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Custody

Banks pledge to promote diversity in their ranks

SECURITIES FINANCE

BENEFICIAL OWNERS TAKE STOCK AFTER CHALLENGING START TO 2020

+ Derivatives

Cboe details European equity derivatives plans

SUSTAINED IMPAX

Chief Ian Simm reflects on two decades leading sustainable investing

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Impax for more than 20 years

While many of Europe's fund managers are trying to demonstrate their environmental, social and governance credentials to tap increasing demand for these types of investments, Ian Simm, chief executive of Impax Asset Management, has little to prove (see page 10).

The London-based investment manager has been a pioneer in sustainable investments for over 20 years and continues to enjoy successes. The asset manager was awarded in April the Queen's Award for sustainable development for the second time, having first secured the accolade in 2014.

Impax also enjoyed in the first half of this year inflows of almost £1billion to take its assets under management to over £18bn,a record for the firm. The AIM-listed company's share price fell in line with the market in March as the COVID-19 pandemic escalated but bounced back by the end of May to its previous level at nearly £4.

The COVID-19 pandemic has exposed flaws in some ESG strategies however, principally that they are too narrow. Simm, who does not use the phrase ESG in reference to Impax, said the ESG framework is "clumsy and sub-optimal".

Simm said: "Pandemic risk is a good example. We are all experiencing it right now but it's not really environmental or social, it's more of a public health risk. You could say the same about cyber-risk – it's not really E, S or G but it is definitely a risk. If you are too blinkered or programmatic around interpreting ESG, you tend to have only three categories of analysis and can miss the point."

The Impax chief executive believes the pandemic has served as a timely reminder that there are other risks beyond the conventional financial risks faced by firms and those bound up in ESG.

"That is quite good for people who are thinking about the world in an ESG framework correctly because they are on the look-out for low probability risks and thinking about how they would deal with them but it's not very good for someone who is interpreting ESG rigidly because, depending on where they draw the boundaries, they will miss pandemics."

The other major theme of recent weeks has been the activism of the Black Lives Matter movement following the killing of George Floyd in late May. This may seem a far-removed from the gilded corridors of asset management but progressive firms like Impax are taking these messages seriously by working harder to promote diversity in workplace.

Simm said: "There is a yearning in the industry for investment managers to embrace more diverse sources of talent and to engage more with society. We are committed to doing that through our own diversity and inclusion practices but also our outreach to policymakers, charities and educational charity groups."

Similarly, some of the world's largest banking institutions are also working hard to encourage greater diversity in the work place.

Northern Trust and State Street should be commended for their efforts here (see page 20) while Dr Grace Lordan, an associate professor and economist at the London School of Economics and Political Science (LSE), makes an interesting point about the implementation of diversity and inclusion initiatives.

She says that firms must constantly appraise the success of their diversity initiatives and make changes where appropriate because this is an emerging and dynamic field of work. The interaction of different diversity and inclusion programmes is also something that needs to be watched.

Dr Lordan said: "This is important because there is emerging evidence to suggest that gender quotas may disadvantage non-white colleagues and also those from lower socio-economic backgrounds."

The effective delivery of initiatives to promote diversity and inclusion will not be straight-forward but firms cannot use that as an excuse for not trying. ■

Luke Jeffs,
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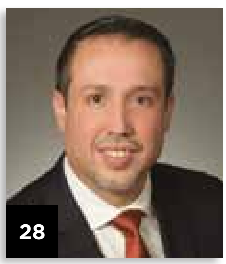
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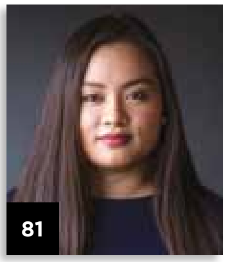
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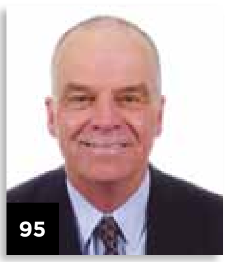
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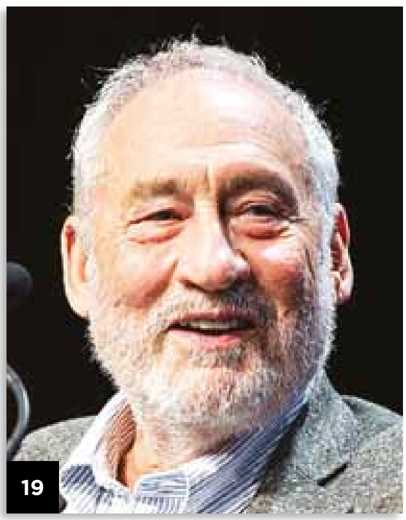
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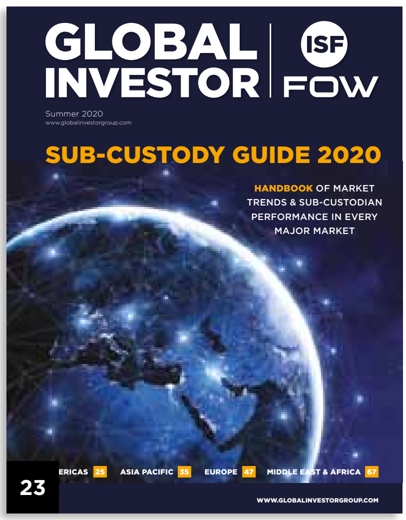
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Trading Places

Asset management, securities finance, custody and the derivatives industry saw more senior moves in the middle of 2020.

ASSET MANAGEMENT:

NN IP appoints ESG expert

NN Investment Partners (NN IP) has appointed Marina Iodice as senior portfolio manager of impact investing, the asset manager announced in a statement.

Based in firm's headquarters in the Hague, she will join the sustainable and impact equity team.

Iodice will work with Huub van der Riet, lead portfolio manager, Ivo Luiten, senior portfolio manager and NN IP's analyst team to manage its global impact equity strategy and its three thematic impact funds – health and wellbeing, smart connectivity and climate and environment.

She will report to Hendrik-Jan Boer, head of sustainable and impact investing. Iodice is replacing Willem Schramade who left the position in July 2019.

Aegon grows sustainability team

The Hague-headquartered Aegon Asset Management (Aegon) has grown its sustainability team by promoting Miranda Beacham, and appointing Retno Kusumaningtyas and Georgina Laird.

Based in Edinburgh, Beacham has been named senior responsible investment manager in the firm's responsible investment team after serving at Kames Capital since 1995 and co-founding its UK responsible investment team.

At the end of 2019, Kames Capital announced that in 2020, it will be fully integrated into its parent company Aegon and remove its current name to be rebranded as one international entity.

ODDO BHF names Middle East EVP

Paris-headquartered ODDO BHF Asset Management (ODDO BHF) has named Reza Yazdi as executive vice president for the Middle East.

The asset manager opened its Abu Dhabi office in 2006 which is regulated by the Central Bank of the UAE.

With Yazdi's newly created role, he will promote sales activities as ODDO BHF plans on expanding its services in the region.

He joined the asset management firm in November 2019 but his appointment is being announced now following the successful completion of a six month probation period.

CUSTODY:

BNY promotes Pearce to "accelerate" growth

BNY Mellon has promoted Daron Pearce to head of asset servicing strategic growth, the bank said in a statement.

Pearce has served at BNY for almost two decades, most recently as its head of asset servicing for Europe, the Middle East and Africa (Emea) where he led the sustained growth for the division in the region, while also improving its revenue and profitability, the bank said in its statement.

In his newly created role, he will identify and boost inorganic and new market entry opportunities.


DARON PEARCE

Still based in London, he reports to James Slater, global head of business solutions, and his responsibilities are global.

SG names sales head in Luxembourg

Societe Generale Securities Services (SGSS) has named Bryan Fage as head of sales and client relationship management in Luxembourg.

He will report locally to Mathieu Maurier, the country head for SGSS in Luxembourg and functionally, he will report to Gildas le Treut, global head of coverage for SGSS.

He joined the bank's sales team in 2017 where he served as a global sales executive for close to 3 years.

Prior to joining SGSS, Fage was at International Financial Data Services (IFDS) which is now part of DST Systems, for just under 5 years.

BNP names Americas sec services head

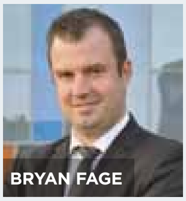
BNP Paribas Securities Services has named Dennis Bon as head of Americas, effective September 1.

Bon will continue driving the bank's services in North and Latin America, the French bank said in a statement.

Based in New York, he will report to Alessandro Gioffreda, head of territory management at BNP Paribas Securities Services.

Bon current serves as global head of depositary and fiduciary services for the bank from Paris.

Prior to joining BNP Paribas, he was at JP Morgan for 18 years, most recently as managing director, head of global custody - Americas, corporate and investment bank for three years in New York.


BRYAN FAGE


DENNIS BON


PHILIP MORGAN

SECURITIES FINANCE:

Morgan to take-over as Pirum CEO

Philip Morgan, current COO at Pirum, has been appointed chief executive of the post-trade fintech firm, replacing Rajen Sheth.

Sheth will remain on the company's board as president, a newly created role, and will continue to support Morgan and the rest of the management team.

Commenting on his appointment, Morgan said: "I am very excited to accept this opportunity and takeover the leadership of Pirum as we deliver the next phase of growth. It has been a pleasure supporting Raj throughout my time at Pirum and, given his mentorship through this period, the time is now right to make this transition."

JP Morgan prime MD Martin departs

Shane Martin, managing director of prime services at JP Morgan, has exited the bank, Global Investor understands.

The London-based executive joined JP Morgan in March 2019 and reported to Jonathan Cossey, co-global head of prime financing.

Global Investor reported that Martin was joining the New York-headquartered bank on February 28, 2019.

Prior to joining JP Morgan, Martin was a long-serving senior executive within Deutsche Bank's prime brokerage business, having joined the German bank in April 2002.

Oh departs EquiLend, Norwood steps up

Alvin Oh, EquiLend's former global head of trading products, has departed the business as Mike Norwood assumes the role, the fintech confirmed to Global Investor.

New York-based Oh, who served at EquiLend for nine years, has left the business to take on a position alongside Dow Veeranarong, who also worked for the fintech, at Axoni, Global Investor understands.

Veeranarong left EquiLend in February 2019, having served there for eleven years, and is now a director at New York-based Axoni.

DERIVATIVES:

Deutsche Boerse reshuffles senior management

Deutsche Boerse Group has moved its cash market businesses into its larger trading and clearing division under the leadership of Thomas Book who has stepped down as the head of Eurex to be replaced by his deputy.

The German group said Book has been named as chairman of the management board of the Frankfurt Stock Exchange after serving since 2016 as the chief executive of the group's derivatives exchange Eurex. Book will move to the company's supervisory board and continue as member of the management board of Eurex Deutschland.

Michael Peters, deputy chief executive of the group's derivatives exchange Eurex since February 2016, will succeed Book as the exchange's chief executive officer, the group said in a statement.


THOMAS BOOK

Marex Spectron hires North Americas chief

Marex Spectron has hired a former JP Morgan and Goldman Sachs managing director to run its North Americas business as the broker looks to expand in the world's largest financial market.

The London-based broker said it has hired Ram Vittal as chief executive officer of Marex Spectron North America. Vittal is based in New York and reports to Marex Spectron group chief executive Ian Lowitt.

Vittal will run Marex's various assets in the region including the Chicago-based Rosenthal Collins Group, which Marex acquired in February last year, and the firm's metals, energy and agricultural brokerage teams in New York, Houston, Connecticut and Calgary.

ISDA names CME's Hasenpusch to board

The International Swaps and Derivatives Association (ISDA) has appointed CME's Tina Hasenpusch and Mizuho's head of derivatives trading to its board of directors.

Hasenpusch is CME Group's managing director, global head of clearing house operations, and Taihei Okabe is managing director, head of derivatives trading with Mizuho Securities.

"As we deal with and absorb the lessons from the coronavirus outbreak, Tina and Okabe-san's input and insight will be extremely valuable in helping to ensure the derivatives market continues to be safe and efficient," the New York-based trade body's chairman Eric Litvack said in a statement. ■


TINA HASENPUSCH

Breaking stories from Global Investor Group

Here are some of the top stories you may have missed at GlobalInvestorGroup.com

ASSET MANAGEMENT:

Green bonds may reach $200 billion – AXA IM

The issuance of green bonds could set a record high at more than $200 billion (£155 billion) this year if central banks enter the market and start buying them as part of their stimulus programmes, according to AXA Investment Managers (AXA IM).

As of late July, $80 billion of green bonds have been issued by businesses to support the transition to a low carbon environment, said the asset manager.

Johann Ple, Fixed Income portfolio manager at AXA, commented: "If the European Central Bank (ECB) were to target green bonds, we would certainly see the sovereign issuance dynamic strengthen, given that many European governments would likely accelerate their plans to add this source of funding to their issuance programmes."

Sentiments towards China "diminishing" – Robeco

Rotterdam-headquartered Robeco has released a report stating that "investors' sentiment toward China is diminishing" as it looks for investment opportunities following the Covid-19 pandemic.

Robeco's report claimed that China is destined to become a core allocation despite its views not being shared by everyone.

Robeco added that a de-escalation in the US-China tension was unlikely leading up the US Presidential election later this year, but that the impact of such tension was diminishing investors' sentiments towards China as the pandemic has shown "China seems to be able to deal with everything it is thrown at".

BNP adjusts to Paris Aligned Benchmark

BNP Paribas Asset Management (BNPP AM) has changed the portfolio allocation of its BNP Paribas Easy Low Carbon 100 Europe UCITS exchange-traded fund (ETF) as its parent index's methodology has changed.

The move from the French bank comes after its parent, the Euronext Low Carbon 100 Europe index, aligned with the Paris Aligned Benchmark (PAB) climate index in July.

The European Commission has defined two new types of climate indices as part of its sustainable finance agenda.

CUSTODY:

RBC I&TS embarks on "digital" evolution

Royal Bank of Canada's Investor and Treasury Services (RBC I&TS) is on a digital journey that Francis Jackson, CEO of Investor Services, described as "the conversion from analogue to digital".

In an interview with Global Investor, Jackson said: "My view going forward is that the industry will be highly integrated and more interoperable. The industry has made great strides around core custody but it really has not tackled the issues around funds administration.

FRANCIS JACKSON

"For instance, imagine our approach to servicing clients was 50/50 people to technology, but going forward, that will transition to 80% technology, 20% serviced by experts," added Jackson.

SG, MFEX land joint mandate

Societe Generale Securities Services (SGSS) in Germany and MFEX Mutual Fund Exchange have won a joint mandate to provide brokerage, custody and trailer fee management services to the European Bank for Financial Services (ebase).

Frankfurt-based SGSS Germany and MFEX will provide its services for several thousand funds and they will process hundreds of thousands of fund trades every year, the French bank said.

Christian Wutz, head of coverage, marketing and solutions at SGSS Germany, said: "This new mandate is a significant step for SGSS on the German market, as it reinforces our role as a global custodian in Germany."

Northern Trust custody assets jump in Q2

Northern Trust reported a 7% increase in assets under custody and/or administration (AUC/A) in the second quarter compared to the same period last year to $12.1 trillion (£9.5 trillion) from $11.322 trillion.

The bank also reported an 11% increase quarter-on-quarter from $10.9 trillion AUC/A at the end of the first quarter.

Revenue from custody and fund administration servicing fees decreased year-on-year (YoY) to $376.3 million in Q2 from $385.1 million in the second quarter of 2019.

SECURITIES FINANCE:

Trade bodies partner on "digital initiatives"

The International Securities Lending Association (Isla) and the International Swaps and Derivatives Association (Isda) will collaborate on two initiatives to deliver digital solutions to their respective members.

Under the agreement, the two trade associations will work to expand electronic contract opinions and apply the Common Domain Model (CDM) to drive automation in the securities lending and derivatives markets, the two firms said in a statement.

Isda will broaden its e-contract opinions to cover securities financing transactions (SFTs) as well as derivatives, and the tool will be available to members of both associations.

Spain's shorting ban had little effect

Spain's financial regulator, Comisión Nacional del Mercado de Valores (CNMV), has said the short selling bans introduced at the height of the COVID-19 pandemic impacted bid-ask spreads but had no other significant effects.

The findings were revealed in a paper published in late July which analysed the effects the Spanish short selling bans had on its domestic market between March to May.

The ban was introduced by CNMV on March 17, coinciding with the bans imposed by France, Belgium, Austria and Greece, and ended on May 18.

Almost 1.5 million trades reported under SFTR

There were almost 1.5 million trades reported with a cash value of €14.3 trillion (£13 trillion) and a collateral value of €17.8 trillion in the first week of reporting under Europe's new stock lending reporting rules

The data, published by the International Capital Markets Association (Icma), revealed that repo transactions accounted for 398,006 transactions (27.7% of the total), representing a total cash value of €13.5 trillion (94.7%) and a collateral value of €17.5 trillion (98.4%).

DERIVATIVES:

"Fees should increase" - Marex Spectron COO

The fees that brokers charge clients "should increase" because the "business is currently skewed in favour of exchanges", the chief operating officer of London-based broker Marex Spectron has claimed.

Speaking as Marex welcomed Thomas Texier as its new head of clearing services, the broker's COO Paolo Tonucci said: "I think fees should increase. There has been a race to the bottom and the balance of risk and reward is skewed.

"I don't think any clearer would disagree that fees should rise, not for every client necessarily but in totality, and particularly as interest rates have come down and we don't make anything out of cash balances any more."

€STR switch lays "solid foundations" for SOFR - LCH

The switch to the euro short-term rate (€STR) from the euro overnight index average (EONIA) has put solid foundations in place for the next industry-wide transition in October, the LSE Group's clearing house LCH has said.

Philip Whitehurst, head of service development, rates, told Global Investor it is too early to make a long-term assessment of the transition's impact after just one day, but the signs are


PHILIP WHITEHURST

positive across the industry.

"We want to see a few more days of activity, but yes, everything we've seen so far we can be very pleased with, not just as LCH but as an industry," he said.

Derivatives crucial to EU's Green Deal - report

Derivatives markets have the potential to make a crucial contribution to the EU's European Green Deal by supporting capital raising and investment for the transition to a low-carbon economy, a report by the European Capital Markets Institute (ECMI) suggests.

The transition to a sustainable economy in Europe is expected to require more than €1 trillion (£900 billion) of capital, says ECMI, part of the Centre for European Policy Studies based in Brussels.

Issuers of and investors in that capital will "want and need to manage the associated interest rate and other risks of these investments, and derivatives are the most efficient way to do so," ECMI said in its report. ■

Impax chief Simm tracks trends in sustainable investing

By **Luke Jeffs**

More than twenty years after Ian Simm formed Impax Asset Management to invest in companies designed to expedite the transition to a sustainable economy, the chief executive has a lot to reflect on as the world faces life after COVID-19.

The London-based asset manager performed relatively well in the early part of the year, with inflows of almost £1billion in the three months to the end of June - the peak of COVID-linked volatility – to take its assets under management above £18bn.

The Aim-listed firm's share price fell in line with the market in March to about £2 but beat its peers by bouncing back to £4 by the end of May and staying there since.

The pandemic has posed some interesting questions about the robustness of the incumbent investment strategies. It has also cast the spotlight on the business of environmental, social and governance (ESG) investment which has in recent years become popular among firms keen to demonstrate their ethical investment credentials to increasingly discerning customers.

Simm, who launched Impax before ESG existed as a term, is understandably sceptical about the influx of 'ESG' managers because his message has been consistent for more than two decades: "We have a distinctive investment philosophy - focused on investing in companies and assets that are well positioned to benefit from the transition to a more sustainable economy."

Simm believes sustainable investing is not desirable, it is necessary.

"As the world's population grows from where it is today to a larger number, more and more people are consuming more and more resources to support higher standards of living and more people are moving to cities against the back-drop of a finite planet with increasingly vulnerable air and water quality, increasingly scarce resources and an unstable climate.

"Against that back-drop, it is necessary and, to a significant degree inevitable, that society will find a way to adapt to those constraints, to become more environmentally aware and more efficient in the way that resources are being used," he said.

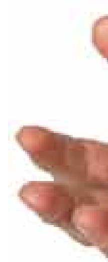
One objective for investors is to spot firms that have the best solutions in sectors such as water supply, water treatment, recycling, energy efficiency or sustainable food.

Another is to divest those firms that are not prepared for the transition: "There are risks in other parts of the economy that are not sustainable, where companies may be threatened and ultimately go out of business. Obvious examples are businesses involved in the supply of fossil fuels, certain types of materials such as steel and cement that require a high degree of pollution for their manufacture or companies making chemicals that are subject to new regulation."

For Simm, the strategy is about delivering consistent returns: "What makes Impax special is our firm conviction that this investment philosophy is a clear way of signalling opportunities for outperformance."

Given every asset manager worth its (responsibly-sourced) salt has an ESG strategy these days, Simm may be forgiven for feeling his market is becoming over-crowded but he says Impax does not think of itself as a ESG shop: "I started the business before ESG was coined as a term. I started in 1998 whereas ESG was coined in 2004 so we have never described ourselves as ESG managers. We are pitching our investment philosophy into the mainstream market to say here is an insightful way to think about how to beat the market in terms of returns while having the opportunity to produce some great non-financial outcomes such as a better environment or social impact."

Simm is dismissive of the new breed of 'ESG' managers, questioning their credentials: "Many of them are just adding another layer to their process to check the three categories, to make



Mission Statement

- To generate superior, risk-adjusted investment returns from opportunities arising from the transition to a more sustainable economy for clients with a medium to long-term horizon.
- To make a contribution to the development of a sustainable society, particularly by supporting or undertaking relevant research and engaging or collaborating with others.
- To provide a stimulating, collaborative and supportive work-place for our staff.

More than twenty years after **Ian Simm** formed Impax Asset Management to invest in companies designed to expedite the transition to a sustainable economy, the chief executive has a lot to reflect on as the world faces life after COVID-19.

sure their investments have been made cogniscent of risk and opportunity factors in those three areas, but that's just an incredibly narrow interpretation of the transition to a more sustainable economy."

The Impax chief continued: "After the financial crisis of 2008, there was a lot of navel-gazing about what had gone wrong and ESG was grasped as a metaphor for what should have been thought about before the crisis - if the companies that had gone to the wall had been more aware of good governance and environmental and social issues, we wouldn't have had the financial crisis."

The crisis that began in late 2008 coincided with a big climate-change conference in Copenhagen the following year so there was a growing impetus behind ESG.

Simm: "We have a distinctive investment philosophy - focused on investing in companies and assets that are well positioned to benefit from the transition to a more sustainable economy."

"ESG became short-hand for "we've got to be more mindful of risk" and, by the way, there are portions of society that are not happy with how things are working so, if we think about ESG, we can signal to those group that we are being more thoughtful," said Simm.

"So, in that context, there are a lot of institutional investors interested in opportunities to deploy capital with an ESG badge a) because they think that offers good risk characteristics and b) they have a sense that such investments will allow them to communicate good corporate citizenship to their stakeholders like pension beneficiaries."

Simm said the influx of asset managers into ESG is a mixed blessing for Impax: "Ultimately it is a good thing that there is a lot more interest in ESG because Impax can slot its investment philosophy into that conversation quite naturally, particularly given our long history of working on these issues.

"Having said that, the more people there are shouting about something in the marketplace, the harder you need to work to get your voice to be understood."

Stepping back, Simm has doubts about the efficacy of the ESG moniker: "One of the things that I've been saying for some time is that E, S and G don't obviously fit together. It's a hotchpotch of different ideas, particularly that governance is very different to environmental and social. Environmental and social are two risks facing firms, but we don't talk about changing technology, consumer behaviour or regulation?"

He added: "The way I like to describe ESG is that it should be a shorthand for doing a better job in investment

Regulation and Taxonomy

Impax Asset Management's day-to-day business is affected by environmental regulation, which is changing quickly, particularly in Europe.

To that end, the firm recently hired a full-time policy specialist to extend its research into policy matters.

One of the key initiatives in environmental regulation is the attempt by Europe to establish a single taxonomy to frame progress towards net zero greenhouse gas emissions.

Simm said these efforts are potentially risky.

"We've recently seen the rise of the green taxonomy from the European Union, a European-wide government-led venture to define and categorise what green means. They have produced documentation that goes into many hundreds of pages to define what green is. It was and remains pretty contentious because the taxonomy is ultimately going to be used for all sort of things such as regulation, compliance and reporting so there is a bit of a fight from different industries to get themselves included in this taxonomy."

Simm believes there are inherent problems with government-led definitions. "Firstly, there's no clearly defined boundary between "green" and "not green." For example, for some people nuclear power must be a key contributor to fighting climate change, while, for others, the pollution and safety risks are unacceptable. Second, boundaries or definitions change over time as our scientific understanding evolves."

The chief executive cites the example of diesel cars which were once promoted as green alternatives to petrol vehicles, but now we are told diesel is similarly harmful.

"Green is not a fixed thing, it's not a clearly defined concept so there is a risk in coming up with these centralised definitions. What I think is more effective is to see the healthy competition between different definitions provided by the private sector. FTSE Russell has a taxonomy that they call Green Revenues and there are half a dozen other similar classifications all of which have slightly different interpretations of the word Green, but they are all encouraged to stay on top of the issues and promote themselves to the market place."

Simm added: "I can see that there are benefits to this area being better classified, but I do feel strongly that those definitions are not seen as absolute, and they are better off being defined by consumer quality labels in the private sector."

The European example is important because it will likely become the global standard, Simm said.

"The UK and France have been leading the way in committing to net zero greenhouse gas emissions by 2050 and that is a relatively recent development. That sets a very clear goal for the whole economy to shift to low carbon and right now there is a lot of work underway to map out the sector transformations that are going to be required in areas such as energy, transportation and food to deliver on that target."

Simm said green regulation is not new but staying abreast of changing legislation is likely to become more challenging over time.

"We've had environmental regulation for about half a century so we have experience of what does and doesn't work, and we have now set a much more ambitious goal for the next 30 years and I think there's a good chance that we will be running pretty hard with new regulations to try to achieve that."

Simm concluded: "New regulations mean new opportunities, around electric vehicles, more comfortable homes or more interesting food, and so there are plenty of things for the consumer to look forward to as well. Of course, we invest time and to some degree money trying to anticipate where regulation is heading." ■

management particularly around risk assessment. So rather than thinking about three categories of risk, it is better to think creatively and broadly about what risks might be out there."

Simm believes ESG is a "sub-optimal, clumsy framework", adding: "The other thing that is confusing about ESG is that it has a history linked to ethics and values. The E and the S part can be traced back to the late 90s and what was called triple bottom line investing, focused on: people, planet, profit. ESG is still used by some people as a values-based idea to discuss moral issues whereas, for others, it's a values-neutral reminder to think more carefully about risk so it's quite easy for there to be crossed-wires as people have conversations around it."

The COVID-19 pandemic has highlighted issues with ESG strategies that seemingly over-looked the risk of a pandemic.

Simm said: "Pandemic risk is a good example. We are all experiencing it right now but it's not really environmental or social, it's more of a public health risk. You could say the same about cyber-risk – it's not really E, S or G but it is definitely a risk. If you are too blinkered or programmatic around interpreting ESG, you tend to have only three categories of analysis and can miss the point."

Simm argues that pandemics are not that unusual and firms should be better prepared for them: "We've had pandemics on an international scale since the 2000's. SARS was 2002-2003, Swine Flu was 2008-2009, so pandemics are not new. It's just that most people including governments had not really prepared for a really serious pandemic. So, in that sense, what COVID-19 has done is remind everyone how bad things can be if some of these low probability risks play out."

The Impax chief said the COVID-19 pandemic has reminded investors to consider more broadly the factors that can affect their investments.

"That is quite good for people who are thinking about the world in an ESG framework correctly because they are on the look-out for low probability risks and thinking about how they would deal with them but it's not very good for someone who is interpreting ESG rigidly because, depending on where they draw the boundaries, they will miss pandemics."

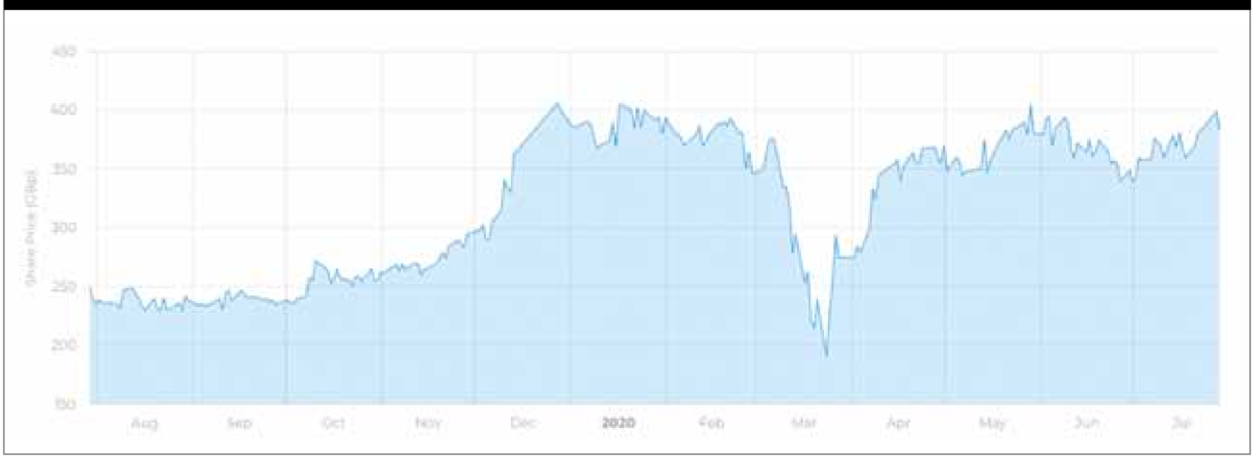
But Simm said it is too early to understand the full effects of the pandemic: "There's a lot to reflect on and I don't think anything is certain yet. A lot of people are finding it quite comfortable working from home but, if you're a junior staff member without a network or a clear idea of your career plans, it's not sustainable to be working by yourself forever. The micro-conversations and encounters people have around the office cement the culture and the feel of the place, and you can't sustain that if everyone is dispersed in their homes."

Simm continued: "We are going to be quite cautious about a massive switch to working from home. That said, I think people will be more trusting of video and voice communications to some degree in the future, and business travel will take a long time to recover to where it has been."

"We are going to be quite cautious about a massive switch to working from home. That said, I think people will be more trusting of video and voice communications to some degree in the future, and business travel will take a long time to recover to where it has been."

He said there will likely be significant long-term effects for some industrial sectors: "I think there will be dislocation in some parts of the economy. Hospitality and leisure will take time to get back, transportation will suffer

Impax Asset Management: Share price, August 2019 - July 2020



with more people working from home and travelling less. But others will do well, such as telecommunications and healthcare, they should see a boom.

"The economy will recover and will probably recover relatively sharply but it will come back different and hopefully better and greener."

In terms of the Impax business, Simm said: "Today we have three business lines - listed equities, private equity and fixed income. They are all focused on the transition to a more sustainable economy. We have investment teams in London, North America, and Hong Kong, and we have institutional and wholesale clients all around the world."

Simm: "From an investment perspective we are pretty well covered in the three key geographies. Over time we would probably want to add more people in the Asia-Pacific region as our business activity grows there. Whether that is through another office or more people in the Hong Kong office, we can't really say."

He added: "Broadly speaking we are planning to extend our client footprint, serve more clients and serve our current clients with bigger amounts. We are not intending to proliferate a large number of new products, but we are carefully thinking about other ways that we can reflect our investment views in new portfolios."

Simm pointed to the launch in 2019 of an actively managed portfolio that takes stocks from a basket of companies that have significant levels of female representation on the board and/ or in management or leadership. The Global Women's Select Strategy is based on a long track-record of doing something similar in the passive space, Simm said.

He continued: "Historically Europe has been the place with the most interest in this type of investing which is not a surprise because European environmental regulations are more comprehensive than anywhere else in the world. European environmental industries are probably better developed than in other parts of the world. Having said that, we do see a sizeable and rapidly growing market in North America, so we have recently launched two new mandates in Canada and have a good pipeline of new business in the US."

Simm said the Asia-Pacific region has been slower to show interest but it is starting to pick-up in some countries such as Australia and Japan.

"The economic growth has been so strong in that region over the last 15-20 year period that citizens and governments are experiencing the kind of environmental problems that Europe and North America have been aware of for many decades and therefore there is much more interest in the Asia Pacific region about protecting the environment and protecting the social fabric."

