) will go first, an existing trend that will be accelerated through Phases 5 and 6 of the UMR. Other instruments should follow as more firms connect to the clearing infrastructure and seek to reduce over-the-counter (OTC) exposures.

Liquidity in listed instruments will also continue to increase, and product development in this area will expand optionality for firms looking to execute FX trades. Flex functionality already offers greater customization, and if the expansion of the UMR significantly alters the economics of OTC trading, more firms will adopt listed alternatives.

However, the listed world will evolve alongside the OTC market rather than replace it. The dominance of CLS Bank and the depth, complexity, and customizability of the OTC FX markets temper expectations of anything other than a partial shift toward a cleared and exchange-traded world. This report predicts the evolution of a hybrid market, which considering the size of the FX market, would still bring significant volume and opportunity to the listed world.

One technology that could ultimately revolutionize not just FX but capital markets in their entirety is DLT or the blockchain. While DLT was once discounted as a fad, real-world projects are being developed and launched that hint at its potential.

DLT has the potential to revolutionize how securities are issued, traded and settled. But its evolution will be slow and will happen alongside existing infrastructure. However, the technology has the potential to meet or even exceed early expectations.

FX at the heart of innovation in the post-UMR world

Foreign exchange (FX) clearing and the over-the-counter (OTC) market's transition onto listed markets has long been the holy grail for European exchanges, coveted and eagerly anticipated but elusive and unattainable in reality. As the uncleared margin rules (UMR) near their final implementation, banks shift toward the Standardized Approach to Counterparty Credit Risk (SA-CCR) calculations, and the market continues to advance into electronic trading. However, could the market finally be on the cusp of significant growth in clearing and listed execution?

When the list of instruments subject to initial margin requirements in the UMR excluded FX swaps, deliverable forwards, and the FX component of cross-currency swaps, many in the market predicted the demise of the dream of a transition of large swathes of the FX business into a cleared and exchange-traded environment.

A move toward a cleared environment would require firms to post initial margin. Without a regulatory mandate to do so or to centrally clear, however, it seemed unlikely that a sufficient number of firms would deem such actions economically advantageous.

According to Jens Quiram, Global Head of FX Derivatives at Eurex, though, buy-side institutions are expressing growing interest in clearing OTC instruments and trading listed FX. He says, "Although there is no clearing mandate (for most of the FX market), we are seeing a significant increase in interest from the buy side in listed futures and options and clearing cross-currency swaps portfolios."

Numerous factors impel the buy side to increase clearing of FX instruments. Most notable is the fact that while the UMR excluded much of the FX market from initial margin requirements, uncleared deliverable forwards, FX swaps, and currency swaps continue to count toward a firm's aggregate average notional amount (AANA), which is used to calculate when that firm becomes subject to UMR.

As Phases 5 and 6 take effect in September 2021 and 2022, respectively, covering firms with USD 50 bn of notional uncleared derivatives exposure and USD 8 bn, clearinghouses are preparing their services to accommodate anticipated growth in the clearing of both mandated and non-mandated instruments.

> **"Although there is no clearing mandate (for most of the FX market), we are seeing a significant increase in interest from the buy side in listed futures and options and clearing cross-currency swaps portfolios.**

Jens Quiram
Global Head of FX Derivatives, Eurex

The clearing of NDFs and, to a lesser extent, FX options have already exhibited considerable growth. According to Commodities Futures Trading Commission (CFTC) data for the U.S. market, over a third of USD notional non-deliverable forwards (NDFs) are currently cleared, compared to just 0.1% of swaps and forwards, 0.05% of options, and 0.5% of cross-currency swaps.

Quiram says, "NDFs are fully covered by UMR, and we have seen a large rise in clearing for the dealer business that came into scope in the first phases. I am sure that the client business in NDFs will follow in Phase 5 and, in particular, Phase 6."

A key question – in addition to the impact of firms looking to reduce their AANA by clearing – is whether, as more clients connect to CCPs and begin to clear other instruments, the economics of clearing vs. trading bilaterally in non-mandated instruments will change sufficiently to incentivize firms to clear them as well.

André Besant, Head of Foreign Exchange D/A/CH at Deutsche Bank, says that to understand the impediments to clearing in FX, one must examine why that market has not yet taken off.

"Is the lack of adoption so far down to education; is it the bottom-line price that is causing the hesitancy to move away from the bilateral world? Or is it other effects, like sticking to the current model because it is stable and resilient and embedded in workflows?" he asks.

"I think it is a combination of factors. Together with more regulatory constraints and rules, more firms will start to think about alternatives."