Impax has been investing in Chinese companies for 15 years through its Hong Kong-based office. Simm said inflows from Chinese firms have been minimal but that market is one-to-watch because the Chinese government has made a strong commitment to resource efficiency and sustainable development.

He said: "Over time, as the Chinese capital markets and their interest in overseas investment grows, we are hoping to be well-placed to tap into Chinese clients, but we are not doing that at the moment."

Simm said Impax, which has 170 staff of which 55 are analysts or fund managers, is looking to increase its presence in targeted areas: "Our business has been growing quite rapidly recently and is expected to continue to grow - moving forward we will certainly look for more investment opportunities and to cover more areas. Therefore, we would anticipate wanting and needing to hire a few more specialist investment staff."

"From an investment perspective we are pretty well covered in the three key geographies. Over time we would probably want to add more people in the Asia-Pacific region as our business activity grows there. Whether that is through another office or more people in the Hong Kong office, we can't really say."

Simm added: "In the US, if we were to open another office it would be to get closer to certain groups of clients rather than to provide an additional research hub."

The majority of Impax's investments are in publicly-listed markets but it has a growing private equity arm focused on renewable energy: "Our preference in the private markets is to own 100%, whether we start the company or buy it from someone else. Generally speaking, there is so much demand now for built assets, the way to make money in our view is to get those assets built and sell them on to long-term demand. So, we have a fairly short ownership period because it normally takes a year or so to build the assets."

Simm added: "We may be buying it a year or two before construction starts so our typical hold period is three or four years by the time we've got in and got out."

The chief executive said Impax has worked in this way with 25 firms over the past 15 years.

A recent success for Impax was the April 2020 renewal of its Queen's Award for sustainable development, which Impax first won in 2014.

Simm said: "It is described as the UK's most prestigious business award and it does account for a large number of factors including business success, particularly around international expansion, and, in this case, around environmental practices."

The chief executive said the award reflects the firm's travel and office environment policies as well as its welfare and charitable efforts.

Impax supports a charity called Ashden, which works with charities and start-ups in the clean energy space, and Client Earth, an environmental law group that holds governments and companies to account over their environmental footprint.

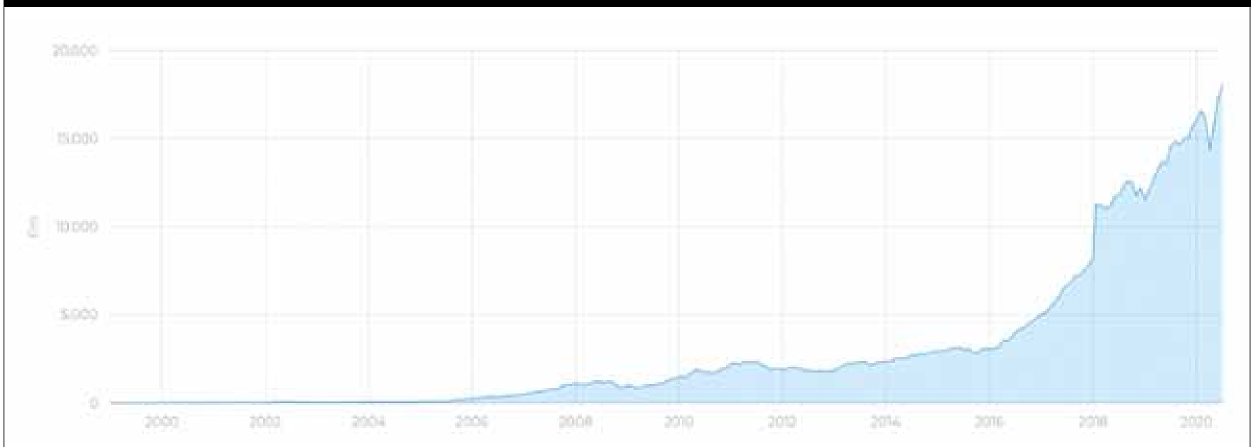
Simm is also pleased with his firm's performance over the first half of this year: "Companies that have been consistent with the transition to a more sustainable economy have out-performed this year quite considerably, whether that's because they are deemed to be more resilient or they are in sectors that are less prone to earnings downgrades

Impax Asset Management timeline

1998:	Impax Asset Management founded with mandate from the International Finance Corporation (IFC)*
1999:	First listed equity strategy launched with advisory contract for Alm. Brand Invest in Denmark
2001:	Floated on the London Stock Exchange's Alternative Investment Market (AIM) and subsequently renamed Impax Asset Management Group Plc
2002:	First own-label listed equity fund launched: Impax Environmental Markets Plc
2004:	Launch of Impax Funds (Ireland) plc, a self-managed umbrella UCITS
2005:	Launch of first private equity infrastructure fund
2007:	BNP Paribas Asset Management Holding became a shareholder; Hong Kong team established; Advisory relationship with Pax World Management LLC established
2008:	SEC registration; UN PRI signatory
2010:	Launch of second private equity infrastructure fund
2012:	New York Metro office established
2014:	Portland (OR) office established; Impax received the Queen's Award for Enterprise: Sustainable Development
2015:	Impact methodology launched; Global Opportunities strategy seeded
2016:	SmartCarbon research published
2018:	Impax acquired Pax World Management LLC which was subsequently renamed Impax Asset Management LLC
2019:	Impax received World Economic Forum's Circulars Investor Award

*Corporate finance advisory firm Impax Capital Ltd was established in 1994. Ian Simm was working at Impax Capital prior to founding Impax Asset Management Ltd in 1998. Impax Capital Ltd ceased operating in September 2007.

Impax Asset Management: AUM 2000 - 2020



depends, but we have definitely seen a solid performance."

Simm said the company has seen positive inflows each month this year, which makes Impax unusual among its peer group.

"Assets under management at the end of April were $20bn. We are a publicly held stock and that is a metric that the market looks at and is keen to see improvement on. Having said that, we are investment people rather than asset gatherers, so our overwhelming priority is to make sure that the investment performance comes through, and staff are happy and committed. The number matters but is not the be-all-and-end-all."

As a boutique manager at a time when the largest asset management groups are keen to establish their sustainable credentials, Impax could become a takeover but Simm is cool on the prospect of M&A activity.

"We are committed to being in this business in perpetuity because we believe in our investment philosophy. What that means for the ownership of the firm is much less relevant because we feel if we do a good job in delivering great returns for current clients, the business will grow much more easily than if we try to be clever and do lots of acquisitions to create growth."

He added: "We are happy to be public and have been since 2001. We are not angling for any change in ownership. I have satisfied shareholders as far as I am aware and there is plenty of potential for further expansion."

Looking more broadly, Simm is also tracking secular trends in the asset management business.

"What is the future of the investment management sector? There is plenty of evidence that the growth in passive is going to carry on but, at the same time, there is plenty of evidence that specialist investment managers, the boutiques that have differentiated ideas also have great prospects if they are able to deliver on their promises."

He added: "The concept of Impax as a boutique with a differentiated idea that it has been pursuing for a couple of decades puts us in a very good place. At the same time, there is yearning in the industry for investment managers to embrace more diverse sources of talent and to engage more with society. We are committed to doing that through our own diversity and inclusion practices but also our outreach to policymakers, charities and educational charity groups."

Impax has active programmes to recruit women and from ethnic minorities, screens recruitment shortlists and runs a diversity and inclusion working group which has a number of projects to promote diversity.

Simm said: "I do think asset management still has got some way to go to get to where it should be because it is not really reflective of the population that it is serving." ■

Memberships

Impax Asset Management is a member of or signatory to:

Principles for Responsible Investment (PRI): Aims to help investors integrate ESG considerations into investment decision making and supports sharing best practice in active ownership.

Institutional Investors Group on Climate Change (IIGCC): A forum for collaboration on climate change for European investors.

Investor Network on Climate Risk (INCR): Partners with investors worldwide to advance investment opportunities and reduce material risks posed by sustainability challenges such as global climate change and water scarcity.

The Carbon Disclosure Project (CDP): An independent organisation holding the largest database of corporate climate change information in the world.

Council of Institutional Investors (CII): Promoting strong governance and shareholder rights standards at public companies.

UK Sustainable Investment and Finance Association (UKSIF): Provides services and opportunities to align investment profitability with social and environmental responsibility.

USSIF: A US based membership association promoting sustainable, responsible and impact investment.

Global Impact Investing Network (GIIN): The largest global community of impact investors (asset owners and asset managers) and service providers engaged in impact investing.

Task Force on Climate-related Financial Disclosures (TCFD): Develops voluntary, consistent climate-related financial risk disclosures for companies providing information to investors, lenders, insurers and other stakeholders.

The UK Stewardship Code: Aims to enhance the quality of engagement between institutional investors and companies to help improve long-term returns to shareholders and the efficient exercise of governance responsibilities.

PRI Sustainable Stock Exchanges Working Group: A peer-to-peer learning platform for investors, regulators, and companies. Looking at enhancing corporate transparency, and ultimately performance, on ESG risks and encourage sustainable investment.

ACGA: Focuses on collaborative engagement with companies and policymakers to improve governance structures and practices in Asia.

A Just Transition: Looking at challenges faced when moving to a more sustainable economy and why investors need to integrate a social dimension into their climate strategies.

Measuring, managing, and monitoring natural capital risk

By **Matthew McLuckie,** Director of Investor Relations, Planet Tracker

Risks to the world's stocks of natural capital – such as soil, air and water – are putting increasing pressure on the investment performance of food and agriculture listed equity funds (AgriFunds). Natural capital related risks, in certain cases, are contributing to underperformance of the food and agriculture industry and more specifically AgriFunds relative to their benchmarks.

Growing for Profit, Planet Tracker's latest food and agriculture industry report analyses 37 AgriFunds and finds that natural capital risks are rarely addressed in their annual reviews and investment updates. As a result, all institutional investors in these AgriFunds are not necessarily aware of and, therefore, are unable to measure natural capital related risks to their investments.

For ESG (environmental, social and governance) aligned investors in particular, deeper insights reveal that most AgriFunds assessed in Growing for Profit are furthermore not disclosing portfolio alignment with sustainable food and agriculture production targets set out by science based organisations such as the EAT-Lancet Commission on Food, Planet, Health; Food and Land Use Coalition (FOLU); and Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) together with market based targets such as Sustainable Development Goal (SDG) 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

In order to support a global food and agriculture industry capable of feeding a population approaching 10 billion by 2050, and at the same time reduce natural capital related food and agriculture supply side volatility, AgriFund managers and all their investors have a joint responsibility to ensure investments are aligned with science based and social targets set out by these organisations.

Fragile food and agriculture systems

Science based evidence highlights a growing frequency and intensity of global natural capital risks - including deforestation, soil depletion, and overfishing – impacting food and agriculture production. In 2019 /2020 examples include droughts and fires in New South Wales, locusts in East Africa, the COVID-19 and African Swine Fever pandemics, and 'mega drought' in California.

The localised economic disruption caused by such events not only exposes short-term risks to supply and demand of the world's global food systems, but can highlight wider financial risks, including budget shortfalls, revenue losses and potential credit downgrades to companies along the supply chain.

Transparency and disclosure risks abound

To assess the exposure of AgriFunds to such risks, and to quantify the impact of this on investment performance, Planet Tracker identified 466 private and public thematic food and agriculture investment funds, ETFs and other investment vehicles using research from Valoral Advisors. From this list

> **“It is in the interest of all investors and AgriFund managers, not only those ESG aligned, to safeguard natural capital because it is directly material to the performance of their investments.”**

we applied a replicable methodology filtering funds only targeting public equities. This yielded a benchmark sample of 37 AgriFunds with an aggregate market capitalisation of $21 billion (£16.3bn) at the end of 2019.

Analysing this sample Planet Tracker found that these AgriFunds are, as would be anticipated, overexposed to the Consumer Staples sector (relative to their benchmarks including the S&P Global Agribusiness Index and DAXglobal Agribusiness Hedged Index). The result: a greater likelihood that natural capital risks could materialise and impact both company financial performance and fund manager investment performance.

In order to adequately manage and mitigate these risks, asset managers can as a starting point identify and measure natural capital risks faced by individual companies within their portfolios. This can be achieved by following industry guidelines such as the UNEP-WCMC Natural Capital hierarchy, PRI Responsible Investment in Farmland, CFS Principles for Responsible Investment in Agriculture and Food Systems and the OECD-FAO Guidance for Responsible Agricultural Supply Chains.

Of the 37 AgriFunds analysed in Growing for Profit, only three – DWS Global Agribusiness, DWS Invest Global Agribusiness, and Janus Organics Thematic ETF – identify and describe how they mitigate natural capital risks (at least partially) within their 2018/19 annual reports and related securities' filings. And only one fund – DWS Invest Global Agribusiness – references alignment with one or more of the global sustainability initiatives including for example the SDGs within their 2018/19 annual reports and related securities' filings.

Measuring, managing, and monitoring portfolio risk - cause for concern

For investors, this raises the question: how meaningfully and consistently are AgriFunds factoring in natural capital risks or sustainability commitments in their decision-making and ongoing performance analysis?

Planet Tracker's research did identify certain asset managers with robust environmental risk management processes, investor stewardship commitments and ESG policies. Our research however highlights the majority of these asset managers are failing to communicate how these commitments and policies, in this case related to natural capital, are applied to the management of individual AgriFund portfolios. Investors are therefore only able to accurately measure natural capital related performance risk and volatility for AgriFunds disclosing this information, ideally in line with one or more of the standards mentioned above.

The top 20 investors with the largest holdings in these AgriFunds, managing $6.7 billion – or approximately 30% – of the total assets under management invested by the 37 AgriFunds, are particularly exposed.

What's more, due to the lack of natural capital risk reporting among AgriFunds, these investors – including Bank of America, Credit Suisse, Goldman Sachs, Morgan Stanley, UBS, Barclays, Bank of Nova Scotia and Royal Bank of Canada, to name a few – are left unclear as to how such risk assessments and stewardship commitments are actively applied and monitored at an AgriFund level, where their capital is invested.

Safeguarding natural capital is financially material for all companies and their investors

Growing for Profit highlights that it is in the interest of all investors and AgriFund managers, not only those ESG aligned, to safeguard natural capital because it is directly material to the performance of their investments.

In this light, there is an immediate need for asset managers and the AgriFunds they manage to report more accurately on how natural capital risks impact investment performance. By doing so, AgriFunds and the food and agriculture industry they finance can improve sustainability reporting standards and alignment, better mitigate nature capital related supply side production volatility and support a transition towards future global food security. ■

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Covid-19 and the global debt crisis

By **Perle Battistella**

Economist and Nobel Memorial Prize recipient Joseph Stiglitz talks about the consequences that the Covid-19 pandemic will have, notably on emerging markets and the rising fear of a global debt crisis.

"That pandemic is now moving to the developing countries in emerging markets and these countries are more vulnerable as their health status is weaker, they do not have the health facilities to respond. They do not have the economic resources to respond to the inevitable economic downturn that a lockdown will result in," says Stiglitz.

He notes that the creditors, notably in the US and UK, are precipitating what could be a global debt crisis as emerging markets borrowed too much in the past and now some of the largest financial institutions have taken a recalcitrant position. When companies put themselves up as responsible firms, this position demonstrates what Stiglitz calls "the disparities between the rhetoric and reality".

"They're refusing to restructure the Argentine's debt. It's a great concern, because it is very likely that one of the consequences of the pandemic will be a rash of sovereign debt defaults in the next year or two," adds Stiglitz.

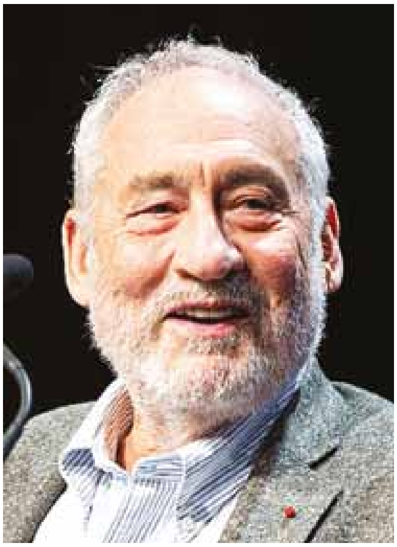
The Nobel Prize recipient also highlights that the Covid-19 pandemic has made us aware of our global interdependence and that has a couple of important implications.

A strong economic recovery will not occur until the world has recovered, but importantly, the health of the economy cannot continue without the health of its citizens.

"Covid 19 has highlighted a series of interconnections that were obfuscated in standard GDP measurements between the health of the economy and the health of our citizens, between inequality and overall economic performance, between short term performance, resilience and sustainability.

"One can't have a healthy economy without a healthy population; the fear of the disease is what caused the decline, not government lockdown but premature openings have led to an increase in disease, with adverse effects on the economy," explains Stiglitz.

While governments around the world have been pouring huge amounts of money to support their economies, this must be sustained



and it must be redeployed towards responsible investments otherwise the public spending will have been for nothing, he says.

"Unless you provide some kind of sustained support, the $3 trillion (£2.36 trillion) in the United States that we've already provided will have been for nothing. Of course, the high level of spending and high level of deficit mean we have to make sure the money is well spent; we have to make sure our programmes are well designed.

"Part of being well designed means we have to be sure our money does what I call 'double duty' in which it will help create the kind of economy we want after the pandemic. This means we have to have responsible public investment," adds Stiglitz.

The role of governments in shaping a greener and more sustainable economy is paramount for our global recovery and some countries have taken this to heart, the nobel price winner notes, highlighting Europe's pledge outweighing that United States'.

"Europe has done a much better job on this than the United States and with the recovery packages that Europe has put together, there's been a real vision of where they want to go, particularly in creating a sustainable green economy.

"The government has multiple instruments by which it can help shape the economy that is going to emerge after the pandemic, it can affect what happens through the allocation of funds, and it can affect it by imposing conditionalities on those who receive the funds," says Stiglitz. ■

"Part of being well designed means we have to be sure our money does what I call 'double duty' in which it will help create the kind of economy we want after the pandemic. This means we have to have responsible public investment."

Joseph Stiglitz, Economist and Nobel Memorial Prize recipient

Silence "not an option anymore" – The industry's pledge to diversity

By **Perle Battistella**

In light of recent tragic events in the United States where the deaths of George Floyd, Breonna Taylor and Ahmaud Arbery drew public attention to the Black Lives Matter (BLM) movement across the world, large organisations have been vocal about how they plan to shape the agenda to promote diversity and inclusion (D&I) further. In a time where people are calling out for their rights, global business heads in the financial sector have publicly shared their concerns, their condolences and their commitments on effecting change. As mass employers, large organisations need to re-evaluate their D&I strategies by looking at what has worked, and what has not.

While the media may have decreased its daily reporting of the BLM protests, it is clear that the issues have not gone away, nor should they. Jörg Ambrosius who heads State Street's Europe, Middle East, and Africa (Emea) business, comments: "Given the tragic events in the United States, I hope that this is a permanent discussion that does not cool-off, as this is a long-term challenge which needs collective effort, focus and concrete action in order to win. I would also say that the financial industry has a clear responsibility here to do things differently in the future."

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Jörg Ambrosius, head of State Street's Europe, Middle East, and Africa (Emea) business

Given that many financial organisations have a large number of employees, the industry plays a crucial role in tackling global cultural issues. When asked about the industry's role, Teresa Parker who leads Northern Trust's Emea hub says, "I think the first one is to be aware in order to understand what the issues are, what's causing inequality, and what's causing majorities to stay in leadership roles. Secondly, we are part of the economy and so how we interact with the economy matters. I think about financial institutions and how they support the economy overall to make sure that there is easy access for all citizens to financial services."

While D&I initiatives are not new, these top custodian banks have been refreshing and adapting their strategies to ensure that they promote D&I on an ongoing basis, while also ensuring that they hold people within their organisations accountable. A common theme that reoccurs is that accountability sits within the senior management level and not within human resource (HR) departments. Dr Grace Lordan, an associate professor and economist at the London School of Economics and Political Science (LSE) says that placing D&I in the hands of HR is the reason why it is not resonating throughout organisations. Dr Lordan and Karina Robinson are launching the Inclusion Initiative at LSE in November, which sets out to leverage behavioural science insights with data science to advance our understanding of the factors that advance inclusion within the financial sector.

Alongside this insight, the initiative also seeks to offer proof of a causal link between inclusion to outcomes that are important to those firms such as profit and loss, creativity, the assessment of risk and innovation. "The first stage within companies is to make people realise that inclusion within teams is actually better for the team, with respect to thinking creatively, innovatively and assessing risk better. If you showed any manager that by being more inclusive and changing their managerial tactics it would be better for them with respect to their team performance, they would then put focus on it. Believing that HR are the ones responsible for D&I is why D&I is not working," says Dr Lordan.

Parker reiterated the same views, highlighting that D&I stems further than just with HR. "We've just done a strategy refresh in terms of diversity and inclusion, a couple of things have come out and some lessons have been learnt. The first thing is making sure there is clear accountability, which is not with HR, but with senior management. The second is making sure that you measure your results. We now call our strategy 'diversity, equity and inclusion' as a result of this refresh. It is important that all senior executives have responsibilities and it's part of how we are assessed," adds Parker. In terms of the hiring process and ensuring that underrepresented groups are given equal opportunities, Ambrosius adds, "An area where senior executives obviously play a key role is when it comes to the hiring processes. When there is a senior position up for bid, we ensure that we have interview panels as well as candidate panels, which are diverse. This is not purely HR related; this is the managers' responsibilities." This hiring strategy is mirrored at Northern Trust, "we mandated that for all senior hires, we would need at least one woman or one ethnic minority, and the hiring panel would include the same," comments Parker. In terms of Northern Trust's statistics, Parker adds that within its board of 13 members, 38% are from Black, Asian and Minority Ethnic (BAME) backgrounds and 23% are women. At the bank's management group of 11 people, 2 (18%) are from BAME backgrounds and 3

> **"Being silent is not an option anymore and that is the key point here. This is where managers have the responsibility to work with their team in order to create an environment where we can openly speak about these issues."**
>
> **Jörg Ambrosius,** head of State Street's Europe, Middle East, and Africa (Emea) business

(27%) are women. At its executive vice president level, which is compromised of 53 people, 10% are from BAME backgrounds and 33% are women. State Street did not disclose its statistics.

While the hiring process is crucial, equally important aspects are promoting, mentoring and tracking career progressions. Parker adds that the same mandate applied to the hiring process is also used at the promotion stage. "We did the same thing in terms of promotions to ensure that you are applying the same standard across the genders and now we are starting to focus on those biases. I don't think that previous to those discussions senior management team felt that they were biased against women, but they were doing what society does, which is to say women have to prove themselves before getting promoted, but with men, you can see the potential coming," says Parker.

At State Street, its mentoring process is adjacent to what the bank calls 'sponsoring'. Ambrosius adds that in the gender space, the bank implemented sponsoring programmes and is talking about doing the same for people of colour. The sponsorship means seeking out a manager with an individual where they would want to sponsor their career in order to increase the number of diversity groups at management level. "With sponsoring, there's a very concrete outcome we are striving for and that is to actively push careers of certain individuals to give them a fair chance. That is something which we have done and which we will continue to do more broadly when it comes to diversity aspects," adds Ambroisus.

In terms of tracking career progressions, over the last five years, Northern Trust has run a similar programme called the 'diverse leaders programme' in Emea. It focuses specifically on BAME talent to help improve their ability to get ahead with their careers and engage with management. "We track people to see how they are doing and that actually has been a differentiator for people of an ethnic background that are underrepresented in order to progress," adds Parker.

Both banks have also implemented mandatory unconscious bias training across all management levels. Ambrosius notes that this training is on an ongoing basis, while Parker adds that having this training allows individuals to recognise biases they may have. In turn, Parker notes that this opens up dialogues which then need senior people around the table representing those groups that can, in a positive and constructive way, call biases out to start making a difference. "Being silent is not an option anymore and that is the key point here. This is where managers have the responsibility to work with their team in order to create an environment where we can openly speak about these issues," adds Ambrosius.

Both business heads for Emea recognise the efforts that have been made at their respective banks but openly stated that more could be done, as well as in the broader financial sector. Parker says, "I do think that there are pockets of the industry where people are so far back in terms of their views that maybe it'll take until the next generation comes in…. you need to figure out what is the intervention that works as there are maybe pockets of people who either don't see it or don't want to see it."

Ambrosius acknowledges that some unrepresented groups received less attention than others, but notes that all diversity elements need to be looked at in an equal way. "There was a period over the last decade where there was a lot of focus on gender and I firmly believe that was the right thing to do at that time. However, we have to recognise that there are other diversity aspects, which are equally important and that have to be equally taken into account and actively managed. That's where I would say our diversity agenda has changed and will change." Dr Lordan shares her insight on why D&I strategies may not be working as well, or as quickly as they should.

"The reality is, millions of pounds are spent every single year in the City on things that we believe may enhance diversity and inclusion but we rarely check to see if they do. Many interventions that firms roll out are quite time consuming and when colleagues do not see change, they can become fatigued with D&I intervention. Seriously understanding whether what you're doing is working would help block that fatigue," says Dr Lordan.

Some argue that quotas, or setting D&I targets in terms of representation, could be the way forward but Dr Lordan adds that quotas can have a backfiring effect. "When we have quotas we might not necessarily be increasing diversity in the way we think we are. If you put focus on quotas for certain groups then it could have negatives effects for other groups. I think quotas can work but they need to work with auditing to ensure that there is no crowded out. I haven't seen any company do this, taking backfiring seriously. This is important because there is emerging evidence to suggest that gender quotas may disadvantage non white colleagues and also those from lower socio-economic backgrounds."

It is therefore evident that in order to change norms, address biases and tackle inequality within firms, the strategies stem from open dialogue. In order to incorporate D&I on a daily basis, Parker adds, "I think it's around attitude, inclusion, respect and culture. That means leaders need to understand what is happening, calling out issues, reinforcing good behaviour, and calling our bad behaviours, so that people feel comfortable bringing themselves to the office. I think the more diverse you are, the better you are at that and the more open minded you are, the better you are at having open conversations."

"I think the more diverse you are, the better you are at that and the more open minded you are, the better you are at having open conversations."

Teresa Parker who leads Northern Trust's Emea hub

The consensus is that having a diverse and inclusive workforce is beneficial to firms. It leads to better outcomes, a better working environment, and a better economy. To clearly distinguish how attitudes might be changing, Dr Lordan says that actions need to be witnessed. If this cannot be done through statistics to show representation as they are not always publicly available, noticing the amount of resources firms are pouring into their D&I strategies is a good starting point. "The real acid test as to whether attitudes are changed is whether actions change. It's not what companies say, but what they do. I am encouraged to see a large number of financial and professional firms moving beyond words, to pledging additional monies, talent and time and disrupting how they are approaching D&I," concludes Dr Lordan.

On that note, Nasdaq's chief Adena Friedman announced in June that the firm was donating cash to organisations fighting racial injustice and increasing its investments into its internal programmes. "We know we need to do more, and through our continued efforts, we strive to support those who need it most and to take the necessary steps to create positive change, both within Nasdaq and in the communities

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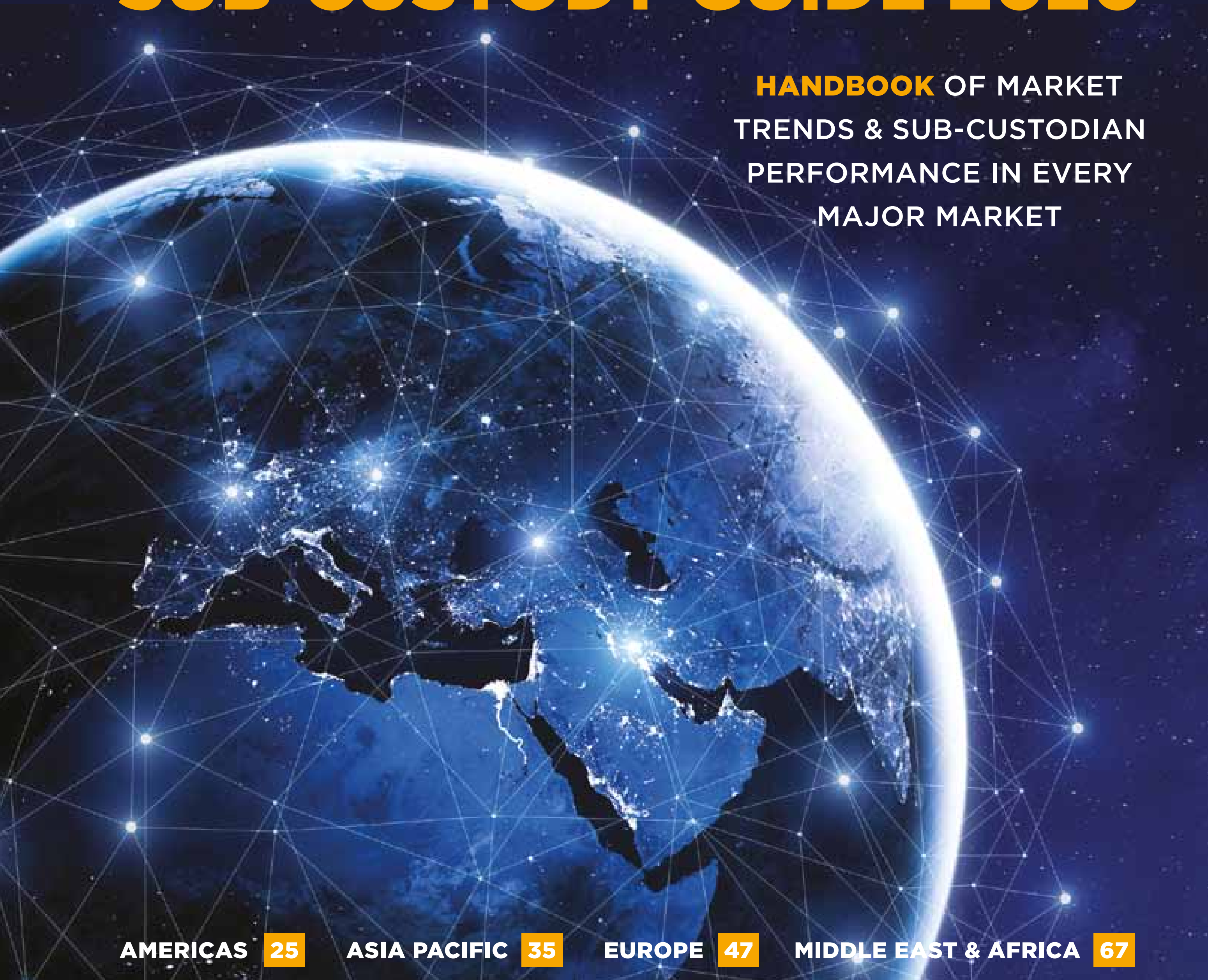
SUB-CUSTODY GUIDE 2020



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SUB-CUSTODY SURVEY – METHODOLOGY

METHODOLOGY

All users of the services of sub-custodians (agent banks), from broker-dealers to global custodians, are asked to rate their performance.

Respondents are asked to rate sub-custodians in all countries in which they operate. The performance of sub-custodians is rated separately in each country and published in the April/May issue.

Respondents are asked to rate their sub-custodians across 12 service categories (see list below). Respondents are permitted to rate up to 10 sub-custodians in each country.

For each country there will be two tables: unweighted and weighted. The weighted table allows for assets under custody as well as how important the respondents consider a certain category to be.

UNWEIGHTED TABLE

For each country, all valid responses for each sub-custodian are averaged to calculate an unweighted score.

WEIGHTED TABLES

Step one: weighting by assets under custody.

Weighted versions of all unweighted tables are produced.

First, an allowance is made so that a greater weight is given to the views of larger respondents, defined by their assets under custody (AuC).

Respondents are asked to choose a band that reflects the size of their AuC in billions of US dollars. The boundaries of each band are determined by the AuC of respondents to last year's survey. They are chosen so an approximately equal amount of respondents fit into each band.

A weighting is attached to each band as follows:

<$100bn	0.6
$100bn – $200bn	0.8
$200bn – $500bn	1
$500bn – $1000bn	1.2
>$1000bn	1.4

Each respondent's unweighted rating of a sub-custodian is then multiplied by the appropriate weighting. For example, if a global custodian with assets under custody of $567bn gives a sub-custodian an average score of 6.7, its contribution to the weighted score is 6.7 x 1.2 = 8.04. This weighted rating is then averaged with all other respondents' weighted ratings.

Where a figure for assets under custody is not disclosed a default weighting of 1 is assigned.

Step two: weighting by category importance

Respondents are asked to rank the importance of each of the service categories. These respondent rankings are then averaged. These average ranks are then used to create a weighting for each service category, which theoretically could range between zero and two but will depend on the actual responses. The average weighting is one to preserve comparability with unweighted scores.

For clarity, if on average respondents consider 'relationship management' to be the most important category, it will be given the greatest weighting when calculating scores in the weighted by importance tables.

Qualification

Qualification is on a country-by-country (rather than regional) basis. To qualify in each country, a sub-custodian needs to receive a minimum of three responses per market

If a sub-custodian is rated multiple times by the same respondent firm in the same country the ratings will be averaged and will only count as a single response for the purposes of qualification.

CATEGORIES

Sub-custodians are rated across 12 main categories, of which some are divided up into sub-categories. The 12 main categories have equal weight. Where a main category is split into sub-categories, an average of the sub-categories is taken to produce the score for the main category.

The categories are as follows:

1. **Settlement**
   - Efficiency of pre-settlement matching and reporting
   - Failed trade management
   - Timeliness, accuracy and completeness of reporting
   - Competitiveness of cut off times
2. **Safekeeping**
3. **Income collection**
   - Timeliness, accuracy and completeness of notifications
   - Timeliness, accuracy and completeness of confirmations
4. **Corporate actions**
   - Timeliness, accuracy and completeness of notifications
   - Timeliness, accuracy and completeness of confirmations
   - Competitiveness of response cut off times
5. **Client service**
   - Quality of subject matter expertise
   - Responsiveness and effectiveness of enquiry management
   - Availability and calling frequency
6. **Reporting capability**
   - Flexibility of delivery channels
   - Quality and timeliness and of SWIFT and other reporting
7. **Tax reclaim services**
   - Solicitation of timely tax documentation
   - Quality of reporting
8. **Market information**
   - Relevance of marketing information
   - Timeliness of market information
9. **Relationship management**
   - Understanding of your business needs
   - Ability to set up new products when requested
   - Quality of subject matter expertise
   - Responsiveness and effectiveness of enquiry management
   - Availability and calling frequency
10. **Securities lending fail coverage**
11. **Regulatory expertise and capability**
12. **Product development and innovation**

Americas

ARGENTINA

Unweighted	Score
Citi	5.25

Weighted	Score
Citi	7.42

In April 2020, as a result of movement restrictions that were put in place around COVID-19, the National Securities Commission (CNV) issued a regulation allowing all issuers to conduct meetings remotely via electronic platforms.

"This regulation was only applicable as long as the lockdown is in place," says Ingrid Collazo, head of securities services Citi. "However, we used this opportunity to reinitiate discussions with CNV around permanently updating the regulation to allow for votes to be submitted electronically. The CNV responded positively and will re-engage market participants from the working group formed in 2019 to take this forward."

Elsewhere, the central securities depository has announced the implementation of a new custody system jointly with NASDAQ.

Last year's presidential elections ended with the reintroduction of capital controls and restrictions in Argentina's FX market. Debt exchange and re-profiling announcements in relation to local currency government securities are another hot topic in this market.

From September 2019, HSBC Argentina implemented a direct link between HSBC's securities processing system and the local CSD core system through Swift, explains Pablo Santiago Arnoldi, head of securities services.

"The new solution translates into several efficiencies for clients, including the elimination of the manual loading of instructions into the CSD's proprietary system for settlement transactions, enhanced settlement cycle for securities instructions, and reduced operational risk," he says.

BRAZIL

Unweighted	Score
BNP Paribas Securities Services	5.98
Citi	5.41
Banco Itau	5.18

Weighted	Score
Citi	7.05
Banco Itau	4.88
BNP Paribas Securities Services	4.01

According to Antonio Nascimento, head of Brazil for BNP Paribas Securities Services, the biggest focus for 2020 is the implementation of the latest requirements applicable to Brazilian market participants in respect of anti-money laundering and counter-terrorist financing. The Securities and Exchange Commission (CVM) and the central bank have published rules aligned to the latest guidelines issued by the FAFT/GAFI for registration, surveillance and risk controls activities. Both rules have effective dates of 1 October 2020.

Last year was a period in which local regulators and market infrastructures worked together to align the Brazilian market with other markets to increase efficiency says Roberto Paolino, head of securities services Citi.

"It is also worth mentioning the successful implementation of the new equities settlement cycle of T+2, which reduced investors' exposure to risk, improved capital efficiency and enhanced the settlement system resilience," he adds.

Looking ahead, in an effort to facilitate the registration process of non-resident investors in the market, the non-resident investors' custody sub-committee at ANBIMA (Brazil Financial and Capital Markets Association) is working to align market understanding with the requirements of the regulators and to create more intuitive and user-friendly documentation for investors registering in the Brazilian Market.

CANADA

Unweighted	Score
CIBC Mellon	5.66
RBC Investor and Treasury Services	5.33

Weighted	Score
CIBC Mellon	6.66
RBC Investor and Treasury Services	6.33

Several regulatory changes impacting Canada and the global securities lending market are scheduled for implementation in 2020. SFTR is scheduled to go into effect in July and CSDR and SRD2 also have near-term implementation timelines.

CSDR is expected to improve settlement efficiency within the securities lending market through enhanced processes and technology for managing the transaction lifecycle. It may also result in higher demand for securities as financial institutions borrow additional securities to avoid penalties included as part of CSDR's settlement discipline regime.

As for SRD2, RBC Investor & Treasury Services continues to engage with various industry bodies and to refine its implementation plan around this regulatory change.

In April 2020 the Canada Revenue Agency released its revised guidance on FATCA and CRS. Abdul Sheikh, vice president, head of pension and custody services at CIBC Mellon says the revised guidance has the potential to impact Canadian institutional investors' operations, reporting and tax compliance programmes.

"For example, there are new penalties listed in the respective FATCA and CRS revised guidance if a Canadian financial institution fails to obtain a self-certification when required on or after 1 January 2021," he explains. "The revised FATCA guidance contains some modifications, including for obtaining self-certifications upon account opening, and for reporting undocumented accounts."

How Canada's financial system handled the toughest days of market volatility

Richard Anton, Chief Operations Officer at CIBC Mellon in Toronto, Canada tells GI/isf how Canada's financial system handled the toughest days of market volatility in March and the new environment that the recent upheaval has created.

Can you walk us through the response to Covid-19 as it unfolded in Canada?

The Bank of Canada (BoC) response to Covid-19 – applying the lessons learned from the 2008 financial downturn – was fast and comprehensive.

The BoC provided several rate cuts and also launched a series of large-scale asset purchase programmes. The result of the support – alongside the extensive measures in the wider economy enacted by the Canadian government – was that Canada's financial system remained stable and continued to function.

When the pandemic struck, a flight to safety saw big spikes in flow to cash and away from equities. Ultimately a lot of clients were confident in the strength and resilience of Canada's economy, meaning that across the board – both government bonds and other securities – we saw high flows. I think this was also an expression of confidence in the Canadian financial system, in part due to how we had handled the global financial downturn of 2008.

What impact did these sudden flows have on investment operations?

It's very important to stress at this point that, throughout the toughest days and weeks, we saw no disruptions to investor payments or any other investor activities. Throughout the most challenging weeks, we saw showcases of this resilience everywhere. Since June, we have crossed three month-ends and today we are working completely normally under these circumstances, and the speed and effectiveness of this transition is a testament to our strong financial services sector.

The market correction that followed from Covid-19 saw tremendous volatility and extremely high volumes of investment operations during the peak period in March. To bring it into context, this was at a time of flux as financial institutions were adapting and expanding remote work environments and resiliency models while also handling an unusually high spike in volume. The magnitude of the flows – everything was up 40 to 50 per cent in that period – including in securities lending, meant that failures created a cascade effect, rapidly creating a big backlog of exception events. We particularly saw significant outflows from investors in March, leading to a ripple effect. CSDs and other industry entities around the world required continuous timeline extensions to cope with the volumes. It took two or three weeks before the market found a stable point, volatility fell and there was a return to something approaching normalcy.

What specific challenges did you face and how did you respond?

During the period of particularly high volatility it became clear that our existing thresholds for exception reviews were not applicable. In the early days, we spent a huge amount of time maintaining bond tolerance built for fluctuations of around 2 per cent in a market that was shifting as much as 10 per cent. We soon realised that to react quicker, we would need a new monitoring tool.

While Canada's CSD continued to operate, the concentration of source dependencies created a backlog of settlements, thanks to what was, in effect, a perfect storm when it came to fund accounting: an exceptionally high volume of trading and a very high volume of pricing exceptions at end of day when it came to the process of finalising client fund NAVs. Add to that the challenge of pricing vendors having vastly different models in place, this led to discrepancies and variances in pricing.

Our teams stepped up to the challenge – we were responsive and moved decisively, engaging frequently with clients on fair value reviews and sharing business updates on our operations and industry.

How did you address the specific fund accounting challenge?

Based on the volumes of trading and exceptions and the resulting time crunch, it was clear that this would take longer than usual, creating delays in when we could expect to receive prices for bond or other derivative-type securities.

These delays obviously put us under a huge time pressure to apply the correct pricing to our clients' funds. Clearly, it was essential that we take the time for a thorough application of our due diligence checks to support accurate pricing, and our team worked with great commitment to confirm that all the necessary controls were completed before the NAVs were released at end of day.

But it was also very important to manage our clients' expectations about when the work would be complete – as well as to determine fair values and the right price sources - and this meant constant communication with them throughout the period.

How did you address the requirement for employees to work from home?

Everyone in the market – our clients, dealers, asset managers, infrastructure providers – was facing operational environments that were a long way from normal and therefore had to shift into resilience mode. Some fared better than others.

We had a particular advantage conferred by the fact that we had digitised our operations a few years ago, which was already providing a degree of transparency and flexibility and it allowed us to be remote-ready. Facilitated by this, I'm hugely proud that we achieved effectively 90 per cent working remotely within two weeks (by late March), and 98 per cent of our workforce working from home by April.

I think an organisation like ours succeeds when it is aligned from the top to the bottom and this was particularly visible here. What made it possible for us to complete this shift so quickly and with so little disruption was that we have everyone's buy-in. It is a testament that we were able to achieve the shift while maintaining – and even deepening – the key elements of our company's culture: openness, transparency, communicativeness and mutual respect.

Clearly this was not a scenario that anyone wanted, but one result has been an enhanced flexibility with which our teams can service our clients. Not only did they show themselves able to provide reliable NAVs in this high volatility environment, but during the period, we successfully took on new clients: our teams showed that they were able to support clients on fund launches. I know that what we have created in terms of the additional flexibility we now provide to our workforce and to our clients means that we are providing a better servicing model across a wide range of key products.

How are you approaching a future move back to centralised working?

Based on the research we have done, it seems we may not be in the position of sufficiently mitigating the risk of Covid-19 until 2022. As we consider a degree of return to the office in the months ahead, it is clear that the first stages of this will progress very slowly.

The worst outcome for our employees – and for our clients – would be to rush back too quickly. Certainly a return to a centralised office can be achieved operationally, but we need to be particularly cognisant of the mental and emotional stress on employees. We all know how much pressure we have faced in our work while managing these high volumes and extreme volatility – let alone in our personal lives, such as the added pressure of having children at home rather than at school.

Our awareness of the health risk – both for employees and for clients – is clearly paramount for how we consider our approach in the coming months. At the time of the outbreak when we relocated our workforce to home-based working, we were questioned about whether we were moving too early. In retrospect both employees and clients appreciate hugely that we did.

Accordingly, the initial stages of our staggered return have been on an opt-in basis for those roles associated with specific requirements or products for which location in a physical office is particularly beneficial. At the moment, we have seen our number of employees working at the office remain extremely low.

I think that's very important as we consider the future, in particular the risk of the outbreak of a second wave of infections – a risk of which we are all very aware. To that end, we could once again see major market swings, which we are well positioned to support. We have demonstrated a clear, well-implemented technology solution that helped our company produce outstanding client servicing at extremely high volumes, which helps to make certain that we have an effective workflow. This technology solution, in combination with being supported by remote operating processes that can handle any increase in volumes, is a vital source of confidence for us and our clients.

What does the Covid-19 outbreak mean for the future of work in your sector?

When I talk about planning for our return, in effect we are planning for a return to a different office. It is, if you like, the office of the future, in which the lessons we learned are assimilated to the benefit of the future operating environment and the satisfaction of our employees.

One key feature is that we will probably never have more than 50 to 70 per cent of employees in the office at any one time, thanks to flexible work arrangements. Perhaps the largest benefit to this is that the office of the future may not be as tied to the corporate headquarters, with an employee population defined by their proximity to that location.

> "I think an organisation like ours succeeds when it is aligned from the top to the bottom and this was particularly visible here."

Take away this dependence of the office on a single physical location and you create a new scope for a more diverse and talented workforce. Consider the province of Quebec, which contains a large number of French speakers who would be hard to find in other locations. Now we can remotely onboard more people – in addition to maintaining an office in Montreal, Quebec – to expand our French-speaking service capabilities while not being fully dependent on a single location.

Then consider Vancouver, British Columbia on the west coast of Canada, far from us here in Toronto, Ontario to the east. It is one of the most expensive cities in the world, one reason that we have not established operations there, despite the time difference – three hours behind Toronto – that creates significant benefits in servicing our clients from Western Canada, as well as staggering our employees' workload. In the office of the future, a workforce based in and around Vancouver will let us balance out our employee activity around the clock by spreading a workforce across the multiple locations.

We are beginning to experience the office of the future right now as our company is growing in Winnipeg, Manitoba. Looking ahead to the post-pandemic work environment, this new location will serve an important purpose, amid flexible remote work arrangements, as a space for colleagues to meet to collaborate and engage with clients.

With the arrival of the pandemic and the chance for change, I see an accelerated pace of opportunities to come as we prepare for the workforce of the future. ■

Richard Anton is Chief Operations Officer at CIBC Mellon. Richard is responsible for the direction of the Operations department at CIBC Mellon and he also oversees CIBC Mellon's client integration activities and online client information delivery systems. Richard has more than 20 years of experience in the financial services industry.

CHILE

Unweighted	Score
Santander	5.63
Citi	5.21

Weighted	Score
Citi	6.38
Santander	4.14

The Santiago Stock Exchange, or Bolsa de Comercio de Santiago (BCS), trades equities, fixed income and international securities, money market instruments and certain derivatives.

The Contraparte Central de Liquidación de Valores (CCLV) acts as the central counterparty for equities and derivatives and as the clearinghouse for bonds, money market instruments and stock repos. Settlement and custody services are provided through Chile's central securities depository, Despósito Central de Valores (DCV).

In July 2019, BCS signed an agreement with Luxembourg that would allow securities listed in either market to be traded on both of their stock exchanges, therefore providing Chilean traders direct access to new stocks and bonds, according to José Antonio Martínez, CEO of BCS.

In 2017, Chile's CSD partnered with Nasdaq to overhaul its technological infrastructure in a bid to bolster its settlement, custody, corporate event management and registry capabilities. The use of this system was sure to help BCS in implementing its fully remote operation of the exchange and its subsidiary CCLV, announced on March 27, 2020 as part of its efforts to prevent further spread of Covid-19.

Martinez said: "We have successfully implemented a remote work plan for 100% of our operations, which allowed all our services and systems to operate normally and at the regular functioning hours. "We are providing our customers with all the necessary support and services, making it easier for the market to operate remotely and normally during the COVID-19's contingency, while we have taken care of the health and safety of our employees to stem the spread of the pandemic."

COLOMBIA

Unweighted	Score
BNP Paribas Securities Services	5.67
Citi	5.21

Weighted	Score
Citi	6.56
BNP Paribas Securities Services	4.25

The Colombian Stock Exchange, Bolsa de Valores de Colombia (BVC), having merged with the Colombian central securities depository, Deceval, in December 2017, offers clearing, settlement and custody services, as well as managing trading and recording systems for the equities, fixed incomes, derivatives, foreign exchange (FX) and over-the-counter markets.

The stock exchange also holds a share in the Colombian central counterparty (CCP) Cámara de Riesgo Central de Contraparte (CRCC) and FX clearing house Cámara de Compensación de Divisas (CCDC).

Over the past year, BVC has been investing significantly in technology to promote market development and support the adoption of digital tools for investment, according to Juan Pablo Córdoba, president at the exchange.

The organisation started clearing equities through its CCP in September 2019, while also transitioning to a T+2 settlement cycle. Córdoba said: "This is a very positive step forward for the Colombian marketplace – enhanced security, adopting international standards, and new standards for the clearing cycle – all of this will help to enhance liquidity in the marketplace."

Ingrid Collazo, Securities Services Head Latin America South (LAS) and Panama at Citi, added: "With the recent infrastructure changes and developments in the Colombian capital market, the country is well positioned to receive extra investment from both local and foreign investors. These changes will ultimately bring additional protection and transparency across the entire capital market."

She added: "One of the main developments is the introduction of a Central Counterparty (CCP) for equities. As part of the core working group, Cititrust continues to play a key role in its design and was the only custodian participating in the initial testing phase of the new environment. Once the CCP is implemented, the settlement cycle will be shortened from T+3 to T+2, which will be more in line with international standards."

One of Colombia's largest pension funds, Protección S.A, picked BNP Paribas as its global custodian, leaving the French bank to safeguard its foreign assets, totalling $7.5 billion (£6.1 billion). BNP Paribas labelled the win a "landmark mandate" with Claudia Calderon, head of Hispanic Latam for the bank, saying: "This is a prestigious new mandate which highlights the strengths of our offering in Hispanic Latam."

MEXICO

Unweighted	Score
Citi	5.22
Santander	5.15

Weighted	Score
Citi	6.56
Santander	6.19

Mexico is the second largest economy in Latin America, second to Brazil's B3, and its main stock exchange, Bolsa Mexicana de Valores (BMV), is the fifth largest in the Americas.

The exchange was founded in 1933 and is now a part of the BMV Group, which also owns Mexico's central securities depository Indeval, the derivatives exchange MexDer and market data provider ValMer.

In February, Charina Amunategui, Executive Director, Business Development at MUFG Investor Services, noted that large European and American institutions are "taking notice" of the investment opportunities in Mexico, with firms such as Credit Suisse, BlackRock and KKR pursuing significant opportunities in the country.

BMV announced its partnership with GuavaTech, a managed service provider, in March 2020, which saw BMV offers its market data through the tech firm, providing clients with direct access to BMV's equity and derivatives markets in a managed environment.

At the time, José Manuel Allende, senior vice president of issuers and information at BMV, said: "Becoming part of GuavaTech's global network provides market participants reliable and secure access and opens alternatives for a larger number of financial institutions to trade equities and derivatives in the Mexican markets."

Shortly after partnering with GuaveTech, BMV also revealed an alliance with ACTIV Financial Systems, a global distributor of financial market data.

Edmundo Fajardo, Head of Securities Services at Citi, said: "After a series of ongoing discussions with Indeval, the local central securities depository (CSD), and market associations, the CSD has since decided to include remote voting as one of their initiatives for 2020. We anticipate that due to Covid-19 and the market difficulties experienced during this time, local regulators will be making this a priority; however, the timeframe remains uncertain.

He added: "We have been leading discussions with the Central Bank through the Mexican Securities Intermediaries Association (AMIB) in order to enhance the current regulatory framework to promote a volume increase in the local securities lending market, benefitting investors. We have also proposed that institutional investors be allowed to perform securities lending transactions on behalf of clients through the over-the-counter (OTC) market."

> Mexico is the second largest economy in Latin America, second to Brazil's B3, and its main stock exchange, Bolsa Mexicana de Valores (BMV), is the fifth largest in the Americas.

PERU

Unweighted	Score
Citi	5.32

Weighted	Score
Citi	6.62

The Lima Stock Exchange has been in existence since 1861, although the exchange operating today – Bolsa de Valores de Lima (BVL) – was established 110 years later and became a public company in January 2003.

Like many other firms, PwC Luxembourg identified a number of opportunities in the Americas – Latin America (LatAm) specifically – and predicted that assets under management in the region will grow by 75% from \$2.4 trillion (£1.8 trillion) in 2018 to \$5.3 trillion in 2025.

In a report published in December 2019, Fanny Sergent, AWM partner at PwC, said: "LatAm is attractive for asset managers as it is not a mature market such as those of North America and Europe, and there is a rising middle class as well as private pension systems in Chile, Peru and Mexico that require asset management services. For institutional investors, the privatisation of infrastructure in this region provides attractive opportunities."

Following a two-year project involving Citibank, Scotiabank, pension fund manager AFP Integra and Peru's central securities depository, Cavali, BVL launched a new securities lending platform in 2019 in a bid to attract institutional investors to the market.

The Peruvian exchange said: "During 2019 the BVL made further efforts to improve the liquidity levels of the local market. The activities have been focused on involving the institutional investors (Private Pension Funds) to a greater extent and deepening their role in the local participants in the trading of the local. It is currently assisting market participants to deploy algorithmic strategies for market making and international arbitrage operations. Finally, the exchange has been working closely with the market regulator, extending several fee

COVID-19 and custody: the catalyst for digitization?

Aashish Mishra, Asia Pacific Head for Direct Custody and Clearing (DCC) business and **Bryan Murphy,** Global Head of Sales, DCC & Intermediaries Client Coverage at Citi tell *Global Investor* how the widespread digitization of market processes necessitated by COVID-19 has demonstrated the merits of a digital approach.

GI: What immediate impact did COVID-19 have on the trend to digitized processing?

Aashish Mishra: Before the COVID-19 outbreak, the availability of new technology and the cost savings it could achieve drove digital adoption across the trade life cycle. Many of these savings were concentrated in the pre-trade environment rather than the post-trade environment, where we work.

Post-trade, the main hurdle to wider digital adoption, and the benefits that follow, was encountered in the 'last mile'. Here laws, rules or market practices imposed explicit constraints on digital adoption. In many cases and in many countries, these required, for example, the presence of a physical document or that a representative of an organization that was party to a transaction be physically present. These were hard, fast – often legal – barriers that could not be overcome.

COVID-19 provided a compelling need for market participants and their regulators to overcome these last mile hurdles. Overnight the benefits of digitization moved from theoretical and nice to have, to practical and essential. Where regulators had justifiably taken the view that shifting to digital processes in many cases was principally a matter of improving convenience for market participants, it was now clear that these shifts were essential to keep markets accessible to investors and therefore continuing to function.

Suddenly there was a degree of willingness – much greater than at any stage in the past – to drive wide scale change, quickly.

GI: What specific risks arising from COVID were digitization initiatives designed to combat?

AM: Where physical market practices did not immediately allow for a digital alternative, COVID-19 revealed three groups of unique risks: tactical, financial and systemic.

Tactically, during COVID there was genuine fear that participants may not be able to perform certain critical activities which are physical in nature - like obtaining IDs or licenses to operate in a market, account opening for investments, tax procedures etc. These tactical implications could have a material impact on individual investors, and potentially across the wider market when combined across multiple participants. In some cases, temporary relaxations and workarounds were implemented but the challenge will be to make these permanent.

The second group of risks entailed by physical processes was financial risk. For example, in companies' shareholder meetings, holders of shares or their proxies must participate in votes on agenda items, such as capital raising whose outcomes have an immediate impact on those companies' share prices. Where that process required physical paper work or individuals' physical attendance, participants realized immediately the scale of this economic risk of being unable to carry it out.

The third group of risks was systemic and required participants to review their entire operating model. Suitable infrastructure and contingency planning was essential to support critical activities across the post-trade cycle. One reason this was so challenging was that previous plans had not anticipated widespread social distancing requirements. Typically these plans had been built around a single geographic relocation, when the failure of one site – arising from a terrorist attack, for example – triggered a plan to relocate the business processes, and those required to support them to a second, alternative site.

Few participants had made provisions that allow for the truly distributed operational solution that would be required by having their entire workforce work from home.

GI: How did these risks present to providers like Citi?

Bryan Murphy: Where participants supported large chunks of the market, their ability to respond to the systemic risks created by COVID-19 was critical for the smooth functioning of the market.

In many markets, where Citi holds a large market share, our response was crucial for our local franchise and our clients. In such situations, failing to have in place an effective contingency for remote working could significantly impact not only our clients but also the overall market. The impact of a timely and effective response on the franchise in such cases could hardly be greater.

GI: How has digitization preserved access to Asian markets by foreign investors during COVID-19?

AM: Several countries added a digital dimension to the processes supporting foreign investors' registration.

For example, Korea simplified the application process for the Investor Registration Certificate which registers each foreign investor as a separate independent beneficial owner, without which foreign investors are not able to keep securities or settle transactions under their name with local brokers and custodians. Previously requiring a physical notarised document, the regulator simplified the requirements to temporarily allow digitally scanned forms.

In India, the Securities and Exchange Board of India (SEBI) requires a similar process to grant licenses to trade under its foreign portfolio investors (FPIs) regime. Again, scanned versions were accepted in place of physical documents.

Indonesia smoothed the tax requirements for foreign investors. Whereas investors previously had to provide original signed Certificate of Residence / DGT forms, authorities are now accepting scanned versions and / or documents with e-signatures from countries which recognise digital signatures.

GI: How about cases like AGMs, which required people to be physically present?

AM: In Indonesia, for example, voter proxy and company meeting processes were digitized, through the introduction of eProxy and eVoting systems. Issuers could then use electronic platforms to accept voting submission from custodians and to host virtual AGMs, requiring this method of attendance for all participants who would otherwise have attended in person. Those shareholders voting by proxy could also communicate their intentions to proxy providers in turn.

GI: How did digitization aid the enforcement of short-selling bans?

AM: One Asian market to impose new requirements around securities finance was Korea, following a six-month ban on short sales enacted by the Financial Services Commission in March. Citi had to put in place a framework that would support its clients, so that they did not break the ban inadvertently, specifically using host-to-host connectivity with the depository to facilitate real-time lending status reports to help clients manage their lending inventory.

GI: What specific digitization initiatives did Citi prioritise with clients?

AM: Our Securities Services country heads across our 16 markets in Asia worked closely with regulators, infrastructures and local market participants to devise and implement market-wide responses to COVID-19. We have also been able to fast track digital agenda items with our clients, notably in two areas.

The first has been the acceleration of the phased roll out of a digitized client on-boarding process. This process is supported by an electronic workflow platform where all on boarding activities will take place, and electronic signatures will be facilitated by DocuSign. Our workflow platform also features a fully digital storage system, where paperwork submitted by clients is stored and labeled centrally, eliminating the need to ever resubmit a form. We are rolling this out across our network in a phased manner.

The second has been the varying opportunities provided by Application Programming Interfaces (APIs) to improve integration between our and client systems, drive efficiency gains and act as a contingency mechanism which has allowed us to open new servicing models across our business. Potential deployments include online data dissemination, reporting and accepting trade instructions.

GI: Did digitization suit some clients more than others?

BM: Part of the momentum for the shift to APIs came from the benefits around contingency mechanisms. These have been most fully embraced by those clients whose contingency processes did not lend themselves well to dealing with the initial phases of the COVID-19 crisis. To them, the benefits of APIs in creating genuinely robust firm-to-firm (F2F) connectivity, were particularly compelling.

Most of our clients have realized significant productivity gains, in addition to substantive risk mitigation as we transitioned into a more digital environment. However some clients, markets and functions are clearly more advanced than others in terms of their digitization journey.

Many had previously underestimated those benefits, and the dramatic progress in recent months has demonstrated the return on investment of digitization initiatives and opened their eyes to other areas or key processes that may benefit from a focus on automation. Our clients have been able to optimize their own contingency and digitization processes by leveraging our investment in this area.

GI: How will the COVID-19 crisis shape the future direction of travel for the sector?

BM: COVID-19 has dramatically changed all of our perceptions of what's possible. A year ago, no-one would have believed that the entire industry would process its highest volume days, across multiple markets globally, during a period of unprecedented volatility while 80-90% of our staff were working from home.

We've made enormous and quick gains in the regulatory appreciation of the benefits of digitization in addition to a more practical understanding of how to deploy our teams in a massively distributed working environment. Regulatory changes that would have taken a much longer time to achieve were fast-tracked in days.

However it's important that we don't lose momentum or slip back into old habits or manual processes. Once we emerge from this crisis, there will be a natural inclination to revert to mean and that will reduce overall productivity and the efficiencies and risk mitigations we've gained.

The COVID-19 pandemic has also forced the industry to think more broadly about systemic risks. Historically we've viewed risk as being somewhat business or geography specific. Natural disasters and political turmoil tend to be market-specific. Increasingly we'll need to think about risk and infrastructure on a genuinely global and systemic basis. For Citi that means taking a much more holistic approach to managing risk on a collaborative basis with our clients. It will be much more about how we manage risk on a firm-to-firm (F2F) basis then on a market by market basis and that will require a much more strategic level of engagement. ■

waivers for market making activities, ETF trading and stock lending."

Peru is also a member of Mercados Integrados Latinamericanos (MILA), alongside Chile Colombia and Mexico. The initiative was set up to create additional investment opportunities through the integrations of member countries' stock exchanges and depositories.

Diego Castro, Head of Securities Services at Citi, said: "We have been working closely with the central securities depository, Cavali, regulators and local brokers to adopt a true Delivery-versus-Payment (DVP) settlement through Cavali in order to include both the securities and cash portions of the trade. Currently, Citi settles the cash portion of the trade outside of Cavali through the local brokers while the securities leg settles directly with Cavali."

Castro added: "Adoption of this true- DVP settlement process will reduce counterparty risk and streamline future settlements. We are working together with Cavali to improve the settlement model and identify any regulatory changes required to facilitate market implementation. As we continue to make progress, we hope to start the adoption of this model before the end of 2020."

UNITED STATES

Unweighted	Score
BNP Paribas Securities Services	5.48
Citi	5.29

Weighted	Score
Citi	5.15
BNP Paribas Securities Services	3.52

Florent Thiry, Americas' head of financial intermediaries and corporates, BNP Paribas Securities Services observes that the US post-trade industry is accelerating its mutation.

"Over the past few years, DTCC has undertaken an aggressive analysis of its core clearing and settlement processes, aiming to further modernise the backbone of the US capital markets infrastructure. Following the move to

T+2 in 2017, the US CSD has constantly proposed new solutions to optimise settlement."

In 2020, DTCC is going a step further by exploring the application of DLT in its process to enhance settlement and reduce cost and risk for the industry.

DTCC's proposals are contained in two case studies that advance the organisation's efforts to evaluate new ways to enhance post-trade processes through the digitalisation of assets. The case studies – Project Ion and Project Whitney - are the latest efforts by DTCC to examine the potential use of DLT, asset digitalisation and other emerging technologies.

Project Ion seeks to build on DTCC's successful efforts over the past number of years to further optimise the settlement process in the public markets, while Project Whitney considers opportunities to provide increased levels of digitalisation throughout the private market asset lifecycle.

URUGUAY

Unweighted	Score
Banco Itau	5.22

Weighted	Score
Banco Itau	7.43

Uruguay's exchange, Bolsa de Valores Montevideo (BVM), trades equities and fixed income products, and is able to trace its roots back to 1867. Unlike the other Latin American exchanges, BVM still operates an open trading floor and settles its trades directly with the Central Bank of Uruguay, rather than through a central securities depository.