The findings of the Acuiti survey support Besant's predictions. Of asset and hedge fund managers with FX portfolios, only 10% said they were not planning to clear FX options or NDFs, while 40% said they were simply not ready to do so yet.

Another factor coming into play is SA-CCR, a new model for measuring counterparty risk, impacting both RWA and leverage ratio calculations. By significantly reducing the capital costs for banks in cleared trades, the adoption of SA-CCR has the potential to greatly increase the economic incentive to clear in the interbank market. However, the full implications of SA-CCR are currently uncertain, and the impact on clients will be highly dependent on their portfolios.

Others argue that the current complexity of the FX market already provides a strong incentive to clear. Currently, buy-side firms have bilateral relationships with multiple prime brokers. With each of these counterparties, firms must maintain credit lines and multiple credit support annexes (CSAs).

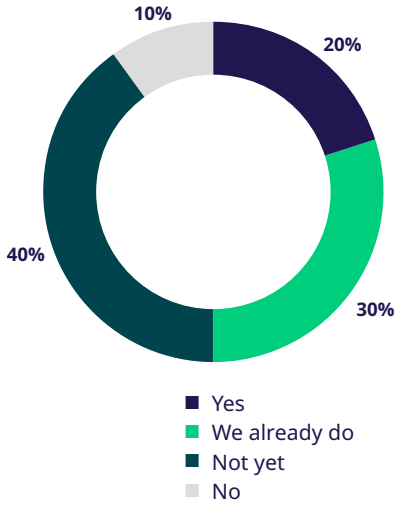
Central clearing offers the ability to reduce the number of counterparties – to one covered by a single legal agreement. According to advocates of the cleared and listed world, it is precisely this opportunity to relieve an operational burden that could ultimately change attitudes.

"Either the market will become more listed, or we will start to see more clearing, or both. The status quo in which a buy-side firm has to have multiple lines with multiple banks is not the future of FX," says Robbert Sijbrandij, Head of FX at Flow Traders.

"There is currently a suboptimal environment for large firms with FX exposures; it would be much simpler for them to operate in a cleared environment," says Sijbrandij.

Despite its size and complexity, the FX market nevertheless functions extremely effectively. One major hurdle that listed markets have struggled to address is the centrality of CLS in the settlement process and its connectivity

Are you planning on clearing FX options or NDFs?



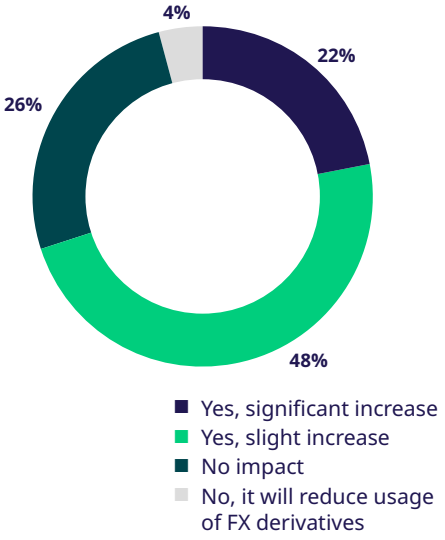
Source: Acuiti

to central banks to settle trades. It is this obstacle that has prevented attempts to developed listed alternatives to physically settled FX instruments.

As the UMR requires more firms to clear NDFs and more firms adopt central clearing for FX, observers anticipate the greater adoption of listed futures and options. Eurex has already seen significant growth in its FX futures, with over 600,000 trades in 2020, up from 100,000 in 2019, and this trend is likely to accelerate with the growth of electronic trading and the expansion of the UMR.

The Acuiti survey further supports this trend, with 70% of respondents anticipating that the UMR will increase usage of listed FX derivatives and 22% of those respondents predicting that the increase will be significant.

Do you think that the UMR will increase usage of listed FX derivatives?



Source: Acuiti

The entry of electronic liquidity providers (ELPs), such as Flow Traders, Citadel, and XTX, into FX markets over the past decade has significantly changed the landscape for liquidity provision and accelerated growth in the markets' electronification.

Flow Traders' Sijbrandij forecasts a greater role for ELPs in FX markets going forward. "For a second or third tier bank, it no longer makes sense to run a full FX franchise when they can plug into an ELP's aggregator and execute trades through them.

"You can trade so close to the mid-point now, and margins are so thin, that you have to have significant scale to be able to justify the cost of an FX franchise. The banks have the credit, balance sheet, and service, but in terms of the ability to execute and manage risk, only the top banks can justify the investment in technology and the red tape required to be in the market," he says.

While the electronic and listed markets will perhaps never be able to fully replicate the complexity and specificity of OTC markets, Quiram expects that the impact of the UMR and the growth of electronic trading will facilitate a hybrid evolution.

"Listed FX options in combination with flex contract functionality will provide an excellent alternative to the OTC options market," he says.

"Ultimately, we will likely see a hybrid market in which firms will operate the listed world alongside the OTC market. Longer-dated instruments will be better placed in a CCP, but shorter-dated trades will be better suited to the uncleared world under the current regulatory infrastructure.

"I think that both the cleared world and the listed world will continue to grow. FX is a huge market, and it is certainly big enough for a hybrid model to evolve."

DLT continues to gain traction across capital markets

While bitcoin is attracting all the headlines for its seemingly unstoppable advance, a quieter revolution is underway across capital markets using the distributed ledger technology (DLT) on which cryptocurrency is based.

Blockchain technology entered the industry zeitgeist in the mid-to late-2010s but was soon discounted as an overhyped fad. Quietly, however, the market has been developing and testing DLT-based concepts and the early indications suggest a potential even greater than the initial hype.

The Acuiti survey found that 52% of banks have a DLT-based project either up and running (11%) or in progress (41%). Of those that did not, 22% were planning to develop one soon. However, no brokers or non-bank futures commission merchants (FCMs) had a live project or one in development, and just 17% planned to commence one.

This suggests that a technological divide may appear or that brokers and non-bank FCMs might outsource any processes based on DLT to third-party vendors.

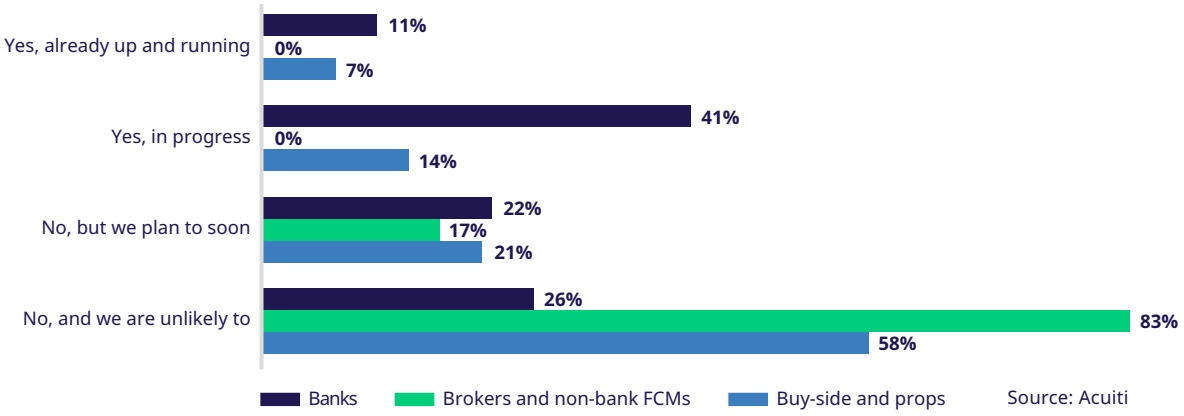
The majority of the projects that banks had already or were developing involved post-trade and margin and collateral payments. However, several firms also reported projects in the front office, as well as some in reporting and even risk management and compliance.

Outside cryptocurrencies, the potential for DLT in capital markets comes in the form of digital securities settled into a blockchain. This process of "tokenization" offers the potential for securities to be issued, processed, and settled into one immutable ledger, eradicating any manual process and the movement of securities into different environments during the trade cycle.

Thomas Triebel, Senior Manager of Business Development International at MEAG, is a pioneer in the development of digital securities.

MEAG launched its first experiment with DLT in 2017 when it traded a Euro Commercial Paper issued by KfW with Commerzbank. Because of German law at that time, this early initiative was a simulation run parallel to the trade's physical settlement.

Do you currently have an internal project to run any processes on a blockchain?



Source: Acuiti

The following year, MEAG and LBBW/Weinberg went further, issuing, as a legally binding trade under Irish law, an asset-backed commercial paper as a dematerialized native token purchased and settled on the R3 blockchain.

This was followed in 2019 by a legally binding secondary market transaction between Commerzbank and MEAG, which tokenized both the security and the cash payment being tokenized and then placing the tokenized cash at Eurex Clearing as collateral. To leverage the benefits of the first pilot with LBBW, the application was operationalized in 2020.

Triebel describes both trades as a "great step forward" for the creation of a market infrastructure for digital securities.

"The main hurdles so far have been on the legislation side. However, across Europe, legislation is moving forward, and a regulatory framework around trading digital securities is emerging," he says. "This will speed up acceptance, and I think that once the legislation is established, asset classes, like commercial paper or the like, will be the first to transition."