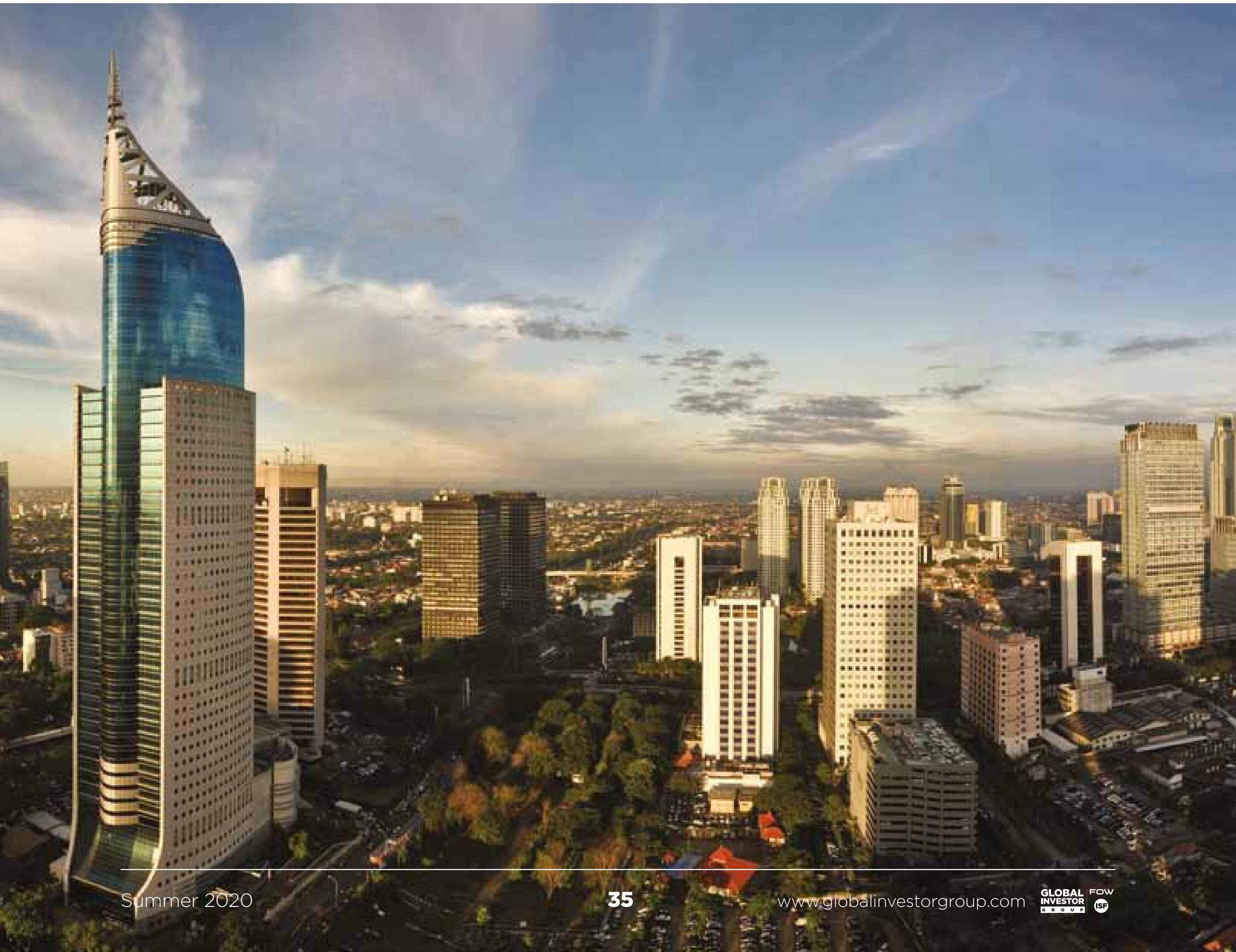
Uruguay's central bank also acts as the clearing agent for the exchange, which has around 35 brokers. Following the trend seen across the rest of the Americas, Uruguay did not impose any short selling bans during the COVID-19 pandemic.

In response to the global pandemic and the impact on Uruguay's economy, the central bank introduced a suite of measures, which included the relaxation of securities policies. The bank ruled that between January 3 and May 31 deficiencies in guarantee deposits that were required to meet the Compilation of Rules of Payments System would "not be considered a deficit". It also cut its bank reserve requirements in a bid to stimulate credit and inject liquidity into the financial market.

The bank declared that financial services companies and exchange houses were exempt from submitting the daily report on the opening and cancellation of security box leases, during the period. ■

Unlike the other Latin American exchanges, BVM still operates an open trading floor and settles its trades directly with the Central Bank of Uruguay, rather than through a central securities depository.

Asia Pacific



AUSTRALIA

Unweighted	Score
BNP Paribas Securities Services	6.25
Citi	5.52
HSBC	5.34

Weighted	Score
HSBC	6.15
Citi	5.34
BNP Paribas Securities Services	3.60

"The main focus of the market is on the ASX CHESS replacement project where Citi was responsible for providing a number of the functional recommendations included in the replacement system," says Andrew Gibson, head of Securities Services, Australia Citi.

The ASX is replacing its CHESS system with distributed ledger technology, which is expected to provide a broader range of benefits to a wider cross section of the market supporting equity processing.

This will result in a move to global standard messaging (ISO20022), efficiency gains and cost reductions via enhanced straight through processing especially for asset servicing and the potential for participants to access the new system via a node.

Mark Wootton, head of custody product, BNP Paribas Securities Services Australia & New Zealand notes that it was the first local custodian to go live with STP ASX announcements (ISO 20022), allowing corporate action messages to be released within minutes.

"The adoption of distributed ledger technology at the ASX will facilitate more innovation and digital products to be brought to the market," he adds.

The ASX recently announced rule changes that allowed for a new type of settlement participant – custodian settlement participants. These participants would, subject to a number of conditions, be able to move securities onto the CHESS sub-register without sending paper transfers to the share registry.

BANGLADESH

Unweighted	Score
Standard Chartered	4.31

Weighted	Score
Standard Chartered	6.20

The Dhaka Stock Exchange, located in Motijheel, Dhaka, is one of the two stock exchanges of Bangladesh.

The Bangladeshi exchange offers equities, mutual funds, corporate bonds, treasury bonds and debentures. DSE has initiated steps to explore and ultimately launch various new tradable products starting with Exchange Traded Funds to be followed in the long term by expansion of current product offering to include Convertibles, Bonds, Shariah Compliant Products including Sukuk, ETFs and REITs.

The DSE OTC Market provides an alternative to stock exchange listing for securities of issuers that either choose not to be listed on Dhaka Stock Exchange or not to meet the relevant listing requirements.

The exchange's Automated Clearing and Settlement System (CnS) is developed to automate all post trade activities regarding clearing and settlement. Its main stakeholders are Brokerage houses, CDBL, Clearing Banks and DSE Finance Division.

In the settlement process, DSE receives all charges and AIT from buying and selling brokers. DSE also receives receivable amount from buying brokers and earmarks selling shares in selling broker clearing accounts through CDBL settlement schedules.

In clearing process, DSE makes payment by credit instructions and delivery of shares through CDBL clearing schedule to the buying broker.

M Nazmul Hasan, Head of Securities Services, Bangladesh at HSBC, said: "2020 is a very different year for Bangladesh economy and capital market. The Bangladesh economy was hit by Covid-19 even before the virus reached to the country. Supply chain interruption and economic slowdown badly impact the capital market as well. As a result, we observed a selling spree and index declined during the first quarter of the 2020. The securities regulator quickly responded to the situation and amended the calculation method of opening price and floor limit of the circuit breaker. But that could not stop the free fall of index."

Hasan said: "The Government declared holidays from March 26 2020 to contain the spread of covid-19 and extended every two weeks. Since then the stock markets remain closed. Dhaka Stock Exchanges proposed to commence trading through online platform and seek approval from Bangladesh Securities Exchange Commission (BSEC) but the decision is still pending.

"The Government announced the appointment of BSEC Chairman along with three new Commissioners on the second week of May 2020. The newly appointed chairman stated in the local media that he will work on changing the mindset that capital market is the main source of long term financing for companies. Central clearing party (CCP) implementation, Govt. securities trading on the exchanges along with other capacity building initiatives will see the lights after Covid-19. Expectations are high from the securities regulator in the coming days," he concluded.

CHINA

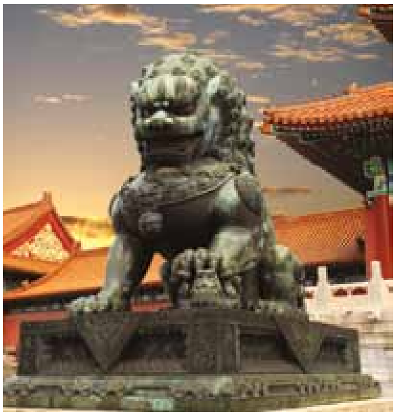
Unweighted	Score
BNP Paribas Securities Services	6.54
Deutsche Bank AG	6.05
HSBC	5.64
Standard Chartered	5.04
China Construction Bank	3.47

Weighted	Score
HSBC	7.15
Standard Chartered	6.07
BNP Paribas Securities Services	5.27
China Construction Bank	4.86
Deutsche Bank AG	4.72

In May 2020, People's Bank of China (PBOC) and the State Administration of Foreign Exchange (SAFE) removed restrictions on investment quotas for QFII and RQFII schemes, greatly expediting market access since qualified investors will only need to submit a one page registration form to SAFE explains Boon-Hiong Chan, global head of securities market development & advocacy, corporate bank at Deutsche Bank.

Gary O'Brien, head of custody product for Asia Pacific, BNP Paribas Securities Services says offshore China Connect schemes are continuing to reform with omnibus account trading made possible, the refinement of FX models and the further integration of Shanghai-London Stock Connect into LSE's Global Equity Segment offering.

"PBOC together with bond central depositories has announced several new rules in 2020, including recycling settlements to avoid failed trades in CIBM; an extended CIBM settlement cycle to provide more operational flexibility to foreign CIBM investors; relaxation of FX hedging with more choice of FX counterparties in China; and direct participation in the China Interbank Foreign Exchange Market by bank type of foreign CIBM investors," observes Vicky Tsai, head of securities services, China Citi.



HONG KONG

Unweighted	Score
Deutsche Bank AG	5.98
BNP Paribas Securities Services	5.94
HSBC	5.78
Standard Chartered	5.04

Weighted	Score
HSBC	6.60
Standard Chartered	6.22
BNP Paribas Securities Services	4.85
Deutsche Bank AG	3.74

In May 2020, Hong Kong Futures Exchange signed a licensing agreement with MSCI to introduce 37 futures and options contracts in Hong Kong, including contracts covering ASEAN and regional emerging markets.

"In April, the Securities and Futures Commission, the Federation of Share Registrars and the HKEX published a conclusions paper on a revised operational model to implement an uncertificated securities market (USM) or dematerialised securities in Hong Kong," observes Boon-Hiong Chan, global head of securities market development & advocacy, corporate bank at Deutsche Bank.

Last year saw the launch of new fund structures via the OFC vehicle; a significant shift towards passive investment models through the issuance of new ETFs; and a continued focus on cross-border access programmes, such as refinement of the China-Hong Kong Connect schemes, which have seen a significant uptick in investor volume, explains Gary O'Brien, head of custody product for Asia Pacific, BNP Paribas Securities Services.

"For Stock Connect, the concept of the Master SPSA is being launched by Hong Kong Exchange (subject to SFC approval) and will assist fund managers managing a large number of individual SPSA to execute trades and handle the subsequent settlement allocation with multiple custodians more effectively," adds Pat Wan, head of direct custody clearing & broker outsourcing operations, Hong Kong HSBC.

Edward Tse, head of Securities Services, Hong Kong Citi notes that the removal of the Stock Connect aggregated net buy quota has improved access to China A-share market for global investors.

INDIA

Unweighted	Score
BNP Paribas Securities Services	6.80
HSBC	5.45
Deutsche Bank AG	4.99

Weighted	Score
Deutsche Bank AG	6.88
HSBC	6.47
BNP Paribas Securities Services	5.47

Reforms implemented by the Securities and Exchange Board of India (SEBI) in September 2019 and subsequent operational guidelines and circulars have simplified the compliance framework for foreign investments.

Also, in order to attract long term and stable FPI investments into debt markets, the Reserve Bank of India launched a new scheme called the Voluntary Retention Route (VRR) which provides certain relaxations and operational flexibility to FPIs. Investments through this route are not included in the FPI's regulatory investment limits.

"Dividend Distribution Tax has been abolished and dividend income will now be added to the taxable income, which will help foreign investors to pay reduced taxes and claim credit in their countries for all taxes paid in India," explains Nicolas Gonzalez, deputy managing director of SBI-SG Global Securities Services.

Recent changes to foreign portfolio investor and foreign direct investor regulations have increased international attention on the Indian market making it a preferred destination for investors adds Vaisshali Babu, head of product development and market intelligence, BNP Paribas Securities Services India.

"To allow ease of doing business in the securities market, SEBI released e-KYC guidelines in April 2020 that simplified the KYC process and made use of technological innovations such as electronic signatures to facilitate online KYC," says Boon-Hiong Chan, global head of securities market development & advocacy, corporate bank at Deutsche Bank.

INDONESIA

Unweighted	Score
HSBC	5.82
Standard Chartered	5.03

Weighted	Score
Standard Chartered	6.18
HSBC	6.02

Kustodian Sentral Efek Indonesia (KSEI), Indonesia's central securities depository (CSD), went live in late February 2020 with a new solution from Nasdaq.

The new system provides KSEI with increased speed and capacity, operating at 40 times faster than the CSD's previous system and managing up to 80,000 settlement instructions per minute, the market technology provider said.

Uriep Budhi Prasetyo, president director of KSEI, said: "The exceptional partnership that evolved between KSEI and Nasdaq resulted in a robust and dynamic solution that enables us to process larger volumes of transactions with speed and agility."

He added that the adoption of the new platform "supports the expansion of Indonesia's capital markets and the growing number of investors in the region".

The offering from Nasdaq is a multi-asset, multi-currency post-trade solution for settlement, depository, corporate actions and asset servicing to support the full scope of services offered by CSDs globally.

"By upgrading its CSD technology, KSEI has gained scalability and capacity through a stable technology core product that will bolster its position in the region as the market continues to grow," stated Robert Frojd, Nasdaq's managing director, South Asia, Southeast Asia and Pacific.

Lilian Halim, Head of Securities Services of Indonesia at HSBC, said: "Indonesia capital market regulator continues to invest heavily in system enhancements and market infrastructure development to keep up with market trends. After successfully launching the on exchange settlement cycle change from T+3 to T+2 in November 2018, the market becomes fully true DVP in 2019 with the implementation of Central Bank Money for all IDR trades at the KSEI for all market participants, whereas previously the settlement of KSEI was done through selected payment bank vendors."

She added: "In addition, the Self Regulating Organisations continue on its best practice implementation based on

other more developed markets. With the support and strength of HSBC networks across regions, we are pleased to be able to connect KSEI representatives with DIFC and Nasdaq Dubai in Dubai in October 2019 to assess and explore the blockchain technology related to e-KYC platform on development in UAE."

Halim said: "The long awaited electronic General Meeting system, in cooperation with Turkish MKK, has also finally launched in May 2020 in one of the OJK's responses for market efficiency and also to combat the spread of COVID-19 in a market on which physical attendance was required."

She added: "In the area of tax, being a common issue and challenge for foreign investors worldwide, was vastly simplified effective 1 Jan 2019 with a revised DGT tax form applicable to all type of investors and can be provided just once for a maximum of 12 calendar months.

"Again understanding the current challenges of COVID-19, Indonesia Tax Authority (DGT) has also approved the use of soft copy of the DGT tax forms for filing foreign investors' tax treaty rate (with the original copy still mandatory once the pandemic has passed) and digital signatures for jurisdictions who have previously applied the method to support the affected areas due to this COVID-19 circumstances."

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Robert Frojd, Nasdaq, South Asia, Southeast Asia and Pacific.

JAPAN

Unweighted	Score
Mizuho Bank Ltd	6.70
HSBC	5.83
The Bank of Tokyo -Mitsubishi UFJ	5.48

Weighted	Score
The Bank of Tokyo -Mitsubishi UFJ	6.77
Mizuho Bank Ltd	6.13
HSBC	5.44

The first expiry date of the Japan Bond Income Exemption scheme (J-BIEM) application is 31 December 2020. J-BIEM application forms submitted on or before 1 January 2016 are required to be renewed by clients, in order to be continuously qualified for the tax exemption on bond incomes.

"In line with business consolidation between Japan Exchange Group (JPX) and Tokyo Commodity Exchange (TOCOM) they are also consolidating their clearing organisations by transferring clearing operations of commodity products by Japan Commodity Clearing House (JCCH) into Japan Securities Clearing Corporation (JSCC) in July 2020," observes Yasuhiro Yanakawa, head of securities services, Japan Citi.

Yasuhiro Ohno, head of custody sales and client services team at Mizuho Bank notes that the Ministry of Finance released governmental orders for the enforcement of the amended Foreign Exchange and Foreign Trade Act (FEFTA) coming into effect from May. Under the revised FEFTA, the threshold for prior notification requirements on foreign investors as to the investment into Japanese companies in strategic industries under FEFTA is lowered from 10% to 1%.

"The Financial Services Agency of Japan (JFSA) has also revised a cabinet order and extended the deadline for statutory disclosure reports (securities reports due from 20 April to 29 September) to the end of September 2020."

MALAYSIA

Unweighted	Score
HSBC	5.82
Deutsche Bank AG	5.66
Standard Chartered	5.41

Weighted	Score
Standard Chartered	6.70
HSBC	6.69
Deutsche Bank AG	3.53

Malaysia's stock exchange, Bursa Malaysia, completed in November its first securities lending and borrowing proof-of-concept (PoC) blockchain technology solution.

The test, dubbed SBL POC 1, was executed and tested with technology partner Forms Synton Information, a subsidiary of Shenzhen Stock Exchange-listed Shenzhen Forms Syntron Information Company.

In a statement, Bursa Malaysia said the product has been designed to "increase the efficiency, speed and capacity" in the securities lending market.

"A first of its kind in the Association of Southeast Asian Nations (ASEAN), SBL POC 1 was executed using an agile methodology comprising robust design thinking, development and testing stages," the exchange added.

The organisation labelled its operation a "successful test of a private-permissioned blockchain-driven SBL lending pool", claiming that it can improve market discovery, create increased efficiencies, building transparency and trust.

"It has secure, shared ledgers and smart contracts which enable instant and automated update of asset status. Information stored in the ledger, like records of trade negotiations and order confirmations, are immutable, auditable and traceable. It avoids the need for manual reconciliation, which may introduce errors due to disparate methods of trade negotiation and order confirmation recording," it stated.

This PoC was the "kick-off" to a longer-term holistic approach that will look to leverage emerging technology and address challenges in Malaysia's securities lending market.

Commenting on the announcement, Datuk Muhamad Umar Swift, CEO of Bursa Malaysia, said: "Evidence shows that a vibrant SBL market is one of the key characteristics of a developed capital market. As such, it is imperative that we tackle the operational challenges of today with a technologically driven solution that is flexible and scalable into the future."

Also involved were industry collaborators Affin Hwang Investment Bank Berhad, CGS-CIMB Securities, Citibank Berhad, Kumpulan Wang Persaraan and Malacca Securities.

The Securities Commission Malaysia (SC) said in February it would offer more flexibility in asset allocation for private retirement schemes (PRS).

Datuk Syed Zaid Albar, chairman of the SC, commented: "The PRS industry offers Malaysians an alternative channel to supplement their retirement saving.

"These liberalisation measures were adopted after a robust review process undertaken by the SC, in consultation with the industry and Private Pension

Administration Malaysia, to encourage PRS members to grow their investments."

Aloysius Wee, Head of Securities Services, Malaysia at HSBC, said: "In 2019, Bank Negara Malaysia announced various development initiatives aimed at improving market efficiency, accessibility and liquidity in the domestic financial market, which amongst others, allow global custodians and trust banks to apply and undertake dynamic hedging on behalf of their underlying non-resident clients, including via Approved Overseas Offices (AOO). Simultaneously, FX transactions and documentation processes continue to be improved and simplified through the clarifications that have been made on Third Party FX and the issuance of minimum due diligence for FX transaction guidance documents."

Wee added: "Amid the global outbreak of Covid-19, the Financial Markets Committee has issued a statement that the Malaysian financial markets continue to function efficiently with ample liquidity. The orderly manner in which the ringgit FX and bond markets are functioning reflects the maturity of the Malaysian financial markets to fulfil the needs of all stakeholders. Financial markets also continue to provide efficient intermediation of funds within the economy."

Earlier this year, Bursa Malaysia implemented ISO 20022 messaging standards for corporate announcements by Public Listed Companies. "Bursa has also embarked on the Modernisation of Post Trade Infrastructure Project (MOPTI), a multi- year transformation strategic project to enhance the efficiency and future proofing perspective on post trade services for the industry," Wee said.

Wee concluded: "Additionally, Bursa recently amended its market listing requirements to provide securities holders with an option to subscribe for rights shares, etc. electronically. HSBC is supportive of these initiatives given their ability to elevate Malaysia's competitiveness in the regional marketplace while greatly benefiting investors and clients in the country. HSBC being a significant custodian and global markets service provider in the Malaysian market continues to support our customers and contribute to the orderly functioning of the domestic financial markets."

NEW ZEALAND

Unweighted	Score
HSBC	5.79
BNP Paribas Securities Services	5.29

Weighted	Score
HSBC	6.59
BNP Paribas Securities Services	2.85

New Zealand's stock exchange NZX operates NZX Clearing, which oversees its Central Counterparty (CCP) Clearing House and Securities Depository.

The Clearing House ensures the orderly settlement of all on-market trades. It clears all trades made on the NZX Main Board, NZX Debt Market and Derivatives markets, as well as the Fonterra Shareholders' Market.

The Securities Depository provides Participants with efficient settlement of on and off-market trades, securities safekeeping services and offers Participants a securities lending facility.

The Clearing House and Securities Depository are essential infrastructure for New Zealand's capital and financial markets. NZX Clearing safeguards market integrity by fulfilling the industry's need for stable infrastructure built around the primary task of clearing and settling on-market trades.

Participants that hold securities within the Securities Depository may choose to lend these to Clearing Participants, allowing them to earn additional income for the beneficial owners. The Clearing House acts as the central counterparty to these transactions also.

NZX Clearing operates the BaNCS Market Infrastructure platform ("BaNCS") provided by Tata Consultancy Services. BaNCS interfaces with several NZX systems and Participant connectivity is available through 15022 messaging over TCP/IP or the SWIFT network or via a web-based user interface.

The system also operates a direct connection to NZClear via the SWIFT network to ensure Participants can seamlessly transfer securities between the NZX Clearing Depository and the NZClear system operated by RBNZ.

NZX Clearing has over 20 clearing and depository clients including the local representatives of BNP Paribas, Deutsche Bank, Macquarie, UBS and WestPac.

Mark Wootton, Head of Custody Product, BNP Paribas Securities Services Australia & New Zealand, said: "In New Zealand, BNP Paribas is the fastest-growing custodian with a 30% share of the NZ Kiwisaver market. We have been working with the New Zealand's Exchange (NZX) on transforming the market via different initiatives.

"With the support of New Zealand's government in 2010, BNP Paribas became a founding participant on the newly launched NZX dairy derivative market, remaining the sole bank clearing participant for dairy derivatives in New Zealand today. The NZX Dairy Derivatives market has become the leading price benchmark for internationally traded dairy products."

Wootton added: "BNP Paribas Securities Services is the first and only global custodian to be accredited as a depository participant of the New Zealand Clearing and Depository Corporation Limited. This recognition enables us to offer market participants an agnostic approach to depository and settlement channels and creates opportunities to bring the sell and buy side closer together. We are also the first global custodian to adopt STP NZX announcements (ISO15022) resulting in the release of Corporate Actions within minutes as the golden source.

He conclude: "Committed to the continual development of the New Zealand Capital markets, BNP Paribas is now partnering with the NZX to develop Third Party Clearing (TPC) to further enhance operational efficiency and to bring the TPC model to New Zealand by the first half of 2021."

PAKISTAN

Unweighted	Score
Standard Chartered	4.77

Weighted	Score
Standard Chartered	5.68

In January 2020 the Securities and Exchange Commission of Pakistan (SECP) revamped its initial public offering regime to make the IPO process simple, cost effective and more efficient.

The amendments in IPO Regulations 2017 have been made after consultation with market participants with an objective to promote capital formation by facilitating issuers and safeguarding the interest of general public by enhancing disclosures.

In the new set of regulations, the objective eligibility criteria for listing of companies have been simplified to promote capital formation. Issuers that have a track record of less than three years and were not making profit over last two years are allowed to raise capital from the securities market, although they are required to submit a business plan and provide enhanced risk disclosures in the offering document for prospective investors.

The requirement for submitting audited accounts has been reduced from five to two years and the time frame relating to submission of progress reports by the issuer has been increased from quarterly to half yearly.

In order to encourage foreign investment, the book runner has been allowed to waive the margin requirement of the institutional investors, including foreign investors. Moreover, related parties have been allowed to perform different roles in the same IPO transaction.

The new IPO regime is a shift towards disclosure-based regime. Disclosures pertaining to principal purpose of the issue, risk factors, share capital, financial information, management of the issuer, legal proceedings and overdue loans have been made part of the prospectus.

A new section titled summary of the prospectus has been introduced to help investors better understand the offering document.

PHILIPPINES

Unweighted	Score
Deutsche Bank AG	6.14
HSBC	5.69
Standard Chartered	5.29
Citi	4.95

Weighted	Score
Standard Chartered	6.52
HSBC	6.46
Deutsche Bank AG	4.96
Citi	2.88

The Republic of the Philippines, made up of over 7,000 islands, has maritime borders with Taiwan, Japan, Indonesia, Malaysia, Vietnam and China. Named after Philip II of Spain, the Philippines is an emerging economy that is transitioning from agriculture to manufacturing and services.

The economy is one of the best performing in the Asia region, having grown by more than 6% this year, following up on a strong 2019. Economists have high hopes for the south-east Asian country and predict its economy will become the largest in the region in the next 30 years.

The Philippine Stock Exchange (PSE) is the only stock exchange in the Philippines. It is one of the oldest stock exchanges in Asia, having been in continuous operation since the establishment of the Manila Stock Exchange in 1927. It currently maintains a trading floor at the PSE Tower in Bonifacio Global City, Taguig City. The PSE is composed of a 15-man Board of Directors with Jose T. Pardo as Chairman.

The main index for PSE is the PSEi, which is composed of a fixed basket of thirty listed companies. The PSEi measures the relative changes in the free float-adjusted market capitalisation of the 30 largest and most active common stocks listed at the PSE. There are also six sector-based indices as well as a broader all shares index.

Trading in the PSE is a continuous session from 9:30AM to 3:30PM daily with a recess from 12:00PM to 1:30PM.

The PSE incorporated on May 4 a new three-level circuit breaker, developed by NASDAQ and successfully tested by PSE's Market Operations Division. This new three-level circuit breaker setup was introduced by PSE to help manage increased volatility in the stock market.

"We have seen unprecedented market volatility in reaction to uncertainties caused by the COVID-19 crisis. Our first step to address this volatility was to reduce the lower static threshold of securities from 50% to 30%. We followed this up with the addition of two circuit breaker levels to give the entire market a breather when these are triggered," PSE President and CEO Ramon S. Monzon said.

Maris Flores, Head of Securities Services for the Philippines at HSBC, added: "In 2019, while GDP growth of 5.9% is lower than the government's target, the Philippines remained one of the fastest-growing economies in Asia. The country's macroeconomic fundamentals remained strong in the past year as evidenced by credit rating upgrades from S&P (BBB+ with Stable outlook) and Fitch (BBB with Positive outlook), which contributed to the attractiveness of the Philippines as an investment destination."

Flores continued: "The regulators leveraged on this and continued to pursue new investment products and options. In the debt market, the Bangko Sentral ng Pilipinas (BSP) is now on track to issue its own debt papers by 2H 2020 given the passage of Republic Act (RA) No 11211 (or the New Central Bank Act). On the equities side, the implementing rules and regulations governing Real Estate Investment Trusts (REITs) have been finalised and approved, and the Philippine Stock Exchange's (PSE) short selling program is just pending implementation."

The government's comprehensive tax reform program further aims to make the country more attractive to investors through the Passive Income Financial Intermediation Tax Act (PIFITA) , which aims to simplify capital income and financial intermediary taxes, and Corporate Income Tax and Incentives Rationalization Act (CITIRA) Bill , which proposes to lower corporate income tax rate.

Flores said: "To complement the government's actions, we also look into areas where technology can be leveraged on for efficiencies across the market players. For instance, HSBC Philippines recognises the value and potential use cases of the Distributed Ledger Technology (DLT), so we initiated discussions with the BSP and submitted a white paper on the use of cloud and DLT to simplify the registration and reporting of investments across all market participants. Moreover, with the experience we had from the COVID-19 pandemic so far, we continue to find areas where we can shift to digital and be more resilient across the market."

She added: "New products and enhancements in market infrastructures and operations are well on track despite the challenges brought about by this pandemic, like the upcoming ISO 20022-compliant real time gross settlement (RTGS) system called PhilPaSSplus, which the BSP expects to launch within April to May 2021; and the development of the new clearing and settlement system of the Securities Clearing Corporation of the Philippines (SCCP), which is targeted to be launched in 2H 2021 ."

> "In 2019, while GDP growth of 5.9% is lower than the government's target, the Philippines remained one of the fastest-growing economies in Asia."
>
> **Maris Flores, HSBC**

Tiffin Tanseco, Head of Securities Services, Philippines at Citi, commented: "The Philippines experienced accelerated growth in 2019 with a GDP rate of 5.9% and low inflation, and is considered as one of the most promising economies in Asia Pacific. This momentum has been supported by market developments that aim to stabilize the financial system and encourage investments in the country."

Tanseco continued: "Citi Philippines has been working with the Bureau of Treasury (BTr) to encourage foreign participation on bond issuances. At the same time, clients have been seeking help in getting tax-exempt status and tax reclaims on their BTr holdings. We were able to arrange a face-to-face meeting with the Treasurer of the Philippines, our clients, and their tax agents. The Treasurer heard firsthand on the barriers and other issues around PH issuances. This meeting resulted in changes in the BTR process and requirements in recognizing exempt entities as well as refunds."

Tanseco said: "The Philippines Securities and Exchange Commission (SEC) has issued several regulations on Code of Corporate Governance for registered issuers and public companies, the Independent Oversight Entity (IOE) for Asset Managers, and the rules on Real Estate Investment Trusts, a new asset class in the market.

"These developments strengthen the competitiveness of local market players, enhance the supervision of the SEC, and help in the overall development of the capital market. To supplement the IOE discussion, Citi Philippines hosted a workshop with the SEC about the role and function of a custodian, and fund administrator for asset managers as endorsed by the Philippine Investment Fund Association. Citi Philippines also provided comments based on our local expertise, as well as feedback on the IOE implementation from our regional partners. To date, we are still coordinating with the SEC to go live with the IOE requirement for mutual funds this year," Tanseco concluded.

SINGAPORE

Unweighted	Score
Deutsche Bank AG	5.94
HSBC	5.75
BNP Paribas Securities Services	5.73
Standard Chartered	5.10

Weighted	Score
HSBC	7.12
Standard Chartered	6.12
BNP Paribas Securities Services	5.49
Deutsche Bank AG	4.19

One of the issues in focus in Singapore last year was prioritising the introduction of multiple settlement runs explains Gopu Maniam, head of direct custody clearing, Singapore HSBC.

"SGX introduced optimisation runs in place of the 'earmarking' process, which resulted in a lack of certainty for trade settlement statuses and called for efforts to monitor, report and manage failing trades," says Maniam. "Yet the process that was adopted to review and highlight potential fails posed challenges for market participants and to the stock borrowing and lending activities of institutional investors and intermediaries."

The Monetary Authority of Singapore started to make its register of bonds held by CDP the classification of qualified debt securities (QDS) available for public access from March 2020.

"This information is important for investors as bonds which are QDS have tax benefits, mainly exempted form withholding tax," says Gan Lai Chun, head of Securities Services, Singapore Citi. Prior to this there was no single 'golden' source to refer to.

"Leveraging on the growing adoption of DLT in Singapore, we plan to partner with Singapore-based clients and develop a series of value added smart contract applications to be deployed on a common permissioned DLT," says Siraz Mouhamadmoussa, head of custody product, BNP Paribas Securities Services Singapore.

SOUTH KOREA

Unweighted	Score
HSBC	5.81
Standard Chartered	5.01

Weighted	Score
HSBC	7.33
Standard Chartered	4.01

Since 1 January 2020, collective investment schemes are allowed to claim themselves as a single beneficial owner, provided the scheme is liable to tax in its resident country and was not established for the purpose of tax evasion in Korea.

"Korea's Financial Services Commission (FSC) announced that Korea had implemented the Asia Regional Funds Passport in May 2020," says Boon-Hiong Chan, global head of securities market development & advocacy, corporate bank at Deutsche Bank. "The Ministry of Economy and Finance has announced plans to allow fintech companies to provide FX and fund transfer services and the FSC has launched a trading venue for financial data as a move to facilitate data analytics services."

HSBC has delivered feedback and recommendations to the Ministry of Economy and Finance on the draft revised tax forms.

"We made a proposal to the Korea Securities Depository (KSD) to form and lead a team to implement account operator in Korea," says Ariel Navarro, head of securities services, South Korea Citi.

Account operator allows KSD members to grant access to third party agents to perform post-trade activities on their behalf under a power of attorney, meaning members do not have to invest in infrastructure that connects their settlement systems to KSD.

SRI LANKA

Unweighted	Score
HSBC	5.03

Weighted	Score
HSBC	6.89

The Colombo Stock Exchange (CSE), which lists equities and bonds, has 289 companies representing 20 GICS industry groups at the end of May 2020.

The Central Depository Systems (CDS), a fully owned subsidiary of the Colombo Stock Exchange (CSE), bolstered its client portfolio in Corporate Action services and Registrar services in early 2019. The move by CDS to introduce new services comes as a number of depositaries around the world are expanding on their traditional role to be more customer facing, by offering new services and leveraging on technology.

Head of CDS Nalin Fonseka said at the time: "Marking a new era in our journey, CDS announced the launch of corporate action services and registrar services to develop into a more customer centric and customer focused organization. We welcome Distilleries and Melstacorp to our portfolio and look forward to honoring the trust placed in CDS with service excellence. We are confident that engaging CDS will allow the companies to significantly improve their efficiencies when dealing with the capital market as well as pave the way to enhance investor relations."

Shehan Patteson, Head of Securities Services for Sri Lanka, at HSBC said:

"Discussions around the launch of DVP took center stage in the Sri Lankan equity market during the past year. The Colombo Stock Exchange conducted several focus groups and briefings on DVP involving all market participants including brokers and custodians. This will bring significant changes to the markets operating / settlement model, one of which being the requirement for custodians to place margins for client trades. DVP was originally planned for a 2020 launch which seems challenging given the current market situation."

Patteson added: "The amended SEC Act is also a much anticipated change in the market which has been drafted and is going through the approval process. The Act will pave way for creating a CCP, demutualization of the exchange and creating a more dynamic market environment. Market Liquidity also remains a challenge which needs to be addressed with large entities such as SOE's listing in the Colombo Stock Exchange."

Mihiri Krishnamoorthy, Head of Securities Services, Sri Lanka at Citi, said: "The Colombo Stock Exchange continues to work on its initiative to move towards a DVP settlement model, and the timeline for implementation is approximately Q4 2020/Q1 2021. Citi Sri Lanka has supported and emphasized the importance of reducing the settlement risk that investors face when selling shares, as the shares move out of the investors account on the trade date and cash settlement is received on a T+3 basis."

She added: "The Central Depository system as part of their digitization initiatives is working on digitizing the account opening process, E IPO and E Voting, of these we expect account the opening initiative to be implemented by Q2 2020."

Krishnamoorthy concluded: "Citi Sri Lanka has automated the booking of trade settlement value, requiring the execution of a FX transaction through our proprietary auto-FX single pipe platform, enabling a quicker turnaround as well as reducing margin errors and the timely receipt of a MT300 FX confirmation."

TAIWAN

Unweighted	Score
Standard Chartered	5.48

Weighted	Score
Standard Chartered	7.52

2019 marked the 30th anniversary of the Taiwan Depository and Clearing Corporation (TDCC) and in light of by Taiwan's financial regulator tightening its regulation surrounding security token offering (STO), the TDCC announced it would continue the function of STO's through its e-Passbook tool. The one-stop platform helps investors check the balances of their stock and mutual fund investment accounts.

The Taiwan Stock Exchange Corporation (TWSE) launched its corporate social responsibility (CSR) report on June 18 2019, the first of its kind from the exchange to showcase its commitment to environmental, social and governance (ESG) aspects in order to fulfil its CSR. The report focuses on five themes – the way to sustainability, successful governance, the right approach to finance, compassionate employees and embracing society. As on 2018 end, TWSE reported that 345 (37%) of its listed companies filed their CSR reports, reaching a record high for the exchange that has been promoting CSR reporting since 2015. Alongside this initiative, Taiwan's first ESG Index was launched and as of 2018 end it had seventeen exchange-traded funds (ETFs) listed. The TWSE signed a memorandum of understanding with the Korea Exchange and Japan Exchange Group to promote all three markets moving forward.

Eric Jai, Head of Direct Custody and Clearing for Taiwan at HSBC, said: "2019 was a great year with the TAIEX index increased by over 20%. The market participants were continuously working on market efficiency and product innovation. The Ministry of Finance (MoF) agreed with HSBC's suggestion to build up an on-line platform to centrally record FINIs' income and tax payment records for tax guarantor's smooth auditing work."

He said: "The Central Bank confirmed HSBC's proposal on a simplified earnings calculation formula to facilitate FINI's earning repatriation. Per the suggestion from HSBC, the Securities and Futures Bureau has announced full market implementation on TDCC Virtual Matching Utility (VMU) for more efficient pre-matching and affirmation of trades between brokers and custodian banks."

Jai added: "The custodian working group chaired by HSBC has formed a standard template for SBL trade pre-matching and assisted the MoF in setting CRS rules for foreign investors. Furthermore, the Securities Association agreed with custodians to simplify trading account opening/closure procedures. With well preparation by the Taiwan Stock Exchange, continuous trading has been successfully implemented since March 2020."

Hsiao-Chi Wang, Head of Securities

Services, Taiwan at Citi, said: "2019 was a momentous year for the Taiwan market with many changes and developments taking place. Citi Taiwan has continuously advocated on behalf of foreign investors to improve the capital market environment. As a result of these efforts and proactive engagement with local regulators through multiple channels, several initiatives have been announced, including the launch of Continuous Trading in March 2020, the phased introduction of making English translation compulsory for material information produced by Taiwan Stock Exchange (TSWE) listed companies, the expansion of trading hours for odd-lot session by October 2020 and finally the digitization of trade confirmations for Taiwan Depository Clearing Corporation (TDCC) eligible fixed-income instruments which has been tentatively scheduled to take place in late 2020."

Wang added: "Citi Taiwan is also proactively advocating via the Capital Market Committee at the American Chamber of Commerce, to allow Exchange-Traded Notes (ETNs) to be included as one of the applicable financial instruments for Foreign Institutional Investors' (FINI) domestic investment. Consensus was reached with the regulators and with a tentative date for the implementation of this change established as June 30 2020."

Wang concluded: "In 2019, the Taiwan Depository Clearing Corporation (TDCC) established linkage with ISS on STP proxy voting platform to enhance the efficiency of the voting process. In addition, the TWSE and Taipei Exchange listed companies will need to adopt a nomination system for the election of directors and supervisors effective as of January 1 2021."

THAILAND

Unweighted	Score
HSBC	5.90
Standard Chartered	5.48

Weighted	Score
Standard Chartered	7.34
HSBC	6.74

One of the most significant recent developments in this market is the introduction of the Thailand Securities Depository (TSD) e-proxy voting platform which went live in May 2020, says Craig Parkinson, head of Securities Services, Thailand Citi.

In November 2019 the Securities and Exchange Commission (SEC) shared the master blueprint for Thai capital markets, which includes the launch of distributed ledger technology as the new digital platform for capital market transactions.

Boon-Hiong Chan, global head of securities market development & advocacy, corporate bank at Deutsche Bank notes that the Stock Exchange of Thailand has announced plans for a digital asset platform in 2020, while late last year Bank of Thailand and Hong Kong Monetary Authority completed a joint central bank digital currency research project studying the application of such currency to cross-border payments.

"Effective 1 April 2020 (until further notice), Bank of Thailand has granted relaxation to local financial institutions and non-resident investors on the daily ending balance of THB200 million in non-resident baht account and non-resident baht account for securities," adds Utumporn Viranuvatti, head of securities services, Thailand HSBC.

VIETNAM

Unweighted	Score
HSBC	5.56

Weighted	Score
HSBC	7.63

In November 2019, the government of Vietnam issued a new law on securities effective as of January 2021. The new law includes the establishment of a single stock exchange, creating flexibility for new products and market infrastructure – for example, a CCP concept and cash settlement for equities by the central bank.

"Changes also include updates in process and conditions for public offerings, tender offers, buy back treasury stock, corporate bond issuance and corporate governance of public companies," explains Hoang Quoc Hung, head of securities services, Vietnam Citi. "New regulations detailing implementation guidance are expected to be issued soon."

The market also witnessed actions by the State Securities Commission (SSC) for market reclassification by FTSE and MSCI to emerging market status. Identification of gaps and solutions for the upgrade are being discussed intensively, notably on pre-funding.

Whilst there are solutions to the prefunding requirement (including the CCP mechanism), the foreign ownership limit issue still requires support from the government and ministries says James Estaugh – head of securities services, Vietnam HSBC

The draft Investment Law proposes new conditions for foreign investors to access sectors that are currently restricted to local investors and sectors where market access is conditional for foreign investors. ■

Europe

AUSTRIA

Unweighted	Score
BNP Paribas Securities Services	5.89
Raiffeisen Bank International	5.80
Deutsche Bank AG	5.48
UniCredit	5.17

Weighted	Score
UniCredit	6.38
Deutsche Bank AG	5.09
Raiffeisen Bank International	4.17
BNP Paribas Securities Services	3.53

With the Covid-19 pandemic in full force in the first half of the year, and affecting markets significantly notably in March, financial regulators across the world imposed short selling bans to help mitigate the consequences of markets falling. In Europe, Austria, Belgium, France, Greece, Italy, and Spain imposed short selling bans, ranging from one to three months.

When the Vienna Stock Exchange, or Wiener Boerse, released its March monthly volumes, Christoph Boschan, chief of the exchange noted that temporarily banning short selling was the "right step" for the Austrian market. Following backlash from the industry for his views and comments, Boschan defended and clarified his position in an interview with Global Investor and responded to his initial comment made alongside the monthly volumes.

Boschan strongly reinforced that in normal circumstances, he is not in favour of short selling bans. However, "under very special and unique circumstances, for once, I agreed with such an intervention due to the disproportionate decline of the Austrian market because of the temporary massive increase of short sells that hit our comparatively small market," said Boschan.

While he also backed academic research that argues short selling bans can have negative consequences in the long run, he reiterated the importance of looking at the short-term effects. "In the short term, enhanced short selling bans can calm down the market as they limit artificial and additional liquidity on the selling side. One has to clearly distinguish between the short term and the long term effects."

He noted that while those who opposed the short selling bans said the activity contributes to liquidity in the market, things were different during the global pandemic. "It is just as obvious that it is also legitimate to ask, where the positive liquidity provision should be when prices decline sharply and when you put artificial and additional liquidity on the selling side of the order book where it is already too much?," said Boschan. Austria's Financial Markets Authority lifted the ban on May 18 after two months of enforcing it.

Uwe Dreger, Head of Financial Intermediaries & Corporates Client Line, BNP Paribas Securities Services Germany & Austria, said: "As in many other European countries, both Germany and Austria are focusing on the implementation of recent European regulation. A particular focus has been made on CSDR, especially in relation to the penalty regime that it entails. This foresees the initiation of mandatory buy-ins on failed OTC settlements via a so-called buy-in agent (The Deutsche Boerse AG has established an entity which will offer this service)."

> "As in many other European countries, both Germany and Austria are focusing on the implementation of recent European regulation. A particular focus has been made on CSDR, especially in relation to the penalty regime that it entails."
>
> **Uwe Dreger, BNP Paribas Securities Services Germany & Austria**

Dreger added: "In parallel, the transformation of SRD II, the second shareholder rights directive, into local law to facilitate shareholder transparency and increase participation at general meetings with implementation of the new ISO20022 standard will bring significant improvements in proxy services for our clients."

Thomas Rosmanitz, Head of Relationship Management at UniCredit Global Securities Services Austria, added: "With multiple memberships in International Organisations, Central Securities Depositories, Stock Exchanges, National Capital Market Associations, National Market Practice Groups and National Banking Associations, UniCredit Bank Austria is a driving force behind the development of the post-trading industry and a powerful advocate of the interests of our clients."

BELGIUM

Unweighted	Score
BNP Paribas Securities Services	5.69
Deutsche Bank AG	5.34

Weighted	Score
Deutsche Bank AG	4.81
BNP Paribas Securities Services	4.64

Alongside other Euroclear entities receiving their CSDR licences in 2019, Euroclear Bank, the Brussels-based international central securities depository (ICSD), received its licence at the start of December to operate under the new European regulation coming into force in February 2021. The announcement marked Euroclear's sixth entity to receive the licence and the first ICSD to do so. Euroclear Bank's chief Valerie Urbain, commented: "We are delighted to have received our CSDR licence. This has been a significant undertaking and a lot of hard work has gone into this achievement."

Alongisde its CSDR announcement, the ICSD said at the end of November that it would now offer its clients the choice between Euro settlement in both commercial bank and central

bank money by connecting to the ECB Target2Securities (T2S) ecosystem. T2S is the European-wide settlement platform offering centralised settlement in central bank money across European securities markets. Euroclear Bank said it was seeking to reduce European fragmentation during securities settlement by joining the T2S platform to provide a single pool of collateral liquidity across multiple currencies and jurisdictions. Lieve Mostrey, Euroclear Group CEO, said: "Providing direct access to central bank money through Euroclear Bank is aligned to the EU's long standing policy objective of developing a more liquid and efficient financial market infrastructure environment. Our initiative will benefit investors and issuers alike, and contribute to more robust capital markets."

BOSNIA AND HERZEGOVINA

Major changes to regulations impacting the securities market in Bosnia and Herzegovina over the last 12 months refer to amendments of the rulebook on custody-related activities adopted by the Central Registry of Securities Banja Luka.

These amendments now allow the transfer and holding of securities belonging to individuals and corporate entities (including underlying clients of global custodians) to omnibus securities accounts opened in the name of the local custodian bank at the CSD level in the Republic of Srpska.

Amra Telacevic, relationship manager UniCredit Global Securities Services Bosnia and Herzegovina, said: "Changes to regulations impacting the Securities Market over the last twelve months refer to Amendments of the Rulebook on Custody Related Activities adopted by the Central Registry of Securities Banja Luka. These Amendments now allow the transfer and holding of securities belonging to individuals and corporate entities (including underlying clients of global custodians) to omnibus securities accounts opened in the name of the local custodian bank at the CSD level in the Republic of Srpska."

Telacevic added: "Previously, only securities belonging to global custodian banks and investment funds could be transferred to and kept in the omnibus custody accounts opened in the name of local custodian bank, while securities belonging to individuals and corporate entities could only be transferred to and kept in segregated custody accounts opened in the name of beneficial owners. This market change further enhances UniCredit's capability to meet individual customer needs and offer both safekeeping account options to a wider range of investor types."

BULGARIA

Unweighted	Score
Citi	4.93

Weighted	Score
Citi	6.48

Biliana Stefanova, head of GIS Bulgaria Raiffeisen Bank observes that amendments to the Markets in Financial instruments Act were adopted in October 2019. Several other laws were affected, including the Public Offering of Securities Act.

A central securities registry has been created, to be administered by the domestic central depository AD, which will list dematerialised securities issued by companies domiciled in the

Republic of Bulgaria, as well as by issuers whose securities are issued in accordance with the legislation of the Republic of Bulgaria.

SRD2 was transposed into Bulgarian legislation in March 2020 by amendments to the Public Offering of Securities Act. The changes introduce provisions for providing and retaining the necessary identification information for a shareholder, the persons to whom such information may be provided, as well as the persons from whom the relevant information may be requested.

A settlement tolerance limit is expected to be introduced by AD although partial settlement will not be available as the market turnover is too small. Testing with market participants is expected to start in July 2020.

A new SME growth market segment has been created on the Bulgarian Stock Exchange (Bulgarian Enterprise Accelerator Market) enabling SMEs to raise funds via the exchange on easier terms.

Borislav Hitov, Head of UniCredit Global Securities Services Bulgaria at UniCredit Bulbank AD, said: "In the past year, the major market developments in Bulgaria were both regulatory and infrastructure driven. CSDR and SRD II have kept market players busy, especially local CSD's and custodians, by making sure that they are well-equipped for the amendments that both legislative pieces have brought and/or will bring from both a system and procedural point of view. In mid-March 2020, SRD II was transposed in the Public Offering of Securities Act, introducing into the local legislation the new EU-wide regulatory requirements for strengthening shareholders' rights."

Hitov added: "Around that time, following the COVID-19 restrictions, the deadlines for general meetings and issuer's reporting were extended. This also gave rise to the practical need and potentially wider use of electronic voting in the market, including capabilities via the Central Depository AD (CDAD)'s electronic platform for general meetings called EPOS, which the CSD gladly presented to interested parties in May 2020."

CROATIA

Unweighted	Score
OTP banka d.d.	6.73
Privredna Banka Zagreb d.d.	6.64
UniCredit	5.00

Weighted	Score
UniCredit	6.53
Privredna Banka Zagreb d.d.	4.50
OTP banka d.d.	4.27

In January and August 2019, Zagreb Stock Exchange (ZSE) issued a new pricelist. The amendments relate to the fees for listing bonds, maintaining listings on the regulated market and changes in the characteristics of stocks and bonds admitted to trading on the progress market.

In December 2019 the ZSE published new rules, including implementation of a new version of the XETRA T7 trading system – a significant innovation to the trading model for low liquidity stocks. "The main change of the trading model was the difference in the duration of the trading sessions and volatility interruption for the continuous trading and trading model for low liquidity stocks," explains Marina Šonje Tomorad, head of the custody unit at OTP Banka.

The CDCC has initiated a project of harmonising corporate actions. The European Commission has provided funding in order for CDCC to provide the prerequisites for the adoption and implementation of European standards for corporate actions processing.

The CDCC also plans a number of system changes to be harmonised with CSDR provisions on improving securities settlement processes, including processing of batches within the settlement system to be carried out at intervals of 15 minutes; participants being allowed to cancel 'off the market' transactions with secured sale as well as transactions with conditional return; and alignment of fees with classification of services offered by central depositories.

Jelena Bilusic, Head of Relationship Management, UniCredit Global Securities Services Croatia at Zagrebacka banka d.d., said: "During 2019, the Croatian market continued with further infrastructure developments to comply with EU regulations and international standards in order to ensure a stable investment environment. Even though GSS Croatia has a long tradition in providing securities services and carries the reputation of being a leading Croatian custody provider, we anticipate and are intensely preparing for numerous challenges in the near future, the most important being CSDR and SRDII."

Bilusic added: "The Croatian CSD is running a project of harmonisation with provisions of the CSDR, whereby significant portions of these provisions concern settlement discipline in particular, influencing the CSD, its members and other market participants in parts of the buy-in process, settlement fails penalties, supervision of timely settlements, activities concerning instruction matching and tolerance levels for cash settlement amounts. All EU regulations as well as any sanction-related amendments will continue to have the highest priority, influencing and defining our custody business strategy.

CYPRUS

Unweighted	Score
BNP Paribas Securities Services	5.57

Weighted	Score
BNP Paribas Securities Services	5.65

Cyprus has attracted various financial services firms due to its low-tax regime and is popular among wealthy Russians who use Cyprus as an offshore tax haven.

The Cyprus Stock Exchange has 67 listed companies, according to its website, including the Bank of Cyprus, the Hellenic Bank and various insurance, investments and hotel firms.

The Nicosia-based group has 20 members.

The Central Securities Depository and Central Registry (CSD) is operated by the Cyprus Stock Exchange, which is established in the form of a public corporate body. The Council of the CSE is responsible for the management of the exchange. CSD is established in accordance with the provisions of the Securities and Cyprus Stock Exchange (Central Securities Depository and Central Registry) Law 27(I)/1996 as amended.

The CSE undertook to replace the individual shareholder's registries of all issuers that have listed securities at the CSE with the CSD. With the official operation of the CSD in July 2001, the CSE gradually dematerialised all securities and took over the registries of the companies that have securities listed on the CSE.

With the operation of the CSD, the CSE undertook the responsibility for maintaining and recording all changes in the registries such as transfers, pledges, corporate actions, etc regardless of whether the transaction takes place within the CSE (through the trading system) or off the exchange.

The CSD moved to T+2 from T+3 in 2014 in accordance with the Central Securities Depository Regulation (CSDR), which among others aims to harmonise the securities settlement cycles in the European Union.

The CSD has eight Cypriot custodians and eight remote members including BNP Paribas Securities Services, Citibank and HSBC.

CZECH REPUBLIC

Unweighted	Score
Deutsche Bank AG	6.35
Raiffeisen Bank International	5.94
Citi	5.15

Weighted	Score
Citi	6.20
Raiffeisen Bank International	4.46
Deutsche Bank AG	3.53

The Central Securities Depository Prague, a wholly owned subsidiary of the Prague Stock Exchange, offers post-trade services for the Czech Republic investment market. The depository has 29 members including the local arms of Citibank, Clearstream, Deutsche Bank, Euroclear, Raiffeisen, Societe Generale and UniCredit.

The Central Depository said in April it is preparing a new web application for its participants called CDCP Enter. The application will allow mainly manual processing and will be available in the production environment together with the implementation of changes associated with the requirements of CSDR for the settlement discipline in February 2021. However, it will be available for testing in June this year.

> "The CDCP a.s. has obtained the CSDR license in December 2018 and is already perceived as one of the best prepared CSD's in the EU."

Jirí Kopecký, UniCredit Bank Czech Republic and Slovakia

As an ancillary settlement system, the Central Depository became in March a direct participant in the TARGET2 payment system, a clearing system operated by central banks of euro area countries. As of today, therefore, the monetary part of the settlement of euro securities in the CSD takes place only through TARGET2, which means that participants or their settlement banks must be cleared through this payment system if they wish to be able to settle DVP (delivery versus payment) in euros.

Ondřej Dusílek, CEO of the Central Securities Depository, said: "On this day, the domestic capital market is entering the eurozone. We believe that this qualitative shift will be used by issuers to issue book-entry issues of euro-denominated bonds and other securities and by participants and their clients for the risk-free and standard settlement of euro transactions and hedging operations in the central banks' payment system.

Dusílek added: "I would also like to thank the National Bank of Slovakia for the excellent cooperation in the entire process of our entry into TARGET2, both from a technical and licensing point of view."

Jiří Kopecký, Senior Relationship Manager at UniCredit Global Securities Services Czech Republic at UniCredit Bank Czech Republic and Slovakia, a.s., said: "Similar to the rest of the EU countries, the main focus in the past few months has been put towards the market preparations for the main ECSDA projects – CSD Settlement Directive Regulation (CSDR) and Shareholders Directive II (SRD II). Both local depositories on the Czech market (CDCP a.s. for shares and long-term bonds) as well as the Czech Nation Bank (organizing the SKD system for T-Bills settlement) have put tremendous efforts into getting legally and technically prepared for the major changes.

Kopecký continued: "The CDCP a.s. has obtained the CSDR license in December 2018 and is already perceived as one of the best prepared CSD's in the EU. The CNB was licensed shortly after the CDCP a.s. in January 2019. This underlines the recognition of the true importance of these two pan-European regulations.

"It is equally important to highlight the fact that both CSDs have made a clear commitment to support all the respective market participants through ad-hoc and regular meetings, as well as WEBEX and other online trainings, where the new requirements are discussed in great detail by the CSD experts and also provide specialized Communication Manuals outlining the technical standards which must be followed in order to meet the directives' requirements."

DENMARK

Unweighted	Score
SEB	5.68
Nordea Bank	4.35

Weighted	Score
SEB	6.52
Nordea Bank	4.90

Ola Mjorud, head of securities services, Nordics Citi observes that Denmark is currently the only Nordic country that signed up to settle via T2S, the centralised European platform for the settlement of domestic and cross-border securities transactions.

"While the launch itself experienced issues, participants can now expect a cleaner cut between platforms and increased possibilities of harmonisation with T2S standards," says Mjorud. "With regards to omnibus accounts, various improvements to these services should become available in the near future."

In addition, the Danes are working on the introduction of reduction at source for withholding tax, which should put an end to the current reclaim process that the tax agency in Denmark currently applies. Investors will have the ability to apply for preclearance with the Danish Tax Agency to establish tax rate eligibility.

Following Euronext's acquisition of the VPS group in Norway, VP Securities was acquired by Euronext this year. Euronext's position as a CSD operator in the Nordics now rival Euroclear, which operates the CSDs in Finland and Sweden.

In March, VP Securities announced in collaboration with the Danish financial sector that the latter had adopted a simple way of exchanging the unique transaction identifier required under the SFTR via SWIFT and by using the existing VP infrastructure.

ESTONIA

Estonia is the most Northern of the Baltic states and is highly rated for its technology development.

The foundation of Estonian Central Securities Depository in 1994 created the basis for the development of the secondary market based on electronic trading system, which was realised with the founding of the Tallinn Stock Exchange in April 1995 by 10 commercial banks, nine brokerage firms and state institutions. Licensed by the Ministry of Finance, Tallinn Stock Exchange opened for trading on May 31 1996 with 11 securities listed.

Today the exchange lists shares, bonds and exchange-traded funds and is part of US exchange group Nasdaq under its Nasdaq Baltic group of exchanges.

Estonian-listed instruments, like those listed in other Nasdaq markets such as Iceland, Latvia and Lithuania, are settled through the Nasdaq CSD

Nasdaq CSD SE is licensed under the European CSDR and supervised by the respective regulatory institutions. The depository is powered by modern straight-through processing technology connected to the pan-European T2S platform.

Nasdaq CSD established in December 2019 a direct link with Clearstream Banking AG, the German CSD, to facilitate cross-border settlement in T2S markets, giving foreign investors easier and efficient access to the Baltic securities market.

Clearstream customers now benefit from having a single access point to securities issued in Nasdaq CSD without leaving their home country. The single point of access to Baltic securities made Baltic securities available for increased liquidity pooling, allowed settlement of Baltic securities in central bank money and offered new connectivity solutions with a single user interface and harmonised formats.

"The direct link is an important addition to the Baltic market's cross-border settlement infrastructure, facilitating access in rapidly expanding markets in response to customer demand. It will provide foreign investors easier access to the Baltic region, securing a more robust channel to settle cross-border securities transactions," said Indars Ascuks, the CEO of Nasdaq CSD.

FINLAND

Unweighted	Score
SEB	5.65
Nordea Bank	4.49

Weighted	Score
SEB	6.40
Nordea Bank	5.30

Euroclear Finland announced that it would be joining the European securities settlement platform TARGET2-Securities (T2S) in November 2022. The clearing house said that joining T2S aligns with the Finish branch's infrastructure renewal programme to meet the requirements of the settlement land-

scape in Europe. Hanna Vainio, CEO, Euroclear Finland, said: "The roadmap of joining T2S has been agreed in close collaboration with market participants, Bank of Finland and the European Central Bank. Just like in the previous stages of the Infinity programme [its CSD system deployed in 2018], we will work together with clients to ensure a smooth transition to T2S for the whole market. With our CSDR license and renewed infrastructure, we are now well positioned for better serving our Finnish, Nordic and global clients."

After introducing partial settlement on October 7, Euroclear Finland said that by October end, 76% of partial settlements took place against a central counterparty (CCP) and that the CCP settlement efficiency per value improved by 86.17% in September to 93.10% in October, highlighting the benefits of partial settlement for clients.

Another milestone for Euroclear Finland was receiving its CSD license from the Finnish Ministry of Finance in August to operate under the Central Securities Depository Regulation (CSDR).

FRANCE

Unweighted	Score
BNP Paribas Securities Services	5.76
CACEIS BANK	5.52
Deutsche Bank AG	5.19

Weighted	Score
CACEIS BANK	6.63
Deutsche Bank AG	4.75
BNP Paribas Securities Services	4.59

Euroclear France acts as the country's central securities depository (CSD) and is part of the group of CSDs called ESES, which encompasses the entities Euroclear France, Euroclear Belgium, and Euroclear Nederlands. In May 2019, Euroclear ESES appointed Sophie Malarme-Lecloux to the board of directors for each of the CSDs. She has experience as a non-executive board director having served at Orpea SA, Deceuninck NV, and Callataÿ & Wouters, while currently serving on the board

Euroclear France acts as the country's central securities depository (CSD) and is part of the group of CSDs called ESES, which encompasses the entities Euroclear France, Euroclear Belgium, and Euroclear Nederlands.

of Befimmo SA and CBO Territoria SA. Wille, Meijer was also appointed to the board in January 2019. Francis Remacle, chair of the ESES CSDs, commented: "I am very pleased to announce that we have recently added Willem Meijer and Sophie Malarme-Lecloux as Board members of our ESES CSDs. The experience, expertise and previous achievements of Sophie and Willem will enrich the value, the potential and the performance of our Boards of Directors in ESES. As Chairman of the Boards, I am delighted to see them joining our excellent team, especially now that Euroclear France, Belgium and Netherlands have received CSDR licenses from their respective regulators."

In September, Euroclear France was appointed issuer CSD for two Spanish equities listed on Euronext venues via its Tech Hub initiative, which looks at helping technology companies across Europe to raise funding. The clearing house said its aim for its French entity was to implement a European-wide offering to allow corporate issuers to issue their equities through a single entry point. This is already made possible for Spanish and Italian issuers and the next phase will be rolled out for German and Swiss issuers. For these Spanish equities, BNP Paribas Securities Services was selected to act as share registrar and paying agent. Brigitte Daurelle, chief executive officer of ESES, said: "These equity admissions are the first step in our goal to offer a single holistic service, allowing European issuers to use Euroclear as their entry point to access an international investor base. As a market infrastructure, this service offering complements our role of supporting the European trading platforms and issuers in their desire to achieve increased international access."

GERMANY

Unweighted	Score
BNP Paribas Securities Services	6.05
Deutsche Bank AG	5.37
Commerzbank	5.05

Weighted	Score
Deutsche Bank AG	4.92
BNP Paribas Securities Services	4.27
Commerzbank	4.02

Like many central securities depositories (CSDs) across Europe, Clearstream received its CSDR licence for Clearstream Banking AG, its German CSD at the beginning of the year from BaFin. Mathias Papenfuss, head of regulatory implementation at Clearstream, commented: "We are delighted that Clearstream Banking AG has been authorised as CSD under CSDR. Receiving this licence is an important achievement; it is proof of our continuous efforts to ensure that we are in the best position to support the safety and stability of financial markets and offer services aligned with European standards to all market participants."

Alongside obtaining the CSDR licence, Deutsche Boerse's Eurex Securities Transactions Services (STS) was granted a banking licence from BaFin to offer buy-in agent services under the settlement discipline regime of CSDR. As the only buy-in agent to date, Eurex STS' managing directors Marcus Addison and Marcel Naas told Global Investor that the service would be fully ready by the third quarter of 2020.

While both chiefs don't think they will be on the only buy-in agent on the market before the regulation comes into force in February 2021, Naas said it is difficult to grasp what the volume of buy-in orders will look like, but hopes that the numbers would decrease over time. "No one really knows how much volume there will be, but we expect that market participants will spend some time optimising their back-office procedures in order to minimise the number of buy-ins.

This is the clear intention of the regulation and what we are hearing from clients is that they are looking at their back-offices and trying to figure out how to reduce the number of settlement fails, so the regulation is already working. We expect that, initially, there will be a high volume of buy-in orders but, over time, we expect the number to go down," said Addison.

Uwe Dreger, Head of Financial Intermediaries & Corporates Client Line, BNP Paribas Securities Services Germany & Austria, said: "As in many other European countries, both Germany and Austria are focusing on the implementation of recent European regulation. A particular focus has been made on CSDR, especially in relation to the penalty regime that it entails. This foresees the initiation of mandatory buy-ins on failed OTC settlements via a so-called buy-in agent (The Deutsche Börse AG has established an entity which will offer this service).

"In parallel, the transformation of SRD II, the second shareholder rights directive, into local law to facilitate shareholder transparency and increase participation at general meetings with implementation of the new ISO20022 standard will bring significant improvements in proxy services for our clients."

Dreger added: "In Germany, there has recently been an increased focus on digital assets. The German government introduced a draft law on digital bonds, with digital funds and digital equities to follow soon. The German regulator, BAFin, has also issued guidelines on applications for crypto-asset custody. BNP Paribas Securities Services will apply for a license to provide custody for crypto-assets, thus providing support to clients to enable them to take advantage of the new opportunities emerging in the digital asset space."

Gerald Noltsch, Head of Securities Services, Germany at HSBC, said: "Covid-19 is an unexpected challenge for the financial industry. Given our operational infrastructure, we see stable operating systems accompanied by streamlined processes and experts who focus on their job. HSBC in Germany processed a new record of 65 million transactions during the first four months of 2020, and our client base continues to increase."