"Currently, acceptance of the technology is generally accelerating, and a lot of new applications are being evaluated in the financial industry. In the future, DLT will not only be used for trading traditional securities. We envisage options beyond traditional financial markets, such as debt capital products for investments in asset classes of real estate or infrastructure, renewable energies, and others."

For Benjamin Duve, Head of Digital Assets & Custody at Commerzbank, the ultimate end goal is the shift of the entire infrastructure around securities processing to be moved onto DLT.

"For several years there have been different use cases that have applied DLT to processes like issuance and settlement. To date, however, initiatives have been launched alongside the old processes. You therefore have to bridge between the new world and the old," he says.

For Duve, the holy grail is the processing of native tokens across the full trade life-cycle on DLT.

"If you have the discussion on which part of the market is best to address, you might improve efficiency in one area but you have not addressed the fundamental inefficiency. The market needs to invest in the long term and create a common standard to optimize the whole solution from issuance to custody. This should be a cross-market initiative to produce an industry-wide solution to maximize efficiency," he says.

Many questions remain, including how many chains there will ultimately be and who will operate them, how any transition will work in practice, how complex products can be transitioned, and what impact any transition will have on the role of companies in the market today.

Both Duve and Triebel predict a lengthy transition in which the infrastructure is constructed alongside current processes. However, as the concept develops, new opportunities will be created to increase efficiency and change how the market operates.

DLT will almost certainly be the lasting legacy of bitcoin and far outlive the more famous creation of Satoshi Nakamoto.

> **"The ultimate end goal is the shift of the entire infrastructure around securities processing to be moved onto DLT.**

Benjamin Duve
Head of Digital Assets & Custody, Commerzbank

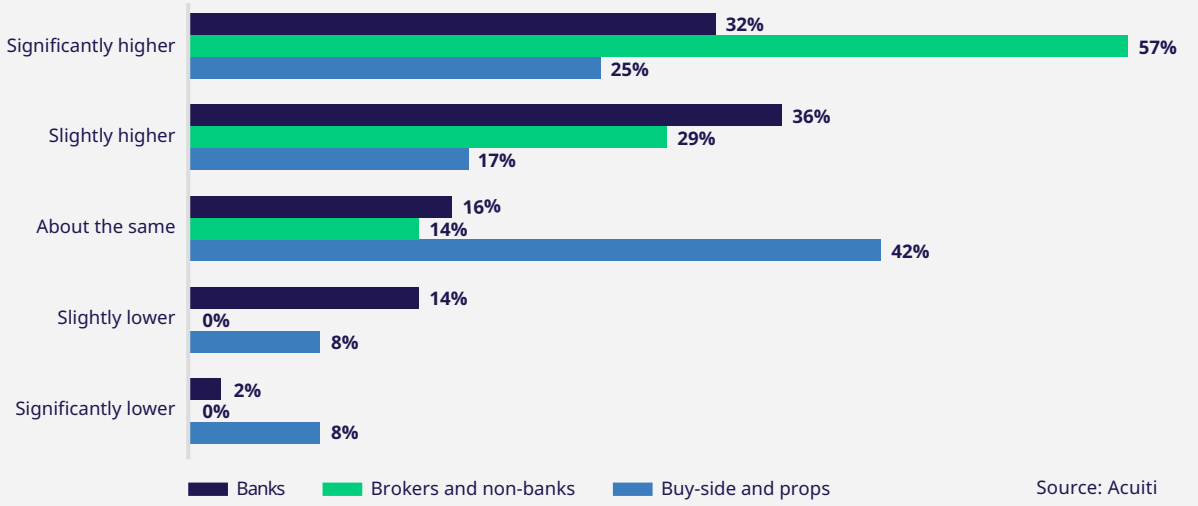
Sell side plans major investment in innovation

The Acuiti survey found plans for banks, brokers, and non-bank FCMs to increase investment in technology and innovation over the next three years.

Fifty-seven percent of brokers and non-banks said that their investment budgets would be significantly higher, while 68% of banks predicted an increase.

Investment intentions at buy side and proprietary trading firms were more muted, although a quarter predicted a significant increase, predominantly driven by asset managers.

Compared with the past three years, how do you expect your budget for technology and innovation to change over the next three?



Source: Acuiti

When it came to investment intentions, post-trade processing was, by far, the dominant area of investment for the sell side, although trading and cybersecurity also featured prominently.

Investment for the buy side and proprietary trading firms tended to focus on cybersecurity and trading; however, many were also planning to invest in compliance.

Section 5
Responsible investing

Environmental, social, and corporate governance (ESG)-based investing has exploded over the past decade and represents one of the fastest growing trends across capital markets globally. As assets under management (AUM) have grown, so too have the tools and instruments that asset managers can employ to manage ESG exposures and hedge risk.

As ESG continues to expand beyond its launchpad in equities and permeate all aspects of capital markets, a full ecosystem will develop.

The application of ESG in diverse areas shares uniform challenges in terms of definitions, standardization, and differing approaches. In addition, each application entails unique challenges specific to that function or asset class.

New EU rules in the form of the Taxonomy Regulation and the Sustainable Finance Disclosure Regulation (SFDR), which are taking effect this year, seek to enhance common standards and transparency across the ESG spectrum.

5

Industry matures to meet growing demand for ESG investing

Environmental, social, and corporate governance (ESG) investing has long been embedded in equity markets. However, the approach is gaining significant traction in fixed income markets with the unstoppable rise of sustainable bond issuance and asset managers' increasing desire to apply ESG to their credit portfolios. As the market grows, an institutional ecosystem is being constructed to support it, solving some of the challenges investors face today.

According to Moody's, sustainable bond issuance reached record volumes of USD 491 bn (EUR 411 bn) last year. That number is expected to exceed USD 650 bn (EUR 545 bn) this year, comprising USD 375 bn (EUR 314 bn) of green bonds, USD 150 bn (EUR 125 bn) of social bonds, and USD 125 bn (EUR 104 bn) of sustainability bonds.

BloombergNEF estimates that the total sustainable debt market exceeded USD 730 bn (EUR 618 bn) last year, an increase of 29% from 2019. Other estimates put the total market size as high as USD 1 tr.

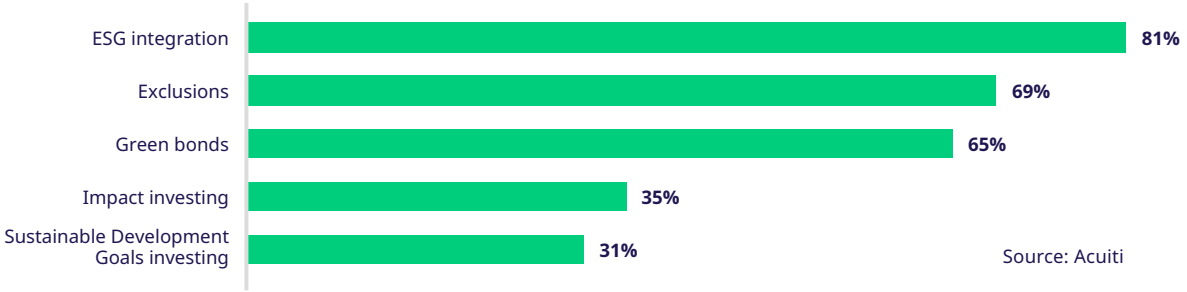
Governments worldwide are ramping up issuance programs, with the U.K. planning to sell GBP 15 bn (EUR 17.5) of green bonds this calendar year in two "green gilt" issuances. Meanwhile, the EUR 750bn Next Generation EU recovery fund has earmarked 30% for green investments.

Corporations are also issuing green bonds and other instruments tied to specific sustainability projects. In addition, a vibrant market is developing for sustainability-linked bonds issued with coupons linked to specific key performance indicators (KPIs) around ESG targets. These instruments provide corporations with more flexibility in the use and disclosure of issuances than sustainable bond issuances while also enabling them to attract investment from credit investors with ESG mandates.

Investors are increasingly integrating ESG strategies into portfolio selection with similar exclusions or best-in-class strategies that mirror their approach to more established asset classes. In doing so, they join pioneers such as Kames Capital, now part of Aegon Asset Management, which has long applied ESG to credit investment.

A survey by Acuiti commissioned by Eurex last year found a broad mix of approaches among asset managers to ESG investing in fixed income, with ESG integration topping the list, followed by exclusions and green bond strategies.

What type of ESG strategies does your organization implement in fixed income?



"ETFs and ETF derivatives began as pure OTC instruments. An electronic market has developed and it did so alongside the OTC" says Lee Bartholomew, Head of Fixed Income and Foreign Exchange Product Development at Eurex. "This mix contributed to a healthy ecosystem with strong liquidity."

"Within Europe, it was important for the ETFs derivatives markets to have lit markets to create transparency, which allows pockets of the value chain such as securities lending to develop. When you are looking at ESG, it is not a case that one instrument or approach is better than others but critical to create a portfolio of products that builds a complimentary ecosystem that will better facilitate trading strategies and mitigate risk in things like portfolio strategies."