He added: "With the Shareholder Rights Directive (SRD II) the finance industry in Europe faces new requirements, with respect to the provision of general meeting information to shareholders and the execution of voting rights.

> **"In Germany, there has recently been an increased focus on digital assets. The German government introduced a draft law on digital bonds, with digital funds and digital equities to follow soon."**
>
> **Uwe Dreger, BNP Paribas Securities Services Germany & Austria**

Noltsch concluded: "Another significant piece of EU regulation is the Central Securities Depositories Regulation (CSDR), bringing about new requirements for CSDs and ICSDs, and for banks providing securities services. Part of this new regime is the strengthening of settlement discipline by raising penalty fees for counterparties with outstanding in which could be significant. As a consequence, for outstanding unsettled trades, buy-ins will be initiated. These measures will further enhance and strengthen market discipline."

GREECE

Unweighted	Score
BNP Paribas Securities Services	5.67

Weighted	Score
BNP Paribas Securities Services	4.71

The Greek economy grew substantially in 2019, especially after the parliamentary elections. In particular, GDP growth and budget surplus outperformed compared to ESM/EU targets. In 2020, the situation continued to show growth but will be set back amidst the coronavirus outbreak and associated containment measures explains Kelly Kakanaki, head of Greece for BNP Paribas Securities Services.

"In our business, the regulatory environment and its changes are key for the domestic capital market and a lot of effort is thus being placed on the CSDR and SRDII implementation," adds Kakanaki. "These regulations will change many aspects of the Greek market, first and foremost with the introduction of omnibus accounts. Even though the scope of these regulations is pan-European, they require local expertise in order to be implemented in the best possible way and ensure a smooth transition."

HUNGARY

Unweighted	Score
Raiffeisen Bank International	6.17
UniCredit	5.12
Citi	5.03

Weighted	Score
UniCredit	7.01
Citi	6.35
Raiffeisen Bank International	4.17

In 2019 the focus in the Hungarian market was on preparation for the two main regulation-driven projects, namely compliance with CSDR and SRD2 observes Livia Meszaros, head of UniCredit Global Securities Services Hungary.

"A great effort has already been made by all in the interpretation of these regulations and related guidelines, as well in the manufacturing of technical solutions," says Meszaros. "The complexity of the changes that the industry needs to face is exemplified by the fact that the licensing procedure of the Hungarian CSD, KELER, with the regulator - which started in

2017 - was still pending as of June 2020 and the system development specification is ongoing."

As the clients of KELER, including local custodians and their underlying customers, are highly dependent on the solution design of the CSD, a more intense period is expected to commence in Q3 or potentially Q4 2020 when most of the developments for both projects are likely to materialise.

"On top of the regulatory changes, we see that all institutions in the custody value chain - including our bank - are heavily investing in digitalisation and have put great emphasis on risk management," adds Meszaros. "These initiatives lead us to better quality services and more solid operations, improving customer satisfaction as well as confidence in service providers."

> "In our business, the regulatory environment and its changes are key for the domestic capital market and a lot of effort is thus being placed on the CSDR and SRDII implementation."
>
> **Kelly Kakanaki, BNP Paribas Securities Services**

ICELAND

Unweighted	Score
Landsbankinn hf	5.22

Weighted	Score
Landsbankinn hf	7.36

US exchange group Nasdaq said in May it is merging its central securities depository (CSD) business in Iceland, Nasdaq CSD Iceland, with its other European depositories.

The combined CSD, dubbed Nasdaq CSD SE, will operate in Latvia, Estonia, Lithuania and Iceland and the Icelandic branch will be "positioned to leverage the full potential" of the group's securities settlement platform and links to create new opportunities for domestic and international clients.

The migration of the settlement platform in Iceland was expected to be fully implemented on June 15.

In the statement, Magnus Asgeirsson, head of Nasdaq CSD Iceland, said: "This is by far the most significant infrastructural and technological upgrade the Icelandic securities market has gone through in the past 20 years and will enable us to embrace and advance new innovation in this field for the benefit of our clients."

Nasdaq CSD was the first CSD to gain an operating license in Europe for the impending European Central Securities Depository Regulation (CSDR) and was recently given the green light to operate in Iceland.

Indars Ascuks, CEO of Nasdaq CSD: "The post-trade environment is changing rapidly and we need to make sure that customers and investors in our markets have access to best-in-class products and services at any given time.

"By combining our operations with Nasdaq CSD Iceland we create a larger, more diverse and efficient CSD for our clients, making us better equipped to deliver outstanding customer experience and attract more international customers."

Nasqaq said Ascuks will continue to operate as the merged group's CEO upon completion, while Asgeirsson will join the CSD's management board and continue to lead the Icelandic operations.

IRELAND

Irish Funds' most recent market review notes that changes are required to the post trade settlement of Irish securities as a result of Brexit and that these changes impact Irish domiciled ETFs that settle on CREST, the UK-based central securities depository. Each Irish ETF issuer is required to plan for the migration to alternative CSD arrangements by March 2021.

The association's ETF working group has played an active role in mobilising, engaging and communicating with stakeholders in order to ensure an orderly transition. The group also engaged on the CSD migration legislation.

The Migration of Participating Securities Act 2019 was signed into law in December 2019 and facilitates market participants - including corporate ETFs - that need to transition to alternative CSD arrangements by March 2021.

While the operational work to transition remains the same, the legislation provides an alternative to the scheme of arrangement process via the High Court.

"The custodian community is preparing for the transfer of the Irish equities market to a new settlement system with Euroclear Bank by March 2021, but recognises the scale of the challenge with the breadth of regulation changes brought about by Brexit and CSDR," says Peter Stewart, head of Securities Services, UK & Ireland Citi.

ITALY

Unweighted	Score
BNP Paribas Securities Services	5.62
Deutsche Bank AG	5.48
Société Générale Securities Services	5.43

Weighted	Score
Société Générale Securities Services	6.91
BNP Paribas Securities Services	5.32
Deutsche Bank AG	4.06

Italy's central securities depository (CSD) Monte Titoli has been in place since 1987 and has been part of the London Stock Exchange Group (LSEG) since 2007. It offers settlement and custody services on Italian and foreign securities for over 40,000 financial instruments including bonds, government securities, debt securities, exchange-traded funds (ETFs) and certificates.

The Bank of Italy announced that from mid-July onwards, it would directly provide a securities lending facility for Italian government bonds purchased under the Eurosystem's monetary policy programmes, alongside with the main international central securities depositories (ICSDs). The central bank said that through this facility, it wants to increase the number of counterparties, reduce the cost of borrowing liquid assets and improve the liquidity and efficiency of the government bond market. To provide the securities lending service, it operates through the MTS Repo platform, which is regulated, alongside the Cassa di Compensazione e Garanzia (CC&G). The lending can also take place over-the-counter with counterparties that have already, or will, set out a master agreement with the central bank that covers repo and reverse repo transactions.

Dario Locatelli, Head of Financial Intermediaries & Corporates Client Line, BNP Paribas Securities Services Italy, said: "New challenges are posed by a fast-changing market environment due to major regulatory changes such as CSDR and Shareholder Rights Directive II whose aim is to bring efficiency, transparency and standardisation across markets.

He added: "Together with aforementioned major changes, BNP Paribas Securities Services advocated for market structural improvements as a new more flexible operational model for account operator services at the local CSD level."

> "New challenges are posed by a fast-changing market environment due to major regulatory changes such as CSDR and Shareholder Rights Directive II whose aim is to bring efficiency, transparency and standardisation across markets."

Dario Locatelli, BNP Paribas Securities Services Italy,

LATVIA

In February 2020, the head of the Financial and Capital Market Commission, Santa Purgaile, addressed members of the American Chamber of Commerce in Latvia on recent developments in the financial sector.

According to Purgaile, the transformation of the financial sector has already taken place, restoring the reputation of Latvia's financial sector and introducing new principles, stability and balanced development. However, much still remains to be done in order to implement a compliance culture.

Directions of further transformation include improving cooperation and communication among various authorities and institutions, cooperation and exchange of information between supervisors within the European Union and further implementation of Moneyval recommendations in Latvia.

The assessment provided by the international organisations Moneyval and Financial Action Task Force regarding Latvia's progress in improving the AML framework, inter alia changes implemented in the financial sector, is seen as a positive outcome for the country.

Nevertheless, FATF's decision not to include Latvia on the 'grey' list does not mean that there is no more work to be done according to Mārtiņš Kazāks, governor of Latvijas Banka.

LITHUANIA

Lithuania, which has as its capital Vilnius, has a strong economy comprising manufacturing, agriculture, communications and technology, and tourism. The nation has a strong export business, sending goods to neighbours Poland, Germany, Sweden and Denmark as well as further afield to the UK and US.

The national stock exchange was formed in 1993 and is now part of Nasdaq Nordic which also includes the Swedish, Danish, Icelandic, Finnish, Estonian and Latvian markets.

Nasdaq CSD group operates regional central securities depositories in the Baltics and Iceland, with a business presence in Estonia, Iceland, Latvia and Lithuania. It provides post-trade infrastructure and a wide range of securities services for Baltic and Icelandic market participants.

The CSD is a fundamental element in the financial markets, settling shares and other securities issued by companies and governments. Nasdaq CSD SE is licensed under the European CSDR and supervised by the respective regulatory institutions. The depository is powered by modern straight-through processing technology connected to the pan-European T2S platform.

Nasdaq completed in May 2020 the merger of Nasdaq CSD Iceland with Nasdaq CSD SE (Nasdaq CSD). The combined company, Nasdaq CSD SE, operates in Latvia, Estonia, Lithuania and Iceland.

Nasdaq CSD established in December 2019 a direct link with Clearstream Banking AG, the German CSD, to facilitate cross-border settlement in T2S markets, giving foreign investors easier and efficient access to the Baltic securities market.

Clearstream customers now benefit from having a single access point to securities issued in Nasdaq CSD. The single point of access to Baltic securities made Baltic securities available for increased liquidity pooling, allowed settlement of Baltic securities in central bank money and offered new connectivity solutions with a single user interface and harmonised formats.

"The direct link is an important addition to the Baltic market's cross-border settlement infrastructure, facilitating access in rapidly expanding markets in response to customer demand. It will provide foreign investors easier access to the Baltic region, securing a more robust channel to settle cross-border securities transactions," said Indars Ascuks, the CEO of Nasdaq CSD.

LUXEMBOURG

Unweighted	Score
Clearstream	5.49

Weighted	Score
Clearstream	6.05

2020 marked Clearstream's 50th anniversary as its predecessor Cedel was founded by several banks in 1970. Cedel merged with Deutsche Boerse in 2000 to form Clearstream to provide settlement services for international and national securities transactions and the custody of securities. As well as marking its golden jubilee, the Luxembourg central securities depository, (CSD) LuxCSD, celebrated its tenth anniversary and received its CSDR licence from the Luxembourg Commission de Surveillance du Secteur Financier on April 15 2020. For CSDs, the new European regulation will create a standardised set of rules for authorisation, operation, governance and the provision of services. LuxCSD's chief Patrick Georg, commented: "We are delighted that, coinciding with our tenth anniversary, we have reached a new milestone: LuxCSD has been authorised as CSD under CSDR. Having received the licence, we will be able to support our customers in Luxembourg and beyond with a safe, stable and fully compliant environment for their business aligned with European standards."

Clearstream, Credit Suisse Asset Management, the Luxembourg Stock Exchange (LuxSE), and Natixis Investment Managers collaborated in March to launch a blockchain-based technology platform for the funds industry called FundsDLT. The platform was originally initiated and incubated by LuxSE and its affiliate Fundsquare, to facilitate the distribution of funds based on distributed ledger technology (DLT). LuxSE's chief Robert Scharfe, said: "The launch of FundsDLT is an important step toward our shared goal of promoting the adoption of blockchain and digital assets across the financial industry. The Luxembourg Stock Exchange has played a catalysing role in this development, and it is exciting to see the expanding ecosystem around FundsDLT."

NETHERLANDS

Unweighted	Score
BNP Paribas Securities Services	5.61
Deutsche Bank AG	5.19

Weighted	Score
Deutsche Bank AG	4.73
BNP Paribas Securities Services	4.58

As in many other European countries, the Netherlands is focusing on the implementation of recent European regulation, says Gaël David, head of

custody solutions and product development Euronext, BNP Paribas Securities Services.

"A particular focus has been made on CSDR, especially in relation to the penalty regime that it entails," he adds. "This foresees the initiation of mandatory buy-ins on failed OTC settlements via a so-called buy-in agent. In parallel, the transformation of SRD2, the second shareholder rights directive, into local law to facilitate shareholder transparency and increase participation at general meetings with implementation of the new ISO20022 standard will bring significant improvements in proxy services for our clients."

Euronext Paris has created a dedicated MTF for the trading of warrants and structured retail products across all Euronext markets. This new MTF will facilitate centralised trading of these products, whilst the clearing and settlement will remain as today.

New features when trading on the MTF will be bilateral settlement, so not centrally cleared and extended trading hours. The MTF will start in June 2020.

NORWAY

Unweighted	Score
SEB	5.62
Nordea Bank	4.78

Weighted	Score
SEB	6.46
Nordea Bank	5.57

Euronext announced at the start of 2019 that it was planning to acquire Oslo Bors VPS, which was completed on June 18. Included in this acquisition was the central securities depository (CSD) VPS which has now been named Euronext VPS. At the end of the year, the newly acquired group reported that its assets under custody surpassed NOK 6 trillion (£500.9 billion), an all-time high for VPS. With regulatory requirements being at the forefront of firms, VPS said that across the Norwegian capital market, some firms have consequentially invested more capital into technology, whereas some have chosen to close part of their post-trade business.

To strengthen its regulatory changes solutions, and in light of the CSD Regulation's (CSDR) settlement discipline regime coming into force in February 2021, Euronext VPS announced in May 2020 that alongside other European CSDs, it would introduce a penalty regime in the VPS system based on the ECSDA Settlement Fails Penalty Network.

The main objective of the framework is to increase the settlement rate and thus, VPS said it would send daily reports on all penalised settlement instructions; notifying both parties of the amount to be received or pay in penalty for each unsettled settlement instruction. Concurrently, VPS will calculate all penalties on a monthly basis to be netted in order to give the settlement participants the net position against their individual counterparties they have had transactions with that month. VPS has until June 30 2020 to apply for its licence to operate under CSDR.

Ola Mjorud, Head of Securities Services, Nordics at Citi, said: "Despite not being part of the European Union, the CSD in Norway has started to implement CSDR with a few adaptations. The CSD became CSDR licensed in April and has already launched CSDR compliant tolerance matching and enabled recycling of cancellation requests for matched instructions."

Mjorud added: "The battle between Euronext and Nasdaq came to a close last year with Euronext completing its acquisition of Oslo Børs VPS in June 2019. This acquisition together with Portuguese CSD, Interbolsa has further established Euronext in the post-trade arena and is expected to lead to a number of changes in the Norwegian capital market, including the replacement of the stock exchange's trading system. The other three Nordic exchange continue to be owned and operated by Nasdaq."

> Euronext announced at the start of 2019 that it was planning to acquire Oslo Bors VPS, which was completed on June 18.

POLAND

Unweighted	Score
BNP Paribas Securities Services	6.10
Bank Pekao SA	5.80
ING	5.11
Citi	5.09

Weighted	Score
Citi	6.22
ING	6.00
Bank Pekao SA	5.72
BNP Paribas Securities Services	3.84

The impact of COVID-19 has forced banks in Poland to work hard to ensure business continuity, but this is also the right moment to reflect on the role of banking, especially on building a 'new normal' relationship with clients and society says Zbigniew Ścisłowski, head of sales & relationship, BNP Paribas Securities Services Poland.

"In recent years we have witnessed the development of a culture of passive investments with ETFs and a variety of structured products in Warsaw. Now, we are seeing record numbers in terms of new brokerage/securities accounts openings and investors are crowding into the tech arena."

One of the most important changes to come from a market infrastructure perspective is the common project of KDPW_CCP S.A. and Treasury BondSpot Poland transactions to implement mandatory clearing of guaranteed transactions of the cash market, which is scheduled for October 2020.

"Obviously, the main driver of the introduction of the CCP clearing is the fact that transactions will be covered by collateral monitoring, formal checks and novation as well as updates related to margins and the guarantee fund," adds Ścisłowski. "The next step is the development of an optimal model and timeline for the central clearing of repo transactions, scheduled for Q1 2021."

PORTUGAL

Unweighted	Score
BNP Paribas Securities Services	5.67
Deutsche Bank AG	5.28

Weighted	Score
BNP Paribas Securities Services	4.60
Deutsche Bank AG	4.12

Euronext, the European exchange group that owns the local Portuguese market, agreed in December to sell its 20% minority stake in EuroCCP to Cboe Global Markets.

The exchange said the transaction is expected to close in H1 2020, subject to receipt of regulatory clearances and the arrangement of a supporting liquidity facility at the EuroCCP clearing entity level.

Euronext said it anticipates that it will receive net proceeds of around €9 million (£7.6 million) from the sale of its minority stake.

"Euronext remains committed in developing its post trade strategy, described in its Let's Grow Together 2022 strategic plan," the statement read.

The firm said it will continue to leverage its long-term derivatives clearing agreement with LCH SA, in which it holds an 11.1% stake, and develop its two fully-owned CSDs in Norway and Portugal, as the foundation for further growth in post trade.

Interbolsa is the leading entity in Portugal in post-trade services, offering integrated and flexible solutions at European level, operating as Custody and Settlement Central Securities Depository (CSD), belonging to the EURONEXT Group and being compliant with:

- CSD Regulation (CSDR);
- The Portuguese Legislation on Capital Markets;
- The rules of the Portuguese Securities Market Commission (CMVM).

The CSD uses the most stringent international service and security standards, and was one of the first CSDs to join the European settlement platform TARGET2-Securities and to obtain authorisation to operate as a CSD in the context of CSDR.

Interbolsa participants may open securities accounts, as many as necessary for the execution of their activity and to guarantee their needs of segregation. The securities accounts can be of one of these types: own account, omnibus client segregation and individual client segregation.

Fabrice Segui, Head of Portugal for BNP Paribas Securities Services, said: "Last year, we have witnessed several changes in the post-trading environment of the Portuguese Market – both in terms of market infrastructure (e.g., implementation of the trade netting by LCH SA, and the opening of Issuer CSD links with Interbolsa) and changes to the existing tax regulation (e.g., documenting requirements affecting tax procedures).

Segui added: "Also, market players, infrastructures and regulators continued to focus on the upcoming challenges resulting from the European regulation that is affecting post-trade. We would highlight the future implementation of the settlement discipline regime as part of CSDR, as well as the transposition of the Shareholders Rights Directive II."

ROMANIA

Unweighted	Score
Citi	5.26

Weighted	Score
Citi	7.09

The Bucharest Stock Exchange CSD, Depozitarul Central (DC), recently made available to participants the implementation plans and technical specifications for the second phase of the CSDR-driven operational updates. Technical specifications were made available in April 2020 for the features which will become available this year.

Testing with participants is scheduled for June-July and the go-live date is set for the end of July explains Andrei Mezdrea, head of GIS Romania Raiffeisen Bank.

"Another project scheduled for the current year is the revision of the CSD guarantee fund rules and the settlement limits," says Mezdrea. "The new mechanism allowing the scalability of the settlement limit based on guarantee fund contributions will be shared with the participants as technical specifications in August and testing and implementation are planned for September/October and November/December respectively."

Claudia Ionescu, head of custody and depositary, SGSS BRD Romania notes that in November 2019 the Romanian Parliament approved a law on regulation of alternative investment funds.

"The Romanian Financial Supervisory Authority (FSA) is the competent authority to apply the provisions of the new AIF Law, which is part of the FSA's plan to align Romanian legislation with recent EU developments and trends, according to which fund managers are regulated at EU and national level, while the alternative investment funds that they manage need to be regulated at national level only," she adds.

Irina Savastre, Head of UniCredit Global Securities Services Romania at UniCredit Bank SA, said: "Although 2019 had a challenging start after public information was released regarding additional taxation in banking, energy and telecom sectors, as well as changes in the Pillar II pension system, the year proved to be one of the best years in terms of yearly growth. The industry community expressed its willingness for dialogue because investors need legislative predictability."

She said: "Capital market infrastructure is one of the main pillars on which efforts were focused in 2019 and this is the context when the Romanian market was promoted to Secondary Emerging Market status by the global index provider FTSE Russell. This decision will come into effect in September 2020."

Savastre concluded: "In 2019, market participants have been part of the process of enhancements promoted by the Central Depository in respect to corporate actions standards and have been focused on the CSDR implementation together with both local depositories – the Central Depository and SAFIR for Romanian Government Bonds. Market practice groups gathered and started preparation to enforce the settlement discipline regulation. It is a unified effort done at the market level for each participant as it involves procedures and IT software upgrades, awareness for the internal community and for clients who are the main beneficiary of these services."

"Although 2019 had a challenging start after public information was released regarding additional taxation in banking, energy and telecom sectors, as well as changes in the Pillar II pension system, the year proved to be one of the best years in terms of yearly growth."

Irina Savastre, UniCredit Bank SA

RUSSIA

Unweighted	Score
Citi	5.04

Weighted	Score
Citi	6.19

Russia has been badly hit by the financial turmoil linked to the COVID-19 pandemic. Its main market was down over a third from the start of the year to the end of March while interest rates on 10 year government bonds is around 7%, which is high for Europe.

The main equities market, the Moscow Exchange, has remained bullish however.

The group began testing in March an equity after-hours trading facility for launch in late May 2020.

After-hours trading will expand access to the Russian financial market for all groups of investors and open up new trading strategy opportunities including hedging and arbitrage between the Derivatives and FX Markets and hedging and arbitrage with international platforms, the exchange said.

MOEX revealed in October 2019 a five-year strategy, focusing on responsibility and growth, while committing to diversify its derivatives products and market data offering.

The group said it hopes to increase its client base significantly, through to 2024, as well as promote market development and maintain revenue growth of more than 10% per year from fees and commissions.

The group reiterated its position as the pricing center for Russian financial assets and the foremost capital-raising platform for Russian businesses, saying that it will continue to broaden access, extend trading hours and expand its product and service lines in order to, "provide an offering on par with the best exchange platforms globally".

Particular attention will be given to relations with investors and issuers, the group said, for attracting financing through equity and bond placements, as well as diversifying the range of derivatives products and working with market data.

The exchange said it will aim to expedite business processes, reducing the time to market for new products and services and increasing the cyber stability of key systems. It would also look to delegate authority "on a wide range of business development issues".

MOEX will focus on creating services that provide banks and brokers with new opportunities to promote their services, and aims to double its retail investor base over the medium term.

For professional participants, the ex-

change aims to more flexible services for liquidity, order execution and post-trade in a single interface, with a view to increasing its client base and liquidity in FX and derivatives markets, including the standardised OTC market.

The company also revealed it will extend its accounting infrastructure to include a wider range of financial assets.

Yury Denisov, Chief Executive Officer of Moscow Exchange, said the group aims to, "bring trust, efficiency and innovation to the financial markets, helping companies and citizens to achieve tomorrow's goals," adding that, "today the company is well positioned to meet the objectives that the new strategy sets out".

Natalia Sidorova, Head of UniCredit Global Securities Services Russia at AO UniCredit Bank, said: "In 2019, the Russian market was characterized by its stable and confident performance and continuing evolution in terms of further streamlining of the infrastructure, complying with the best international standards, refining legislative acts and proactive adoption of innovative ideas."

She said: "The NSD has continued to be the flagship of the digitalization and technology evolution in the market in addition to adhering to advanced international standards. Custodians have faced a number of challenges, mostly of regulatory nature – practical implications of the tax agent function, forthcoming implementation of the MLI and the need to tackle numerous regulatory reporting and compliance requirements."

Sidorova concluded: "This has resulted in active discussions in various working groups, mainly with the NFA and NSD. In particular, these topics focused on how to tackle the excessive regulatory burden and to address, with regulators, the practical implications arising from the interpretation of new normative acts. In terms of the competitive landscape, custody services have become more of a utility – which is not that different from the rest of the world – while the main differentiators of a good provider are: the people, the risk mitigation mindset and the readiness to adapt to the changing environment."

SERBIA

Unweighted	Score
UniCredit	4.73

Weighted	Score
UniCredit	6.11

Belgrade Stock Exchange is Serbia's main market and can trace its roots back to 1894. The exchange offers equities, bonds and has over 400 individual listed instruments. The exchange has a prime blue-chip share index made up of four firms, a standard listings segment with three firms and an open market with 18 listed firms.

Manufacturing firms make up the largest proportion of listed firms followed by wholesale and retail firms and construction companies.

The exchange said on its website it plans to offer other debt securities, warrants on shares and bonds and other securities with the right to purchase shares or bonds, derivatives, certificates of deposit and other financial instruments to be listed at the exchange under Serbian Law.

Olja Matijas Zdravković, Relationship Manager, UniCredit Global Securities Services Serbia at UniCredit Bank Serbia JSC, said: "At the beginning of 2020, the Serbian market has been characterised by changes in the Serbian laws such as the anti- money-laundering law and law on investment funds. In December 2019, the Serbian Parliament adopted amendments and supplements to the Law on the Prevention of Money Laundering and Terrorism Financing. The main objective of this is to improve the existing system of detecting and preventing the laundering of money and financing of terrorism."

> "At the beginning of 2020, the Serbian market has been characterised by changes in the Serbian laws such as the anti-money-laundering law and law on investment funds."
>
> **Olja Matijas Zdravkovic, UniCredit Bank Serbia JSC**

Zdravković added: "Another goal is to harmonise the Law with international standards in this area. In addition, the Serbian market in 2020 introduced the Law on Open Investment Funds with a Public Offer and the Law on Alternative Investment Funds, covering the participation and the development of investment funds in the Serbian capital market. These Laws regulate the open investment funds with a public offer, which invest in transferable securities, and the companies which manage such funds, whereas all other funds and forms of management of such funds are regulated by the Law on Alternative Investment Funds."

SLOVAKIA

Unweighted	Score
UniCredit	5.92

Weighted	Score
UniCredit	5.17

Peter Uhrin, head of GIS Slovakia, Raiffeisen Bank observes that while the growth of equity trading, new IPOs and the growing interest of issuers in admitting their shares to trading can be seen in other markets, in Slovakia the trend is completely opposite.

Only 37 issuers of shares are listed on the Bratislava Stock Exchange, of which fewer than 10 could be described as active. "SRD2 which, among other things, brings new information obligations regarding the remuneration of board members of listed companies is another trigger for issuers who did not need anything more," he says. "The result is additional outflow of issuers from the stock exchange whilst market capitalisation has already fallen below €2.5 billion."

Thus, the CDCP and market participants are preparing for operations (voting at the general meeting, declaring the ultimate owner of shares, etc.), which may never even occur. The practical impact of SRD2 is thus likely to be seen only in the application of the sanction mechanism for late settlement of transactions.

Uhrin notes that Slovakia has long been considered a bond market dominated by government bonds. Liquidity is relatively high, with the domestic market of custodians being concentrated among six large players for whom the provision of custody services against government bonds is the most straightforward service.

Mária Gelingerová, Relationship Manager at UniCredit Global Securities Services Slovakia at UniCredit Bank Czech Republic and Slovakia, a.s., pobočka zahraničnej banky, said: "In Slovakia, during 2019, the market infrastructures and market participants started working on projects focusing on the implementation of the Penalties mechanism (CSDR) and Shareholders identification (SRD II). While CSDR legislation is directly applicable into the Slovak law, the SRD II has been transposed into Slovak law by Act 156/2019 Coll. Amending Commercial Code and several other acts (Act on Securities and Investment Services, Act on Supplementary Pension Scheme and Act on Collective Investment) and became effective on 1 July 2019. The paragraphs on identification of shareholders and transmission of information will become effective in September 2020."

She added: "The first quarter of 2020 brought exciting news from Slovakia. Most importantly, the two operating CSDs – the Central Securities Depository (CDCP) and the National CSD (NCDCP) announced that they will be merging into one. On 21st February, 2020, they both issued a press release where they confirmed their intention to consolidate into one single CSD."

Gelingerová concluded: "Both CSDs signed a Memorandum of Understanding and Cooperation, co-signed by their shareholders – the Bratislava Stock Exchange and the Slovak Guarantee and Development Bank. The project will run under the supervision of the National Bank of Slovakia and the Ministry of Finance of the Slovak Republic. This will consolidate the infrastructure and create a single modern CSD which will provide services at a highly professional level in the Slovak Republic."

SLOVENIA

Unweighted	Score
UniCredit	4.81

Weighted	Score
UniCredit	6.51

Slovenia has a tradition of trading and its first exchange emerged almost a century ago. The Ljubljana Stock, formed in 1993, is the only exchange in Slovenia. The LJSE was bought in 2015 by the Zagreb Stock Exchange, Croatia's main market.

There are some 78 listed securities, including shares, bonds such as money market instruments, treasury bills and commercial paper, and structured products including funds, certificates and warrants.

The exchange has a blue chip market called LJSEPrime which includes Slovenia's top listed companies, renowned for their liquidity, size, transparency of operations and international visibility. There are currently nine firms included in LJSEPrime, comprising a logisitics firms, a pharmacist, a port operator, a retailer, a bank, an energy distributor, a reinsurance company, a telecoms firm and an insurer.

Brokerage firms, investment firms, banks or special financial institutions must meet the conditions set by the Markets in Financial Instruments Act (ZTFI), the Exchange Articles of Association and the Exchange Rules to become a member of the Exchange.

There are currently nine members, according to the LJSE website, including divisions of Erste Bank and Raiffeisen which are two of the four remote members on the market.

The LJSE uses an electronic trading system Xetra, into which orders may be placed only by Xetra traders authorised by LJSE member firms.

Vojislav Kecojević, Relationship Manager at UniCredit Global Securities Services Slovenia, part of UniCredit Banka Slovenija d.d., said: "In 2019, the Slovenian market was stable with minimal growth and continued its development in terms of improving the securities services market infrastructure and offer, complying with international standards and best practices, and implementing new local and EU regulations."

Kecojević added: "The year 2019 was significant, especially from the regulatory point of view. Several EU directives were implemented or are in the process of implementation: MIFIDII, CSDR and SRD II.

"The Market in Financial Instruments Act, which implements MIFIDII, came into force in June 2019. In addition to implementing MIFIDII and MIFIR requirements, the new Act regulates the guarantee scheme and bankruptcy of brokerage house and defines the Securities Market Agency competences in this process. New legal requirements of MIFIDII also brought changes to client reporting obligations related to securities information and fees. UniCredit Banka Slovenia successfully implemented all the requirements of MIFIDII and is fully compliant with the new Act."

"In 2019, the Slovenian market was stable with minimal growth and continued its development in terms of improving the securities services market infrastructure and offer, complying with international standards and best practices, and implementing new local and EU regulations."

Vojislav Kecojevic, UniCredit Global Securities Services Slovenia

Kecojević concluded: "In Autumn of 2019, the market started to prepare for further implementations of the remaining CSDR components (such as the settlement penalties mechanism, buy-in procedure, partial settlement and hold & release functionalities). The CSDR licence was granted to the KDD by the Slovenian Securities Marketing Agency on 26 September 2019. KDD confirmed that the new development related to CSDR will be based on the T2S Penalties Framework, while no further details regarding the technical aspects of CSDR have been revealed yet."

"Currently, the details regarding CSDR and SRD II implementation (especially the technical aspects) are still unknown, so we expect the year 2020 to be very challenging in terms of ensuring IT developments and compliance with the new regulations. However, the Global Securities Services team at UniCredit Banka Slovenia is confident that we will meet all the regulatory requirements and continue to offer the best services on Slovenian market."

SPAIN

Unweighted	Score
BNP Paribas Securities Services	5.63
Deutsche Bank AG	5.63
BBVA	5.25

Weighted	Score
BBVA	5.67
Deutsche Bank AG	5.50
BNP Paribas Securities Services	4.73

Despite the drive for harmonisation in recent years, post-trade Spain is still a challenge - especially in terms of settlement flow - with significant room for improvement in settlement efficiency suggests James Foster, market specialist - sales, BNP Paribas Securities Services Spain.

"In terms of asset servicing, the definition of beneficial ownership and registration in the Spanish market will add additional complexity to the ownership identification process to be implemented with SRD2," he says. "We have also seen the proposed Spanish Financial Transaction Tax placed firmly back on the agenda."

The past 12 months have seen market players in Spain concentrating their efforts on the developments required to be ready for the implementation of CSDR adds Paola Pedrola – SGSS country head Spain.