Currently, the amount of trading in ESG derivative products for fixed income is limited, as investors predominantly execute portfolio trades. This is likely to remain the dominant trend until portfolios become "ESG enough" to accommodate all inflows into the asset class, says Abel Elizalde, Global Head of the Credit Market Strats Team at Goldman Sachs.

"Once that process is complete, the focus will become less about portfolio construction and more about directionality, managing views, inflows, [and] outflows. That will lead to greater use of ETFs, futures, and other directional products to manage risks," he predicts.

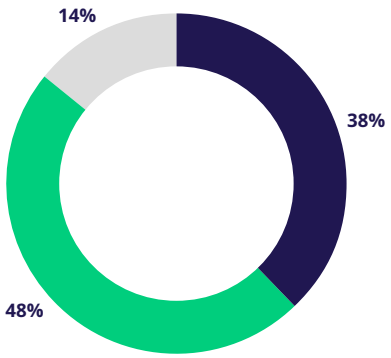
Dennis Hänsel, Global Head of ESG Advisory at DWS, says: "Clients are increasingly asking us to integrate ESG into fixed income and the market is developing very quickly. Previously, we had typical portfolio products based on exclusion and now we are observing a trend to multi-dimensional ESG approaches with best-in-class approaches for all investments. However, we are increasingly looking to use ETFs and derivatives to provide greater flexibility to our ESG portfolios/solutions in terms of risk management and alpha."

"For new products, we have a clear ESG default position. So, all new products we trade must incorporate ESG factors. We need the derivatives for risk management and then we can start to offer flexible and bespoke solutions where we manage market risk and in- and outflows with derivatives without changing the underlying ESG investments as we currently do very efficiently on the equities side."

Research by Acuiti last year found strong demand from asset managers for the product and indications of a natural two-way market with different firms planning to use listed futures on bond indices to hedge exposures in the ESG fixed income market and to increase exposure to select ESG fixed income market segments.

Among the respondents from the top 50 European asset managers by AUM, 38% said they would use the future to hedge exposure. In contrast, 48% would use it to increase their exposure and 14% would predominantly use it to comply with an ESG mandate.

What would be the main purpose for using a listed future on a bond index?



- Hedge exposure to ESG FI market
- Increase the exposure to select ESG FI market segments
- Comply with the internal ESG mandate

Source: Acuiti

Elizalde identifies four factors that will drive buy-side involvement in the market. "Firstly, there is the appeal of the product, which, in ESG, is clear," he says. "Second, is how the products are priced and whether there is upside from doing so. Then, there is the question of how big the market is in terms of AUM. Finally, there is liquidity and how easily investors can hedge, move risk, and execute overlays."

"We have gone through the first three phases, and now we have to build liquidity and show investors that there are enough derivative alternatives to manage risk effectively. That is the biggest challenge for ESG in fixed income today."

Launching any new futures product is a challenge. Doing so on an ESG-benchmark in a market with no deep, existing listed liquidity pools will be an even greater one. Still, Hänsel says that if the market comes together to trade the products, it will create a new opportunity for asset managers and their clients.

"In 2020, ESG futures in equities became liquid enough for us to use them to handle market risk," he says. "When we see the same liquidity and standardization on the listed side in fixed income, I strongly believe that our clients will use them."

"They are looking for more innovative ESG products and investments, and we must show them that it is possible to get all the exposure they need to meet their sustainability targets."

"ETFs and ETF derivatives began as pure OTC instruments. An electronic market has developed and it did so alongside the OTC. This mix contributed to a healthy ecosystem with strong liquidity.

Lee Bartholomew
Head of Fixed Income and Foreign Exchange Product Development, Eurex

"Currently, the amount of trading in ESG derivative products for fixed income is limited, as investors predominantly execute portfolio trades. This is likely to remain the dominant trend until portfolios become 'ESG enough' to accommodate all inflows into the asset class.

Abel Elizalde
Global Head of the Credit Market StratsTeam, Goldman Sachs

Navigating the "ESG zoo"

Over the past decade, the exponential growth of ESG has created risks of greenwashing and confusion over approaches and definitions that risk undermining the movement, warns Kari Vatanen, Chief Investment Officer at Finnish pension fund Veritas.

Investment has poured into ESG funds and assets at an unprecedented rate over the past decade, with estimates of the total market size reaching USD 40 trillion. Despite the booming demand for ESG, standards, definitions, and approaches remain fragmented.

"There is a big risk that following all the current market trends will result in greenwashing. Currently, we are living in the 'ESG zoo', with too many and sometimes even contradictory objectives," says Vatanen.

He offers the example of the 17 UN Sustainable Development Goals, which form the basis of many approaches to the market.

"The goal of achieving environmental development goals might have negative implications for social development goals. For example, solar panels, which are beneficial for the environment, have components that come from China where there are lower labor standards," he says.

Vatanen recommends that investors looking to grow their ESG offerings focus on specific goals first and integrate components incrementally into their portfolios rather than trying to do everything at once.

He explains that Veritas began with an environmental focus that sought to reduce its investments' carbon intensity and says that the company will continue to integrate ESG factors in a deliberate and considered manner.

Another issue that Vatanen sees in the market is the broad assumption that ESG investing will inevitably generate alpha.

While several studies have shown positive returns from ESG-based investment, the track record – both in terms of past performance and the longer-term impact of the current wave of ESG investment – is not sufficient to fully understand ESG's impact on alpha.

"I haven't seen that alpha yet. It is early days, of course, but right now, the whole ESG movement is based on faith," warns Vatanen.

> **"Veritas began with an environmental focus that sought to reduce its investments' carbon intensity. The company will continue to integrate ESG factors in a deliberate and considered manner.**

Kari Vatanen
Chief Investment Officer, Finnish pension fund Veritas

ESG in securities finance

Environmental, social, and corporate governance (ESG) is permeating all aspects of capital markets, and the securities finance market is no exception. While it remains a relatively immature area of the ESG spectrum, securities finance executives are launching new products and developing new concepts to meet demand.

Applying ESG considerations to securities finance raises some unique questions and shares some of the same challenges seen in other market segments.

Asset managers, of course, establish the rules for the investments in their portfolios and will only buy securities and assets that meet their requirements. However, when it comes to securities finance, should investors apply their ESG principles to what they receive as collateral?

This question was brought to the fore by Greenpeace, which, in March this year, landed a paraglider on the European Central Bank (ECB) building in Frankfurt as part of a protest against the ECB's acceptance of bonds as collateral, which it said was "funding climate killers".

Asset managers with ESG mandates across their investment portfolios are increasingly looking at how to integrate those same principles into the collateral they receive in securities lending and repo programs.

This approach adds a layer of complexity for collateral and triparty agents, who must develop ESG-compliant collateral schedules for clients that reflect the differing ESG approaches of each recipient of collateral.

The most significant challenge is to manage and implement ESG collateral schedules. While some recipients might maintain a negative list and only accept collateral that is not on that list, others might utilize a positive list of equity indices with an ESG screening trigger.

The Eurex Green Bond Basket and other initiatives represent at least partial solutions to this complexity. Still, ultimately, each counterparty will need to have the licenses for the indices to know what is in the collateral and be sure it meets their mandates.

Christian Schuetze, Head of Cross Asset Financing D/A/CH and Nordics at Societe Generale, says, "For collateral schedules, there are two approaches that are straightforward and are the predominant models today."

"One is using a negative list that has a defined collateral schedule of which names or sectors to exclude. The second approach uses either an established ESG index or one where a firm creates its own baskets."

"There are different hurdles for implementing each approach. If you select a specific index, it is easier to implement, but the hurdle is that if the collateral schedule is too narrow, the spread you receive may reduce."

"On the negative list approach, you are more flexible as you can just deduct the sectors or names you don't accept. However, it will require a more manual regular reset of the collateral schedule."

Asset managers welcome EU moves to increase transparency

The lack of standardization and transparency has been a long-standing issue for ESG investing. Two new sets of regulations taking effect across the EU seek to address this.

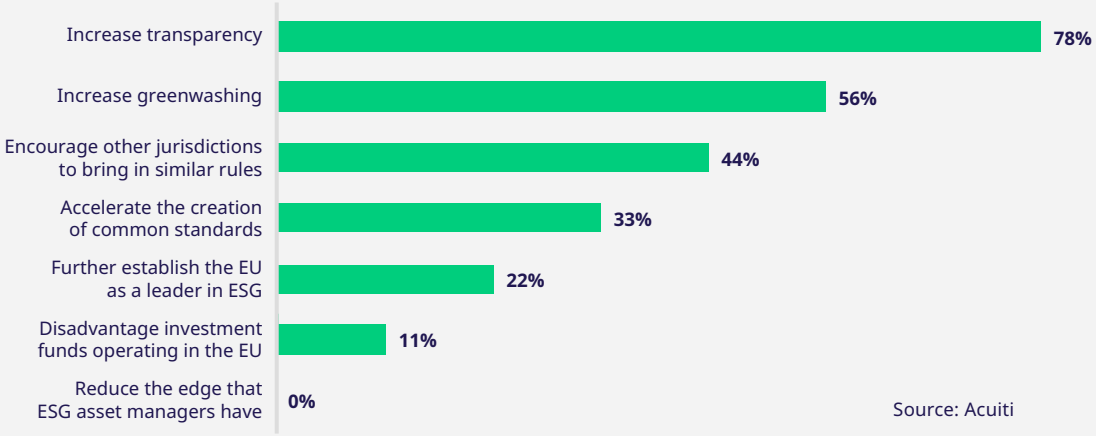
The EU Sustainable Finance Disclosure Regulation (SFDR), which entered into force on 19 December 2019, and was applied from 10 March 2021, requires financial market participants and financial advisers to provide clients with specific ESG-related information about their business and operations.