The settlement discipline was originally scheduled for September 2020, but the date has been pushed back as preparations were interrupted by the state of emergency called by the Spanish government due to the COVID-19 pandemic.

"With sanctions for late matching and failed settlements on the horizon, it is important to focus on straight through processing and efficiency of settlement," he says.

SWEDEN

Unweighted	Score
SEB	5.91
Nordea Bank	4.55

Weighted	Score
SEB	5.98
Nordea Bank	5.34

Euroclear Sweden has been the Swedish Central Securities Depository (CSD) since 1971 and landed its licence in November to operate under the EU's CSDR regulation, which is scheduled to come into force in February 2021. Michael Carty, CEO of Euroclear Sweden, said: "We are pleased to have been granted authorisation under the CSDR EU regulation. It is an important milestone for the company. This enables us to continue to provide a secure, efficient and stable market infrastructure for the Swedish capital market."

The Swedish arm of Euroclear also announced it was adding Danish krone to its exchange traded products (ETPs) service offering, enabling the depository to provide the issuance, settlement and payment of ETPs in Danish krone, Euros and Swedish krona.

At the start of May 2020, Euroclear Sweden launched a digital tool to help shareholders cast votes digitally ahead of general meetings. As the Covid-19 pandemic has reduced the number of face-to-face business interactions, the service coincides with a Swedish law which came into force on April 15 allowing limited companies to hold general meetings with retained shareholder influence and without the shareholders having to be physically present. Regarding the new digital tool, Carty commented: "Swedish limited companies are actively working to protect their shareholders during the COVID-19 pandemic. By launching a digital voting service, we are enabling shareholders to actively participate in General Meetings without needing to be there in person."

SWITZERLAND

Unweighted	Score
BNP Paribas Securities Services	6.52
UBS AG	5.75
Credit Suisse	5.48

Weighted	Score
Credit Suisse	5.89
UBS AG	5.50
BNP Paribas Securities Services	3.46

With the Covid-19 pandemic affecting global markets, bringing about extremely levels of volatility and uncertainty around the world and in the financial industry, Switzerland's SIX Group, the nation's main exchange saw a high uptick in clearing and settlement volumes in March due to heighted trading activities. Sandro Heim, head relationship management at the Swiss Stock Exchange commented: "We saw over four and a half million domestic settlement transactions in March 2020, compared to just over half that in March 2019. Similarly, international settlements reached just shy of one and a half million in March 2020 versus almost six hundred and fifty thousand a year ago.

Elsewhere, there were 58,863,095 cleared trades in March 2020, a massive spike from one year prior when that figure stood at 33,179, 085." With that in mind, the group said it has had to implement a strong business continuity plan and adjusted to working remotely. Heim added that in order to support clients and the increased trading, clearing and settlement requirements, the exchange was "helping users optimise their liquidity management processes, by providing them with additional information and resources through various digital channels.

Moreover, we continue to support our customers when they enter into new markets or asset classes." Stephan Hänseler, head global relationship and network management, at the exchange added that the pandemic has not affected the exchange's work. "Clients have not reported any disruption despite the record volumes of trading, clearing and settlement transactions being processed," added Hänseler.

Marco Citrini, Head of Financial Intermediaries & Corporates Client Line, BNP Paribas Securities Services Switzerland, said: "Over the past year, we have seen the Swiss financial market focusing not only on EU regulations, which are also impacting Switzerland, but also on operational efficiency increasing digitalisation, such as SIX Digital Exchange which should become the future backbone of the Swiss financial ecosystem."

Citrini continued: "As a strategic partner, we help our clients to get ready for the transformation of the financial markets through the implementation of new regulations such as CSDR or SRD II in Switzerland, or new technologies such as SIX Digital Exchanges, keeping our clients impact as low as possible by absorbing their investment costs through streamlining and adapting the processes to current standards and interfaces. For instance, we are now fully interfaced to Connexor and can issue thousands of securities within a few minutes. This also allows issuers to use the same interface for the initiation of the listing and issuing process. As a forward-thinking business, we continuously invest in future standards and processes, granting our clients the access to the Swiss market at any time."

Feriz Hasani, Head of Custody Banks Advisory at UBS Switzerland AG, said: "The creation of digital assets through tokenization is becoming increasing relevant across the financial services industry, with Switzerland emerging as a front runner. The SIX Digital Exchange (SDX) is an example of this with UBS being an investor in SIX."

Hasani added: "The implementation of the CSDR Penalty Regime and Shareholder Rights Directive II is currently in focus. Even though the Swiss market is generally not in scope of the regulation, intense discussions are taking place with clients broadly about the applicability of the new regulations and the impact thereof."

TURKEY

Unweighted	Score
BNP Paribas Securities Services	6.28
Deutsche Bank AG	5.58
Citi	4.87

Weighted	Score
Citi	6.03
Deutsche Bank AG	4.89
BNP Paribas Securities Services	4.80

In the Turkish market, tri-party collateral management possibilities and general clearing services within the CCP structure are two topics identified as development opportunities.

In 2019, the long-awaited omnibus account structure for Foreign Central Securities Depositories (FCSDs) was introduced for government debt instruments. This new setup, compatible with the working principles of ICSDs, was introduced to ease access to the market while enabling the use of Turkish capital market instruments in international transactions as collateral and facilitating the integration of domestic markets with international markets.

"Among other developments, Borsa Istanbul introduced after-hours sessions for the listed derivatives market, allowing seamless access for European and US-based clients," says Ertunc Gurson, head of TEB/BNP Paribas Securities Services Turkey.

Turkish regulators have made significant amendments to banking and capital markets laws which are expected to create a more secure legal environment for investors and encourage more investment in debt capital markets instruments according to Ibrahim Yurtlu, head of securities services, Turkey HSBC.

"One of the most notable features is the enhancement of the central bank's authority over banking transactions," he adds. "The central bank can now determine the fees and commissions charged by banks for any transaction, whereas previously it could only determine the maximum rates related to loans and deposits."

UKRAINE

Unweighted	Score
Citi	4.55

Weighted	Score
Citi	5.98

Established in October 2008, Ukrainian Exchange offers trading in a wide array of financial instruments from equities to futures and options.

Initially RTS Stock Exchange, later Moscow Exchange, were major shareholders of Ukrainian Exchange with a 43% stake. In March 2016 Moscow Exchange sold its shares to Ukrainian market participants.

Today more than 50% of shares are controlled by two groups of companies affiliated with Dragon Capital and UNIVER Investment Group. The free float is distributed among local and foreign investment institutions and individuals.

The Ukrainian Exchange has 71 members, according to its website, including the local subsidiaries of Alfa Bank and Raiffeisen.

The exchange has an order-driven equities market and a repo market solution.

Basic principles of the order-driven market:

- anonymous trading based off a continuous double auction, with settlement on T+0 and 100% advance depositing of securities or cash;
- opportunity to chose the settlement day for negotiated trades;
- DVP settlement in local currency as the only available settlement option.

When a trade is executed trading participants do not have to sign any paperwork because for this purpose an analogue of the handwritten signature is used. The securities sale and purchase agreement between the exchange members is executed in e-form simultaneously with matching of the two opposite orders. This enables trading participants to cut costs related to registration of trades and allows them to offer competitive brokerage commissions to end-investors that are reasonable even in case of minimum-value trades.

Internet trading not only eliminates the costs of submitting orders to the broker on paper but also, more importantly, enables market participants to respond to changing market conditions faster.

The National Depository of the Ukraine (NDU) went live in September 2019 with UK-based tech firm Percival's DEPEND solution, which is being used to settle the Depository's UAH1.7 trillion (£546 billion) of assets.

UNITED KINGDOM

Unweighted	Score
BNP Paribas Securities Services	5.74
HSBC	5.46

Weighted	Score
HSBC	5.66
BNP Paribas Securities Services	3.19

The minutes of the Bank of England's Securities Lending Committee meeting from February 2020 reveal that ISLA provided an update on the size and composition of the securities lending market based on the most recent semi-annual market survey.

As at 31 December 2019, the value of all securities made available by institutional investors was €21 trillion, with approximately €2.3 trillion out on loan at any one time.

Government bond lending experienced spill-overs from liquidity issues in US repo markets in the second half of the year, with price volatility spiking rebate rates in US and European markets in mid-September.

Overall, government bond lending represented 46% of all securities on loan globally with the potential for this to increase given implementation of uncleared margin rules. Equities lending continues to comprise up to 80% of revenue in securities lending markets although this could change following the introduction of UMR.

Members agreed that the vast majority of market participants would be ready to undertake SFTR reporting ahead of any final deadline but strong change management will be important to ensuring the submission of high quality data.

Members noted greater uncertainty around CSDR implementation. One member noted that CSDR might require changes to existing standard settlement instructions which would likely result in another large repapering exercise. ■

Middle East & Africa

BAHRAIN

Unweighted	Score
HSBC	5.44

Weighted	Score
HSBC	7.45

UAE-based First Abu Dhabi Bank (FAB) signed in May a depository agent agreement with Bahrain Clear to offer its custody services at the Bahraini exchange, Bahrain Bourse.

The custodial services will be available to regional and international investors and are part of Bahrain Clear's group strategy to boost its outreach, the bank said.

Abu Dhabi-headquartered FAB will provide custody, issuer and transfer agent services, and fund administration to clients as a direct custodian in the Bahraini market.

Kashif Darr, managing director and head of securities services at FAB, commented: "FAB is expanding its regional direct custody footprint. With 50 years of presence, we are uniquely positioned to help our clients navigate the region."

Abdulla Jaffar Abdin, senior director of operations at Bahrain Clear, added: "We are delighted to have First Abu Dhabi Bank on board as a custodian, which will provide their regional and international investor-base with access to Bahrain's capital market.

"We look forward to working closely with FAB's Securities Services team for post-trade services to deliver creative custody solutions to their global client-base."

Bahrain-based SICO Bank (SICO) was named in December as execution adviser, receiving agent and allotment agent in the acquisition of Bahrain Islamic Bank (BISB) by National Bank of Bahrain (NBB).

SICO is a regional asset manager, broker and investment bank with more than $2.1 billion (£1.6 billion) of assets under management (AUM) and operates under a banking licence from the Central Bank of Bahrain (CBB).

The acquisition is said to be one of the largest in the region and comes amid an influx of mergers and acquisitions (M&As) in the Gulf as banks are looking to cut costs.

Najla Al Shirawi, CEO at SICO, said: "We are very pleased to be working with two of the most prominent banks in Bahrain such as NBB and BISB and to have been named adviser on this transaction.

"It speaks volumes to our track record as lead adviser on key transactions and our provision of guidance on valuation, equities and debt issues, optimal capital structures, distribution policy, liquidity, and restructuring deals with an ever-growing roster of seamlessly executed high-profile transactions."

Francis Dassou, Head of Securities Services KSA and Bahrain at Bank FAB, said of the market: "We are very delighted to witness the implementation of the key changes outlined in Bahrain Clear's three- year ambitious roadmap, which we believe will result in positioning Bahrain's capital market as a one of the sophisticated financial centres in the MENA region."

Dassou continued: "With COVID-19's impact and the lessons learned, FAB Securities Services is closely collaborating with Bahrain Clear to continue implementing digital solutions, such as virtual AGMs. We firmly believe that allowing international investors to remotely attend these meetings, interact directly with listed companies' board members and cast their votes instantly, will increase transparency, strengthen investor trust and subsequently result in more foreign capital flows into the Kingdom."

He added: "We are also closely engaged with Bahrain Clear to implement SWIFT connectivity to increase further market efficiency, reduce carbon footprint and achieve a key milestone in their ESG journey. As we expand our direct footprint in the region, we are well positioned to advocate regional harmonisation and also recommend the required international best practices, which are embraced by various market infrastructures we interact with."

Malti Javeri, Head of Securities Services for Bahrain at HSBC, said: "As part of its ongoing plans to further develop the Bahrain capital markets, the Bahrain Bourse is making good progress on several of their planned initiatives.

"The most significant development is with respect to the launch of a DVP model along with a trade rejection facility. A consultation paper was released in 2019, seeking feedback from market participants, for the development of an appropriated DVP model that is aligned to international standards.

Javeri added: "The Bahrain Bourse is also working on new listing rules that will provide clarity on the regulatory and organisational framework governing all operational aspects of Bahrain Bourse, particularly future listings. The new listing rules aim to regulate the offering of securities in the Kingdom of Bahrain, which includes the conditions of the offer of securities and identifies the requirements of listing and offering, as well as the conditions and requirements of capital changes. In addition, the rules regulate the continuing obligations of issuers whose securities are listed in the Main Market as well as the suspension of trading listed securities and delisting of listed securities."

Corporate Action related timelines have also been recently enhanced in order to provide additional flexibility for investors when trading in the Bahrain market. The primary objective is to ensure complete transparency in the market with respect to the timelines of declaration and payment of dividends and bonus shares if any, explained Malti.

Javeri added: "In order to encourage companies to conduct business as usual and limit the impact of the COVID-19 outbreak, Bahrain Clear recently announced the offering of a Virtual AGM Management Service for listed companies explained Malti. Bahrain Clear aims to offer various digital solutions including the Virtual AGM Management Service to listed companies within its efforts to provide added-value services, as this innovative service aims at facilitating the accessibility to investors and enhancing participation in AGMs via virtual platforms."

BOTSWANA

Unweighted	Score
Standard Chartered	5.28

Weighted	Score
Standard Chartered	7.20

The Botswana Stock Exchange Limited (BSE) is Botswana's sole stock exchange given the responsibility to operate and regulate the securities market. The formation of the BSE can be traced back to 1989, when it was then known as Botswana Share Market (BSM).

At present, instruments listed on the BSE include Equities, Bonds and Exchange Traded Funds (ETFs).

As at the end of 2019, there were thirty-three listed companies on the BSE comprised of twenty-five domestic companies and eight foreign companies.

2019 was a big year for the African exchange as it began the implementation of a new technology platform for its central securities depository.

Chief executive Thapelo Tsheole said in the group's 2019 annual report: "To continue to better serve our stakeholders, we commenced the implementation of the new CSD system as part of our strategy on centralisation of trading, clearing and settlement of securities at the BSE. This is expected to be commissioned in the second half of 2020."

The Botswana market is fairly small and has grappled with low liquidity owing to excessive capital chasing few investable assets available on the Botswana Stock Exchange Limited (BSEL).

The market is predominantly in the hands of local pension funds and institutions that are typically long-term focused. In order to mitigate liquidity constraints, the BSEL formulated a 5-year strategic plan which is expected to drive sustainable economic growth by providing a gateway for raising capital and accessing diverse investment opportunities.

Vincent Baituti, Head of Investor Services at Stanbic Bank Botswana Limited, said: "The market and regulatory development pipeline in Botswana has grown substantially in 2019 and 2020. This is largely due to several initiatives arising from the BSEL strategy to align to international best practice, as well as regulatory deployments for more robust oversight. Highlights include the commencement of the Financial Intelligence Act and regulations seeking to address strategic deficiencies identified by FATF over the country's AML/CTF regime. This introduced requirements for ultimate beneficial owner (UBO) identification, which is not practical for global custodians and pooled investment structures. Stanbic Bank Botswana is actively lobbying for a more efficient solution."

He added: "The Non-Bank Financial Institutions Regulatory Authority (NBFIRA) issued draft asset protection guidelines and capital requirements for custodians seeking to enhance asset safekeeping procedures and maintenance of adequate prudential capital to cover risks emanating from custodial services. NBFIRA also deemed the BSEL a self-regulatory organisation, which should increase efficiency in the market."

Baituti concluded: "From a market infrastructure perspective the long anticipated implementation of the new CSD system is underway and it is expected that the system will pave the way for significant milestones such as market interface, securities borrowing and lending, settlement guarantee fund, settlement in central bank money, e-voting module and the establishment of a single national CSD. Good traction has been observed, such as issuance of draft settlement guarantee fund rules and draft securities borrowing and lending rules. The Covid-19 pandemic has delayed most of the activities, however, momentum is picking up following the easing of restrictions."

> "To continue to better serve our stakeholders, we commenced the implementation of the new CSD system as part of our strategy on centralisation of trading, clearing and settlement of securities at the BSE. This is expected to be commissioned in the second half of 2020."
>
> **Thapelo Tsheole, The Botswana Stock Exchange Limited (BSE)**

CÔTE D'IVOIRE

Unweighted	Score
Standard Chartered	4.75

Weighted	Score
Standard Chartered	6.36

Côte d'Ivoire is one of eight markets in the West African Economic and Monetary Union (WAEMU) (Benin, Burkina Faso, Guinea-Bissau, Mali, Niger, Senegal, Togo).

The union has a common currency (XOF) that is pegged to the euro (EUR). It also has a regional stock exchange, the Bourse Régionale des Valeurs Mobilières (BRVM) which is based in Abidjan, Côte d'Ivoire. The CSD is also housed in Abidjan (Côte d'Ivoire). The Dépositaire Central / Banque de Règlement (DC/BR) provides central registration, clearing and settlement services for all equities, corporate debt and government debt listed on the BRVM. Government debt without a BRVM listing is dematerialised at the central bank for the West African Economic and Monetary Union.

The local regulator of the securities market is Conseil Regional de L'Epargne Publique et des Marches Financiers.

> Côte d'Ivoire is one of eight markets in the West African Economic and Monetary Union (WAEMU)

Massikini Keita, Head of Investor Services at Stanbic Bank Côte d'Ivoire, said: "In October 2019 Standard Bank launched Investor Services in Côte d'Ivoire, expanding the bank's existing regional Investor Services capabilities to cover the West African Economic and Monitory Union (WAEMU) region.

Keita added: "This expansion aligns with Standard Bank's strategy to be the preferred provider for global and domestic institutional investors across Africa."

EGYPT

Unweighted	Score
HSBC	5.00

Weighted	Score
HSBC	6.15

Egypt has continued its drive to ease the investment climate for investors by approving economy boosting decisions that saw a reduction in a number of market fees and taxes. This is in addition to EGP 20 billion being injected in the market to support the exchange during the COVID-19 crisis.

The changes include reduction in stock market trading fees for equities and fixed income instruments, stamp tax and dividend tax. The investor protection fund has also been reorganised to allow the fund to purchase listed stocks not exceeding 10% of the fund's assets under management.

To encourage and attract additional investment, Egypt is also establishing a new CSD for government debt securities such as treasury bills and government bonds through its partnership with Euroclear.

"The country is also progressing its agenda towards ensuring international standards are made available to investors with the Central Bank of Egypt asking all banks operating in Egypt to implement IBAN from July onwards," says Ehab Eissa, head of securities services Egypt HSBC.

As part of the preventive and precautionary measures taken by the Egyptian Stock Exchange management and its affiliate bodies to allow continuity of corporate activity during the pandemic, the Egyptian Information Diffusion Company - affiliated to the Egyptian Stock Exchange - has developed an electronic voting system that enables shareholders of companies to vote remotely.

ESWATINI

Unweighted	Score
Standard Bank	5.23

Weighted	Score
Standard Bank	7.17

Eswatini, which sits between Mozambique and South Africa, was formed in 2018 after the small country in the south of Africa changed its name from Swaziland.

The country has a developing economy and its currency, the lilangeni, is pegged to that of South Africa which is also its largest trading partner.

The economy comprises agriculture, which employs about three quarters of the population, manufacturing and services. Eswatini also exports to the US and European Union.

The stock exchange, which can trace its roots back to 1990, offers equities, corporate and government bonds, is regulated by the Capital Markets Development Unit of the Central Bank.

There are currently seven listed companies, four dealing members and the Central Bank of Swaziland acts as the sole plan sponsor. The Financial Markets department of the Central Bank of Swaziland is responsible for the country's central securities depository and automated clearing house.

The exchange launched in August 2019 a new Automated Trading System, to enable the electronic trading of shares.

Prime Minister Ambrose Mandvulo Dlamini said at the launch: "I recall our first breakfast meeting where this gigantic project was introduced to me while I was in my previous employment. I was excited because I knew that the automation will see the exchange moving from a manual system to joining other modern markets."

The Prime Minister said the new trading system was in line with government's commitment to uplifting the information, communications and technology sector and bringing efficient, affordable and convenient services at the fingertips of all Emaswati.

He said: "For both the sell and buy sides, the ATS will revolutionise Eswatini's capital markets by reducing

> "I recall our first breakfast meeting where this gigantic project was introduced to me while I was in my previous employment. I was excited because I knew that the automation will see the exchange moving from a manual system to joining other modern markets."

Eswatini Prime Minister, Ambrose Mandvulo Dlamini

the cost of transactions, enhancing market liquidity and increasing transparency.

"Also since the ATS solution will come with mobile trading, it was clear to me that it will allow retail investors and company secretaries to use native applications like Android and iOS applications to enquire about their portfolios in the comfort of their homes or offices through an online Investor page," the Prime Minister added.

Lindiwe Manana, Manager, Investor Services at Standard Bank Eswatini Limited, said: "Although the Eswatini market was opened 10 to 15 years ago, to date there has not been any foreign investor activity in the securities market outside of South African institutions. The Eswatini Stock Exchange (ESE) still comprises 100% domestic investors."

Manana added: "In mid-February 2019, the ESE launched its long-awaited automated trading system (ATS). ATS / CSD integration tests are still ongoing between the ESE, the Central Bank of Eswatini (CBE) and the service providers. It is hoped that this will assist with improved trading volumes and possibly the launch of an equities CSD in the market. This could attract foreign investor activity in the securities market outside of South African institutions. The market is also looking to broaden the scope of listed instruments and the ESE has submitted amendments to the listing requirements and to the Financial Services Regulatory Authority (FSRA)."

The FSRA has since issued amendments for comment to all financial services legislation so as to harmonise and modernise the related legislation.

GHANA

Unweighted	Score
Standard Chartered	4.79

Weighted	Score
Standard Chartered	6.55

The Ghana Stock Exchange is the principal stock exchange of Ghana, based in the capital Accra. The exchange was incorporated in July 1989 with trading commencing in 1990. The key financial instruments available to foreign investors in the Ghanaian capital and money market are equities and bonds (both government and corporate).

> We are seeing greater traction in the Swift adoption project and the CSD and stock exchange continue to look for a cost-efficient Swift model for brokers to create a more Swift-enabled market.
>
> **William Sowah, Stanbic Bank Ghana Limited**

The regulator – the Bank of Ghana (BoG) – has in the past two years focused on consolidating and strengthening the banking and financial sector, revoking a number of licences from local banks and micro-finance companies. In November 2019 the Securities and Exchanges Commission of Ghana (SEC) revoked the licences of 53 fund management companies for their failure to perform their functions efficiently, honestly and fairly and breach of applicable securities laws, rules and regulations.

In the same month the BoG launched the Global Master Repurchase Agreement (GMRA)-based guidelines for repurchase (Repo) trading on the Ghanaian market and the Ghana Fixed Income Market (GFIM) effective April 2020. The guidelines will serve as a tool for effective monetary policy transmission and as a channel through which the central bank can act more swiftly as a lender of last resort.

William Sowah, Head of Investor Services at Stanbic Bank Ghana Limited, said: "User Acceptance Training (UAT) for the Online Initial Public Offering (IPO) Portal and Client CSD interface has now been completed with identified issues successfully resolved. Extended user training is currently underway for market participants prior to go-live which is yet to be communicated."

He added: "We are seeing greater traction in the Swift adoption project and the CSD and stock exchange continue to look for a cost-efficient Swift model for brokers to create a more Swift-enabled market. Stanbic Bank Ghana successfully led engagements with regulators and market infrastructure providers for the implementation of Global Depository Note (GDN) programme in relation to Ghana Government Debt securities."

London-based TP Icap said in October 2019 it had made available the first OTC data on the key African markets.

The data covers asset classes including FX, fixed income and interest rates across nine countries initially including Ghana.

The firm says the data will benefit companies that have exposure to the continent across front-office activity, including price discovery, accurate securities pricing, as well as middle and back offices, including risk management, valuation and price verification.

"When we speak to customers, they say gaining access to Africa has always been something of a challenge," Jonathan Cooper, global head of sales, told Global Investor.

"The longstanding issue has been how they get access to timely and trustworthy data that is reliable."

ISRAEL

Unweighted	Score
Bank Hapoalim	5.16
Citi	5.13

Weighted	Score
Citi	6.31
Bank Hapoalim	6.21

The Tel Aviv Stock Exchange (TASE) remains largely a domestically-traded market but is has been working hard in recent years to increase its international appeal.

Most recently, the Israeli exchange changed in February 2020 its opening time by moving it back 15 minutes to

10am in Tel Aviv to coincide with the market opening in the main European markets.

The Opening Auction takes place at 10am on the shares that are included in the Tamar Universe, in units of exchange-traded funds traded on the equity market, in units of foreign exchange-traded funds that are traded on the equity market and in units of closed-end mutual funds.

Orit Elpeleg, vice president at Bank Hapoalim, believes another recent highlight was TASE's listing in August 2019.

He said: "The Tel Aviv Stock Exchange (TASE) marked a significant inflection point in its activity and an important milestone in its life as a business enterprise when it embarked on an IPO and became a public company. As of 1 August 2019, 66 years following its establishment, TASE shares began trading on the Tel Aviv Stock Exchange, as the Exchange joined the league of exchanges worldwide that have undertaken similar measures in recent years."

TASE members, made-up of banks and non-bank brokerage firms, handle trading on TASE on behalf of their clients.

The exchange has an equities clearing house called the TASE Clearing House (TASECH), which was established in 1966 and has some 16 members in total. The TASECH is a wholly owned subsidiary of TASE and is supervised by the Israel Securities Authority.

TASE also owns and operates a derivatives clearing house called the MAOF Clearing House Ltd.

JORDAN

Unweighted	Score
Bank of Jordan	6.74
Standard Chartered	5.49

Weighted	Score
Standard Chartered	7.43
Bank of Jordan	4.62

The Amman Stock Exchange (ASE) was established in March 1999 as a non-profit independent institution; authorized to function as a regulated market for trading securities in Jordan.

On February 20, 2017, the ASE has been registered as a public shareholding company completely owned by the government under the name "The Amman Stock Exchange Company (ASE Company)".

The ASE offers a range of instruments including shares on various firms including banks, insurance firms, real estate, health care services firms, educational companies, hotels and tourism firms, transportation companies and various other types of companies.

The Amman exchange also offers bonds, sukuk instruments, depositary receipts and investment funds.

The ASE also worked with the Jordan Securities Commission (JSC) and the Securities Depository Center (SDC) prepared new Directives to allow trading over-the-counter, and modified the Listing Securities Directives at the ASE to enable off-market trading.

SDC was established on May 10 1999 with the aim of ensuring safe custody of ownership of securities; registering and transferring ownership of securities traded on ASE; and settling the prices of securities among brokers. It is a non-profit legal entity, with financial and administrative autonomy, and is managed by the private sector.

KENYA

Unweighted	Score
Standard Chartered	5.26

Weighted	Score
Standard Chartered	7.25

In Kenya a maturing savings industry is driving greater liquidity and infrastructure development, which has increased the country's appeal to foreign investors.

Reflecting this demand, the Nairobi Securities Exchange PLC (NSE) introduced a new equities trading system following approval by the Capital Markets Authority (CMA) on October 8 2019.

The new equities trading platform is provided by LSEG Technology - part of the London Stock Exchange Group and one of the world's leading developers of high performance trading systems.

The system reflected significant changes to the structure of the current trading process. The new system allows for Short Selling and Day Trading, which will revolutionise the capital markets.

The NSE Chief Executive Mr. Geof-

frey Odundo said at the time: "We are excited to have an upgraded Automated Trading System that offers a more robust platform, which supports diversification of trading securities.

The system is more efficient, scalable and flexible, and is in line with our strategic objective of increasing availability and accessibility of our system.

We expect a rise in trading activities and look forward to working together with all our stakeholders as we transition to the system."

Janet Waiguru, Head of Investor Services at Stanbic Bank Kenya Limited, said: "2019 was a busy year in Kenya, including the official launch of the Nairobi Securities Exchange (NSE) derivatives market.

This is the second bourse in sub-Saharan Africa offering derivatives. In October, the NSE and Central Depository and Settlement Corporation (CDSC) upgraded their systems and the CDSC introduced two daily settlement cycles."

She continued: "These changes will allow for greater Swift connectivity in the future, as well as adding more products in this market, such as securities lending and borrowing (SLB).

In addition, the Tax Procedures Act 2015 (TPA) was amended to empower the Commissioner General to waive the requirement of a Taxpayer Personal Identification Number (TPIN) for purposes of opening a bank account for specific persons including foreign investors.

This was an advocacy win for foreign investors. In November the Data Protection Act 2019 was signed into law."

Waiguru concluded: "The market's regulator Capital Markets Authority (CMA) continues to partner with key stakeholders to review the proposed regulations to govern SLB and short selling, as well as the framework for the establishment of a hybrid bond market.

These are targeted towards introducing new products in the market. At the beginning of 2020 the first green bond was listed in Nairobi and London, one of the regulator's innovations in 2019."

KUWAIT

Unweighted	Score
HSBC	5.34

Weighted	Score
HSBC	6.49

Kuwait is a small, wealthy country that boasts the world's sixth largest oil reserves. Its population is largely made up of ex-pats so there is a strong investment and savings culture. The Kuwaiti dinar is the highest valued currency in the world. Kuwaiti investment companies manage about a third of the assets in the Gulf region. Kuwaiti investment managers hold more assets outside of Kuwait than domestic assets so the investment culture has an international focus.

The Kuwaiti sovereign wealth fund is the world's oldest state-backed investment fund, established in 1953.

The Kuwait Stock Exchange is one of the largest in the region and is topped only by the Saudi exchange, which lists that country's vast state-backed industries. The exchange has 172 listed companies, comprising financial services firms, commodities, telecoms and consumer firms. The exchange has ten brokers and eleven data service providers including Bloomberg, Thomson Reuters and ICE Data Services.

Kuwait Clearing Company (KCC) S.A.K. was established in 1982 by the authorities, to manage and resolve issues related to the collapse of the unofficial stock market, commonly known as the 1982 Souk Al-Manakh crisis.

More recently, the KCC introduced in May 2020 "eAGM", a new service that will enable shareholders to participate in AGMs electronically. The service will allow the shareholder to review and vote on AGM resolutions.

State Street landed in October a custody mandate from the Omani Staff Pension Fund for Petroleum Development Oman (PDO).

The bank will provide custody and investment solutions services for more than $2.3 billion (£1.8 billion) worth of assets internationally and in the Gulf Cooperation Council (GCC), which is a regional union between various Gulf states including Kuwait.

Emma Almerzah, Head of Securities Services, Kuwait at HSBC, said: "The Kuwait market is mid-way through a multi-phase market development plan being led by the Capital Markets Authority (CMA) to introduce best market practice and attract more investment from international institutional investors."

Almerzah added: "The changes already introduced in the first phases were recognised by index providers FTSE Russell and MSCI, with FTSE adding Kuwait to their Secondary Emerging market index in 2018 and MSCI scheduled to include the Kuwait index in the Emerging Market index in November this year. In anticipation of this, the CMA and the Kuwait Clearing Company (KCC) have brought forward the implementation of net settlement, applicable for both cash and securities.

This will bring benefits to investors by addressing funding challenges and reducing settlement risk."

She added that in November 2019, regulations were amended to allow omnibus account structures for international investors. In consideration of feedback received from investors during the consultation period for omnibus accounts, the market will be introducing a new allocation model, also expected to be in place ahead of the MSCI inclusion.

Almerzah said HSBC has been in ongoing discussions with the CMA and the KCC regarding the existing market account opening process and documentation requirements, with the aim of easing market access for international investors. "Our advocacy efforts for a simplified account opening process in the Kuwait market have been successful, with the KCC introducing a simplified account opening process for HSBC clients in April. The documentation requirements have been significantly reduced and clients benefit from reduced account opening turnaround times."

She concluded: "The KCC have launched an E-dividend process and in consideration of COVID-19 related challenges, the CMA have brought forward the implementation of an electronic voting process. The KCC have released the requirements to activate a temporary electronic voting process for the 2020 Corporate action season and HSBC is in talks with the KCC to progress the implementation of both E-dividends and electronic voting."

MALAWI

Malawi remains a small market in terms of foreign investor activity but active with regards to domestic clients. There are 15 listed companies on the Malawi Stock Exchange (MSE), two of which are foreign listed companies.

There are few listed government treasury notes and a corporate bond. The market is predominantly in the hands of local pension funds and institutions that are typically long term focused.