The EU Taxonomy Regulation sets out an EU-wide framework to standardize the market's definitions, approaches, and understanding of what is "sustainable." Focused exclusively on the environmental impact, the Taxonomy Regulation is based upon four key tests and six environmental objectives.

The Acuiti survey for this report found that asset managers generally welcomed both sets of regulations. Still, more than half of respondents feared that the SFDR would increase greenwashing, a surprising finding considering that the rules were explicitly designed to reduce the practice.

Seventy-eight percent thought that the SFDR would increase transparency, while just under half felt that it would encourage other jurisdictions to impose similar rules.

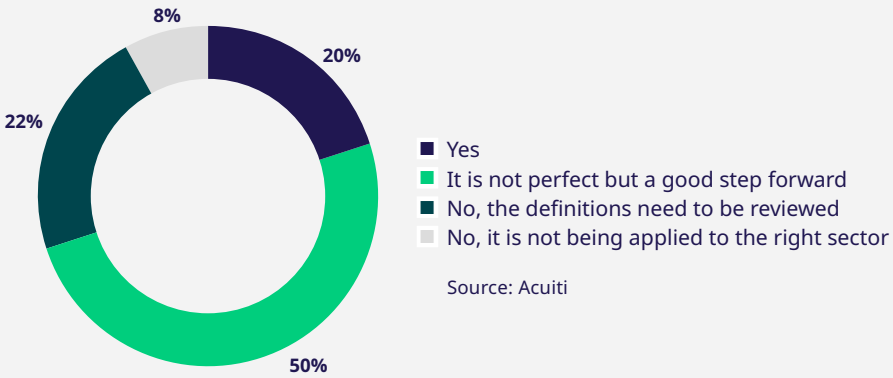
What impact will the EU Disclosure Regulation have on ESG investing?



Half of the asset managers specializing in ESG investing described the Taxonomy regulation as "not perfect but a good step forward", while 22% thought the definitions needed to be reviewed, and 8% asserted that the regulation was being applied in the wrong area.

Elsewhere in the survey, 80% of ESG asset management respondents thought that ESG rating agencies in the EU should be regulated against commonly agreed-upon standards.

Do you think that the EU has adopted the right approach with the EU Taxonomy Regulation?



Source: Acuiti

EU ETS looks to the future as it enters Phase 4

Phase 4 of the EU Emissions Trading Scheme (ETS) took effect on 1 January 2021. With carbon prices up 60% over the past six months, many are finally hailing the scheme as an emission reduction model.

The early phases of the ETS were plagued by oversupply issues with a glut of carbon credits circulating and thereby depressing the price and undermining the market.

However, the introduction at the beginning of 2019 of the Market Stability Reserve (MSR), effectively a central bank for carbon credits, has reduced oversupply and stabilized prices. "Overall, we have seen the carbon market becoming much more effective since the introduction of the MSR," says Farah Abi Morshed, Innovation Manager at ABN AMRO Clearing.

As the EU embarks upon its program to reduce carbon emissions by 55% from their 1990 levels by 2030, Abi Morshed believes that the EU ETS will play a vital role.

"This ambitious target will result in a reduction in the cap of emissions being produced on an annual basis, and fewer sectors will receive free emission rights. In addition, the scheme will likely be extended to other sectors, such as construction and water transportation," she says.

The election of Joe Biden in the U.S. also provides a fillip for carbon trading schemes. Under President Biden, the U.S. has rejoined the Paris Agreement and has promised to pursue an ambitious environmental agenda.

"With the U.S. rejoining the Paris Agreement, more than 50% of global greenhouse emissions have a net-zero carbon target by 2050," says Abi Morshed.

"Other initiatives, such as the Energy Certificate or Guarantees of Origin markets will, alongside the EU ETS, make a significant contribution to achieving the energy transition."

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