Wilson Kuyokwa, Manager, Investor Services at Standard Bank PLC, said: "Foreign investor activity has picked up in the market following the dematerialisation of listed equities in 2018 and the upgrade to the CSD in December 2019. The market remains very active with domestic clients. There are 15 listed companies on the Malawi Stock Exchange (MSE), with Airtel Malawi being the latest listing in February 2020. There are few listed government treasury notes and a corporate bond.

> "Foreign investor activity has picked up in the market following the dematerialisation of listed equities in 2018 and the upgrade to the CSD in December 2019. The market remains very active with domestic client"
>
> **Wilson Kuyokwa, Standard Bank PLC**

"The market is predominantly in the hands of local institutions that are typically long-term focused. To mitigate liquidity constraints, the MSE has started courting new companies to raise capital through the exchange and this has started yielding results with two new listings after a 10-year break. The long-awaited Securities (Amendment) Bill 2016 to amend the current Securities Act 2010 is still being reviewed by the Ministry of Justice. There are no indications on when the bill will be brought before Parliament for debate."

The Reserve Bank of Malawi (RBM), through their Central Securities Depository Division, confirmed the successful implementation of their system upgrade to the new CSD system effective November 29 2019.

Kuyokwa added: "In February 2020, the RBM published guidelines on Information and Cyber Security Risk Management for banks in Malawi. The guidelines seek to assist banks to effectively manage Information and Cyber Security Risk by outlining the minimum requirements relating to Information and Cyber Security Risk Governance, in terms of Information and Cyber Security Risk Management Frameworks, Cloud Computing, Information Technology (IT) service management, Business Continuity Management, and e-banking."

MAURITIUS

Unweighted	Score
HSBC	5.45

Weighted	Score
HSBC	7.17

The Stock Exchange of Mauritius has a state-of-the-art operating system, trading is effected daily for five-and-a-half hours, the settlement cycle is T+3, the total market capitalisation has crossed the $12 billion mark, and the internationalisation process is in full swing. SEM has set up a multi-currency listing, trading and capital-raising platform and modernised its listing framework to list a wide variety of multi-asset class products.

Feizal Hosany, Head of Securities Services for Mauritius, at HSBC, said: "The Stock Exchange of Mauritius (SEM) continues with its strategy of internationalization despite various constraints. SEM has diversified its product offering whereby Issuers can have dual listing (primary/secondary listing). The trading platform supports multi currencies such as USD, GBP, EUR, ZAR besides the local currency (MUR).

Hosany added: "Investors are able to have access to ETFs, specialized debt products, structured products amongst others. The SEM has recently amended its trading rules to allow the establishment of links with International Central Securities Depositories (ICSD's) like Euroclear and Clearstream. To keep pace with technology, SEM has also issued its mobile app known as the mySEM mobile app for the benefit of Investors. This allows users to follow the market in real time."

MOROCCO

Unweighted	Score
Citi	5.25

Weighted	Score
Citi	6.54

According to Omar Senhaji, head of SGSS Morocco, there were three significant changes to rules and regulations over the last 12 months.

The first of these was the implementation of real estate funds regulations to enable the creation of a real estate funds industry, which he describes as a major event in the Moroccan market. Several real estate asset managers are being created (four so far, including SG Morocco) and funds are expected to be launched by Q3 this year.

The next major development was the implementation of the new general rules of the Casablanca Stock Exchange following the recent enactment of the new stock exchange law. The new rules clarify from an operational perspective the implementation of the listing of ETFs, foreign currency listings, less stringent requirements for SMEs listings, etc.

"While securities lending has had a regulatory framework since 2012, it has not become fully operational as the law had a few shortcomings," explains Senhaji. "Draft legislation has been proposed to remedy these shortcomings, namely the ability of foreign investors to participate in local securities lending operations; the ability of custodians to pool lendable assets; and the anonymity of securities lending operations." The law is still pending approval.

NAMIBIA

Unweighted	Score
Standard Bank	4.61

Weighted	Score
Standard Bank	5.21

Namibia is a small market in terms of foreign investor activities. There are 47 listed companies on the Namibia Stock Exchange (NSX) down from 49, as 2 companies were suspended and subsequently delisted in February 2020 – 32 on the main board, of which 10 are locally listed, 9 on the Exchange Traded Products and 6 on the Development Capital Board (DevX). The bulk of the listed companies have their primary listing on the JSE.

There is also a small inward listing from Canada and Australia in the Mining Sector. The market is predominantly in the hands of local pension funds and institutional investors, as they practice a buy and hold strategy. In order to mitigate liquidity constraints, the NSX has started courting new companies to raise capital through the exchange which will ultimately increase liquidity and free-floating investment opportunities.

There is a key drive from Government around the possibility of listing commercial state-owned entities. The ownership structure in terms of the New Equitable Economic Empowerment Framework (NEEEF) is currently being clarified.

While the market expected the NSX primary listing of local commercial banks by end of 2019 in terms of Namibia Financial Sector Charter (NFSC), the only listing was that of Standard Bank Holdings Limited, which officially listed on the NSX on 15 November 2019.

Patrick Morgan, Head of Investor Services at Standard Bank Namibia Limited, said: "Much of the development and changes in Namibia rely on the enactment of the Financial Institutions Market (FIM) Bill. The bill seeks to consolidate and harmonise legislations governing financial institutions, financial intermediaries and financial markets in Namibia. A key development will be the establishment of a central securities depository (CSD). Unfortunately, there have been several delays to the promulgation of the bill which is yet to be approved. In the meantime, work is being done on the associated regulations and the establishment of a CSD."

Morgan said: "The CSD project is housed under the Namibian Stock Exchange (NSX) with the assistance of an industry working committee with the Bank of Namibia as the project sponsor. The CSD will be a standalone entity, which is already registered, and its current shareholding structure is 51% owned by the NSX and 49% by the Bank of Namibia. We understand that the market will look to reduce the equities settlement cycle from T+5 to T+3 once the CSD is implemented. Custodian banks, through the informal Custodians Association, have commenced with our readiness for the CSD and have started discussing pertinent issues to ensure seamless transition once the CSD is implemented."

He concluded: "The NSX was recently granted the licence to formalise the bond market. Currently, bonds are not traded at the exchange and not all transactions are reported. Following that the NSX procured a Bond Trading System from STT, which was demonstrated to all market participants during March 2020. All trading parties in the bond market will be compelled to make use of the system in order to support the initiative and produce the desired results. Among others, the bond market will reduce settlement risks, increase liquidity and provide pricing transparency for the market."

> "Much of the development and changes in Namibia rely on the enactment of the Financial Institutions Market (FIM) Bill. The bill seeks to consolidate and harmonise legislations governing financial institutions, financial intermediaries and financial markets in Namibia."
>
> **Patrick Morgan, Standard Bank Namibia Limited**

NIGERIA

Unweighted	Score
Standard Bank	5.57

Weighted	Score
Standard Bank	5.71

Nigeria has the largest population of all the countries in Africa at over 200 million and the third largest young population in the world, with almost 100 million people under the age of 18, which puts it only behind China and India for young people.

This size and youth of its population means Nigeria represents a huge investment opportunity. Nigeria also has the largest economy in Africa which relies on a mix of industries including natural resources, finance, legal and communications.

Nigeria is the 12th largest producer of petroleum in the world and the eighth largest exporter, and has the 10th largest proven reserves. Petroleum plays a large role in the Nigerian economy, accounting for 40% of GDP and 80% of Government earnings.

The Nigerian Stock Exchange, founded in 1960, has some 170 listed companies. The exchange also offers bonds and exchange-traded funds.

The exchange received in May an order from the Federal High Court sanctioning the scheme of arrangement for the NSE's demutualisation.

The chief executive officer of NSE Oscar Onyema said: "The NSE demutualisation process is moving ahead in line with the expected sequence of events, following the conclusion of its Extraordinary General Meeting and Court Ordered Meeting (COM) in March 2020."

He added: "Understandably, in current circumstances, some of the legal and regulatory steps required have taken a little longer than originally expected but today we have received court sanction for the results of the EGM, in particular, the Scheme of Arrangement and we are looking to secure the reregistration of the Exchange as well as the approval of the Securities and Exchange Commission within the coming months."

Members of the NSE had approved the demutualisation scheme of The Exchange at an EGM in March 2017. This was followed by the signing of the Demutualisation of The Nigerian Stock Exchange Bill into law in August 2018.

In December 2019, the Securities and Exchange Commission of Nigeria in a No Objection letter, gave its consent to the NSE to hold the COM and EGM that would facilitate its conversion from a not-for-profit entity limited by guarantee into a profit-making, public limited liability company owned by shareholders.

Akeem Oyewale, Head of Investor Services at Stanbic IBTC Bank Limited, said: "In 2019 Stanbic IBTC Bank continued to engage regulators and the market on a wide range of issues such as the nominee concept and how we represent clients as custodians; the issuance of ISINs for Open Market Operations Tbills by the Central Bank of Nigeria; and the extension of Swift messages at the CSD for improving intra-market efficiencies such as straight-through processing (STP).

Oyewale added: "At the beginning of 2019, ISINs were issued for Nigerian treasury bills (NTB) by the Debt Management Office. On 19 December 2019, the Central Bank of Nigeria announced that they commenced the issuance of ISINs for Open Market Operations (OMO) Bills. Once fully operational this will bring the market closer to the goal of having ISINs for all traded Tbills.

"NTBs and OMO bills are now traded individually and will be cleared and settled individually on the FMDQ QeX platform. Both bills now have separate maturity dates in a bid to clearly distinguish them. This follows the restriction of trading in OMO bills by domestic investors by the Central Bank of Nigeria in October 2019."

Oyewale concluded: "In June 2019, securities lending became available across the market, including foreign investors, with a good range of securities available for collateral. Stanbic IBTC Bank processed a number of securities lending and borrowing transactions as one of the SEC-licensed Securities Lending Agents in Nigeria. There has been continuous and increased awareness / engagement among key market participants including the Nigerian Stock Exchange, asset managers and brokers, which increases the appreciation of the product in the market."

OMAN

Unweighted	Score
HSBC	5.39

Weighted	Score
HSBC	7.33

The Muscat Securities Market is the only stock exchange group in Oman, established by a Royal Decree issued in June 1988, to regulate and control the Omani securities market. MSM lists equities, bonds and mutual funds on over 100 listed companies, which are supported by 14 brokers.

State Street landed in October a custody mandate from the Omani Staff Pension Fund for Petroleum Development Oman (PDO).

The bank is providing custody and investment solutions services for more than \$2.3 billion (£1.8 billion) worth of assets internationally and in the Gulf Cooperation Council (GCC), which is a regional union between Oman, Saudi Arabia, UAE, Bahrain, Kuwait and Qatar.

Despite PDO being a client of the custodian for many years, the mandate

consolidates the partnership with the firm's middle-to-back office processes and one of Oman's largest private sector employers.

Oliver Berger, head of the MENA region at State Street, said: "We are delighted PDO has selected us to be the single source of information for all of its reporting and asset servicing needs.

"By consolidating its current providers, PDO will benefit from having a single point of contact and consistency across all of its data and reporting; as well as gain access to our global presence and deep local insight within the GCC."

Haifa Al Khaifi, finance director and chairperson of the Omani Staff Pension Fund at PDO, added: "We are looking forward to this partnership which offers us important benefits, business opportunities, and enhances our relationship with State Street."

The Government of Oman owns the majority of PDO, while Shell Group, Total and Partex own the rest. The firm distributes most of the country's crude oil production and natural gas supply.

Younis Al Balushi, Head of Securities Services, Oman at HSBC, said: "In an effort to improve the voting process in AGMs and other shareholder meetings in Oman, HSBC had recommended to the Muscat Clearing & Depository (MCD), the introduction of an electronic voting platform through which shareholders and their custodians can register votes."

Al Balushi added: "The Capital Market Authority (CMA) formulated the legislative procedure framework for convening general meetings via electronic means and also issued the rules for convening the general meetings of public joint stock companies and investment funds via electronic means.

"To implement the CMA mandate, the MCD has developed a secure local electronic platform to facilitate the process of convening and administering general meetings. A user guide for electronic voting has been issued by the MCD, which is also available on their website. HSBC Oman has already updated the E-Voting platform with investor details."

QATAR

Unweighted	Score
HSBC	5.42

Weighted	Score
HSBC	6.69

Qatar Stock Exchange (QSE) QSE was established in 1995 under its initial name Doha Securities Market (DSM) for the purpose of trading the listed securities in addition to supervisory and regulation roles. The name was then modified to the Qatar Stock Exchange after converting the market to a Qatari joint stock company and transferring the supervisory and regulation functions to the QFMA, and the market became licensed by the authority to carry out all securities trading activities in the country.

The Qatar Stock Exchange offers stocks, exchange-traded funds and bonds, supported by eight brokers.

Qatar Central Securities Depository (QCSD) Qatar Central Securities Depository (QCSD) is a service providing company, licensed by QFMA as the sole Depository in Qatar to provide safekeeping, clearing and settlement services of securities and other financial instruments listed on QSE.

Shreen Abeysekara, Head of Securities Services, Qatar at HSBC, said: "The Qatar Central Securities Depository (QCSD) has initiated a project to replace the existing operating system. The new system, TCS BaNCS Market infrastructure V720, is expected to be implemented by the second half of 2020."

The QCSD is currently in the testing phase with the Qatar Stock Exchange (QSE), post which further testing will be conducted with other market participants.

Abeysekara added: "The QSE has been offering a single window concept for local companies that wish to list on the QSE. This is part of the QSE campaign to encourage public offering, listing and admission to trading on the local stock exchange. The single window allows companies to complete all formalities through a central and single location."

In Qatar's run up for the Financial Action Task Force (FATF) review that was previously expected to be undertaken in June this year (now postponed to next year due to the COVID-19 pandemic), a new Anti-Money Laundering (AML) and Counter Terrorist Financing (CTF) law was issued in September 2019, following which the Qatar Financial Markets Authority (QFMA) amended the AML and CTF regulations in January 2020.

In line with the amended regulations, the Central Depository made changes to the Ultimate Beneficial Ownership (UBO) disclosure requirement and also requested additional information from investors while opening an account with the depository.

Abeysekara said: "The new UBO declaration also triggered a remediation of all the existing accounts at the Central Depository. Due to the global pandemic environment, many clients were facing challenges in complying with the new set of requirements. The QCSD have been understanding of the issues faced by investors and have extended the deadline for the submission, as well as showing flexibility in accepting scanned copies of the documents till such time the situation normalises."

SAUDI ARABIA

Unweighted	Score
HSBC	5.34

Weighted	Score
HSBC	6.64

After successfully navigating major milestones in 2019, which included the kingdom's successful inclusion into the emerging market indices by major index providers and the successful floatation of Saudi Aramco, the Saudi Stock Exchange has now directed efforts on a material transformation of the post-trade infrastructure to further align the Saudi market to its global counterparts explains Madhur Bhandari, head of securities services Saudi Arabia HSBC.

"This programme focusses on many aspects such as the upgrade of cen-

tral securities depository systems and processes, launch of central counterparty clearing for clearing of securities, and introduction of derivatives," says Bhandari.

The CCP will guarantee trades undertaken between counterparties and will develop future clearing services in accordance with best international risk management practices and standards along with introducing new asset classes and services to investors. This will in turn further strengthen the current market infrastructure, reduce systemic risk and enhance market efficiency.

As a result of introducing the CCP, the whole post trade infrastructure will change and formal distinction will be made between trading, clearing, and settlement functions.

"The transformation programme will enhance investors' experience throughout trade life cycle by implementing new features such as post-trade management, novation settlement, multiple intraday settlement batches and ISO messaging," says Bhandari.

SOUTH AFRICA

Unweighted	Score
Nedbank Limited	6.38
Standard Bank	5.61
RMB	5.06
Standard Chartered	4.41

Weighted	Score
RMB	4.74
Standard Bank	4.69
Standard Chartered	4.39
Nedbank Limited	3.92

The South African market has successfully managed and implemented a number of projects over the last 12 months. Strate's BaNCS MI system

went live in October 2019, the CSD's digital solution for reporting and matching of unlisted bonds was introduced in November 2019 and the e-voting solution was technically implemented in December 2019.

The Johannesburg Stock Exchange (JSE) has taken a view to focus on internal developments and internal upgrades over the next 12 months notes Llewellyn Ford, head of investor services Standard Bank.

"In May 2019 the JSE successfully launched the next phase of ITaC – Equity Derivatives (EDM) and Currency Derivatives Markets (FXM)," he says. "This project still has further phases to be implemented. However, the next phase is pending legislation changes regarding the placement of securities as collateral."

The JSE has embarked on the process of applying for independent central counterparty (CCP) status.

"Overall, the next 12 months for the South African market will see fewer larger projects, aside from the mandatory Swift standards release guide (SRG) changes, and more of an internal focus by market participants," adds Ford.

TANZANIA

Unweighted	Score
Standard Chartered	4.97

Weighted	Score
Standard Chartered	6.71

Tanzania is a large country in Eastern Africa the boasts some of the continent's top tourist attractions therefore tourism is a major source of revenue. Agriculture, telecommunications and financial services are also significant but the investment market is domestically focus so the market was largely unaffected by the Global Financial Crisis of 2008.

The Dar es Salaam Stock Exchange was founded in 1996 and launched in central securities depository in 1999.

The exchange, based in Tanzania's capital, launched in 2006 a new Automated Trading System linked with an upgraded Central Depository System.

The exchange currently has 13 dealing members and eight custodians including Standard Chartered and StanBic. There are 28 listed stocks and three corporate bonds available for trading, according to the exchange's website.

The key financial instruments available for investment are equities, corporate bonds, commercial paper, warrants, collective investment schemes, government bonds and treasury bills.

At this stage treasury bills and government securities cannot be held by foreign investors from outside East Africa, but efforts are underway to allow all foreign clients to access these securities. A draft of the foreign exchange regulation was shared with stakeholders for their review and comments. Stakeholders have reviewed and submitted feedback. No update has been provided from the government on when this is going to be implemented.

Andrew Mgunda, Head of Investor Services at Stanbic Bank Tanzania Limited, said: "All securities in the market are issued, traded and held in dematerialized form at the CSD. Unlisted securities are traded over the counter (OTC) in the physical certificate form; however these have not been traded."

Mgunda said: "In February 2019, the Dar es Salaam Stock Exchange (DSE) extended its trading session, from 10h00 to 16h00 (GMT+3). Pre-auction and auction session times remained unchanged, while the open session was extended by an hour. A key change in this market in 2018 was the adoption of negative affirmation in settlement process by custodian banks. Efforts to make the negative affirmation online have not succeeded. The market continues to lobby for changes in the DSE and CSD rules. The process is expected to be completed in 2020."

He concluded: "The Capital Markets and Securities Authority (CMSA) is planning to change their name to Capital Markets Authority (CMA). The CMSA has submitted their proposal together with other amended and proposed rules to the treasury. The proposal will then be taken to the cabinet secretary for review before they are tabled to the parliament and president for approval."

UGANDA

Unweighted	Score
Standard Chartered	5.21

Weighted	Score
Standard Chartered	6.92

Uganda is a land-locked country in East Africa, its capital and largest city is Kampala. Despite massive crude oil and natural gas reserves, the economy is largely reliant on agriculture.

The Uganda Securities Exchange is the principal stock exchange of Uganda. It was founded in June 1997. The USE is operated under the jurisdiction of Uganda's Capital Markets Authority, which in turn reports to the Bank of Uganda, Uganda's central bank. The exchange opened to trading in January 1998.

The Securities Central Depository (SCD) was established to operate as a subsidiary company of the Uganda Securities Exchange. Its core mandate was to provide centralised depository, clearing and settlement services for the Ugandan equity and debt markets. The company became operational in July 2010.

The setting up of SCD has brought about prompt and efficient clearing and settlement of trades while at the same time reducing some of the inherent risks in the process. The SCD provides an enhanced clearing and settlement service to investors and market players. The SCD is regulated by the CMA and complies with the International Organisation of Securities Commissions (IOSCO).

In July 2015 the SCD improved its services through the automated trading platform which provides an online access to its members. Trades are settled within a rolling T+3 settlement cycle on a Delivery versus Payment (DvP) basis. Final and irrevocable transfer of funds occurs through the settlement bank on settlement date.

The SCD has established a Guarantee Fund to guarantee the settlement of transactions in the event of a default by a Participant. The fund is managed by the USE's Business Conduct Committee that monitors operations relating to the operations of the SCD.

The depository has seven brokers and five custodians including StanBic and Standard Chartered.

Andrew Omiel, Head of Investor Services and Financial Institutions at Stanbic Bank Uganda Limited, said: "We continue to see slow progress in the advancement of the Capital Markets Authority (CMA) 10-year strategy set out in 2016. The guidelines on domestic Exchange Trade Funds (ETFs) and Depository Receipts (DRs) aim at giving the market issuance guidelines and provide investors with new product lines, while licensing and approval regulations provide the criteria for issuing licenses and applicable fees to the different players in the capital markets industry in Uganda. The delays are due to the lengthy Government processes in dealing with legislation, procurement, regulations and stakeholder consultations."

He added: "The Uganda Securities Exchange Limited (USE) is proposing to remove the re-issuance and printing of duplicate certificates in instances where the original is lost or obliterated for purposes of completion of private transfers and any other transaction. The USE has proposed amendments to the Guarantee Fund Procedures."

UNITED ARAB EMIRATES

Unweighted	Score
Deutsche Bank AG	5.91
HSBC	5.64
First Abu Dhabi Bank	5.63

Weighted	Score
HSBC	6.71
Deutsche Bank AG	5.29
First Abu Dhabi Bank	3.06

Dubai Financial Market (DFM) has firmly moved towards the introduction of the CCP model and ringfencing the risk to its CSD and the exchange and

has also removed the trade validation requirement from the custodian and moved it to the clearing member explains Ahmad Naseer, head of securities services UAE at First Abu Dhabi Bank.

"Furthermore, the introduction of NIN splitting by Abu Dhabi Stock Exchange (ADX) and DFM is a step in the right direction as it frees the client to choose multiple providers to hold their equity holdings in a single NIN," he continues.

Rocio Echagüe, head of securities services UAE HSBC notes that the new structure separates post-trade services from exchange services (listing and trading) and aims to enhance protection to investors.

"A transition period of six months is provided to market participants, including local custodians, to prepare and adhere to any legal requirements and operational processes linked to the new CSD and CCP companies commencing operations," he says.

The Securities and Commodities Authority (SCA) also issued draft regulation concerning the issuing and offering of crypto assets in the UAE and a new corporate governance guide for public joint stock companies.

ZAMBIA

Unweighted	Score
Standard Chartered	4.81

Weighted	Score
Standard Chartered	6.51

Zambia is a land-locked country in central-southern pnd art of Africa. Its capital is Lusaka and its main industries include mining, largely of copper, aagriculture, which is the country's main employer. The country is developed in terms of its use of solar power and hydro-electricity.

> Founded in 1993, The Lusaka Stock Exchange is the principal stock market of Zambia.

African Green Resources (AGR) invested in September 2019 $150 million in 50 megawatt (MW) solar farm, along with irrigation dam and expanding the existing grain silo capacity by 80,000 tonnes.

The Lusaka Stock Exchange is the principal stock market of Zambia. Founded in 1993, it is located in Lusaka and a member of the African Stock Exchanges Association. The exchange currently has six brokers, according to its website.

The LuSE Central Share Depository (LuSE CSD) is a department of the Lusaka Securities Exchange Plc established in 1996 to provide centralised depository, clearing and settlement services for Zambia's equity and bond market.

The LuSE CSD infrastructure is an Automated Trading and Depository Systems developed by Millennium IT that complies with G-30 recommendations.

The depository is partly owned by the LuSE registered brokers and by sub-custodian banks Stanbic Bank Zambia Limited and Standard Chartered Bank Zambia Securities Services Nominees Limited, who are the only two banks offering sub-custody services in this market.

Chenge Mwenechanya, Head of Investor Services at Stanbic Bank Zambia Limited, said: "Following the changes in the SEC Act of 2016, the focus from the Securities and Exchange Commission (SEC) is on formulating a road map for the development of the capital market ten-year plan which is set to be finalized in 2020. In line with the standardization of the act, the de-merger of the Lusaka Stock Exchange (LuSE) CSD and LuSE has been suspended indefinitely due to misalignment in the separate running of the LuSE CSD."

Mwenechanya added: "The Zambian market continues to face challenges of low liquidity owing to excessive capital chasing few investable assets available on LuSE. The market is predominantly in the hands of local pension funds and institutions that are typically long-term focused. The LuSE continues to encourage new listings on the market and have introduced an aggressive market outreach program on benefits of raising capital on the exchange and investing on the exchange."

ZIMBABWE

Takunda Magumise, head of investor services Stanbic Bank acknowledges that developments in the Zimbabwean market have been overshadowed by political and economic constraints.

The Securities and Exchange Commission of Zimbabwe (SECZ) published the Securities Amendment Bill, 2019 in 2018 but it remains with the Attorney General while there are further market consultations. The bill outlines the proposed revisions to the Securities and Exchange Act with the aim of enhancing compliance with the requirements of IOSCO and aims to increase the powers and the effectiveness of the SECZ, as well as to provide better protection to investors.

In February 2019, the Reserve Bank of Zimbabwe (RBZ) announced the immediate use of local currency, the RTGS Dollar, which was adopted by the Zimbabwe Stock Exchange (ZSE) as its trading currency. Additional measures included restricting the trading on dual-listed shares. In a later development the Ministry of Finance suspended the fungibility of Old Mutual, PPC and Seedco for a period of 12 months until 12 March 2021.

In March 2020 the RBZ introduced a managed floating exchange rate system through an electronic forex trading platform based on the Reuters system. This platform allows foreign exchange to be traded freely among the banks and permits a true market exchange rate to be determined. ■

> Developments in the Zimbabwean market have been overshadowed by political and economic constraints.

European Beneficial Owners Roundtable

On July 2, 2020, experts from the beneficial owner, agent lender and data provider community gathered to discuss some of the key issues influencing the European securities lending market. Here, we present some of the highlights from the roundtable discussion.

CHAIR: What key trends have shaped the European securities lending market in 2020?

DIMITRI ARLANDO: Looking at the beneficial owner breakdown in terms of the average lendable balances in 2020, collective investment vehicles accounted for 44% of the total lendable assets. Pension plans and government entities also contributed significantly to the lendable. However, when you look at the breakdown of loan balances you can see that collective investment vehicles account for only 22% of the actual amount on loan, with pension plans (34%) and government entities (29%) having more on loan in 2020. That's not surprising because collective investment schemes tend to operate under much more conservative guidelines so you would expect to see this.

If we look at revenue now, global revenue is down 14% in the first half of 2020 compared to the first half of 2019, $3.89 billion is the total revenue so far this year. It's important to highlight that this figure is based on loans from lenders to brokers and doesn't include any revenue from broker to broker loans. This is a truer reflection of the actual value that beneficial owners are getting from securities lending.

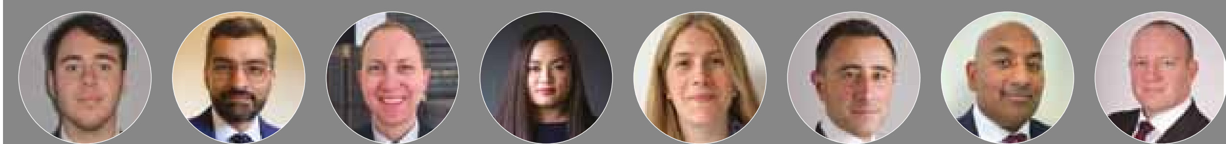
In EMEA, revenue came in at $960 million, 33% lower than the same period in 2019. This was mainly driven by the impact of COVID-19 where we've seen declining market valuations, short-selling bans, dividend postponements and cancellations all contributing to that lower revenue number.

If we move on to look at the EMEA equity fees, you can see that this year on 25 March EMEA equities averaged 44 basis points, that was the lowest value at any point in the last three years. In calculating this, we remove the seasonal specials activity so we can better understand the impact of the current market conditions. From that low point in March fees have steadily risen, and that's because of the temporary short-selling bans not being renewed and some COVID-related specials also coming into play over the last couple of months, but year-on-year clearly 2020 has seen less specials activity and lower fees compared to the same period in 2019.

Looking at EMEA fixed income, the fees are a lot lower than the equity market but again we've seen a rise in fees from March of this year, not surprising because the demand for high-quality liquid assets in times of market stress is always going to be higher and fees have increased as a result.

If we break the revenue numbers down further and look at the contribution from each of the different rate bands, looking at equities in EMEA first, both in 2019 and 2020, specials activity has been the largest contributor to rev-

PARTICIPANTS



- **Chair: Oliver Wade,** Securities Finance Editor, Global Investor Group
- **Fuad Ahmed,** Head of Derivatives Risk and Securities Lending, Phoenix Group
- **Matthew Chessum,** Investment Director, Aberdeen Standard Investments
- **Dongyi Yin,** Collateral & Securities Lending Manager, MN
- **Cathrine Poulton,** Managing Director, Head of Client Management EMEA, Securities Finance, State Street
- **Nick Davis,** Executive Director of Agency Securities Lending, JP Morgan
- **Dimitri Arlando,** DataLend Team Lead for EMEA, DataLend
- **Stephen Kiely,** International Head of Sales & Relationship Management, Securities Finance, BNY Mellon

enue, in fact for both years over 40% of total revenue has come from trades with fees of over 500 basis points. If we look at fixed income, it's almost the reverse where most of the activity comes from the GC market. Most activity is below 25 basis points, again not surprising given the way that the fixed income market trades.

Looking a little bit deeper at the top five securities for EMEA this year, Wirecard dominates, but then we also see some of the COVID related specials. Obviously the transport industry has struggled in recent months, so we can see that airlines, and in this case Lufthansa specifically, experiencing high demand. With oil prices being so low it's not a surprise to see Total also experiencing high demand in the lending market.

Looking at Wirecard in a little bit more detail, there's been a lot of interest in this particular security even before this year. You can see the utilisation through the early part of 2019 was high and then dropped as the year progressed. However, from October 2019 utilisation levels have risen dramatically again, and in more recent weeks fees have started to spike as well. This is a result of the company going into administration due to alleged fraudulent accounting, which has meant that short interest in the security has been high. Short sellers tend to get a lot of bad press, however in this case perhaps they should just get some praise for helping to unearth the wrongdoings at Wirecard. This might be a factor that ESG investors may want to take into account in the future, as in this case short selling Wirecard certainly does fall into the governance pillar for ESG.

CHAIR: Nick, do you want to talk to us about what you've seen from an agent lender perspective?

NICK DAVIS: From a European markets perspective, it's been a split journey. At the start of the year, the hedge fund environment remained challenged, we saw continued outflows which impacted spreads, and this was followed by a slowdown in short activity and specials. When COVID 19 gathered pace in late January it fuelled a market sell-off globally. As the volatility increased we saw temporary short selling bans across EMEA and APAC, company dividends were either omitted or postponed. Some companies replaced their cash dividends with scrips, which helped fuel demand.

"If we look at fixed income, it's almost the reverse where most of the activity comes from the GC market. Most activity is below 25 basis points, again not surprising given the way that the fixed income market trades."

Dimitri Arlando, DataLend

March saw a divergence in Hedge Fund activity. Quant Funds were deleveraging due to market volatility, while Global Macro Funds fared better and that's where we have seen the increase in balances. Specials started to increase in specific sectors such as Airlines and Travel. As we moved into the second quarter, short selling restrictions were lifted across EMEA and APAC for the majority of markets.

Finally, Fixed Income saw an increased demand in US Treasuries due to Money Market Fund demand and overall dislocations due to volatility and increased specials in Emerging Markets, Sovereigns and the corporate space.

CHAIR: Dongyi, can you give us some insight from a beneficial owner perspective on how you've been tackling this pandemic?

DONGYI YIN: As Dimitri mentioned earlier, the lending revenues have dropped during the COVID crisis; we can say that short selling bans have also intensified the downwards impact on lending revenues. However, in our case we have a lot of exclusive agreements with our borrowers on a yearly basis so we have some protection from the COVID crisis, but it also takes the upside of the market volatility. In the end we have chosen exclusive agreements since we want to have guaranteed revenues for our clients, and that has protected us quite well from this crisis. In the end we can see recovery in the market, and we also see it in our lending revenues. We see that the market volatility in our portfolios is becoming a bit less, and we also see that since the short selling bans were lifted that it has some positive impact on our equity portfolios.

NICK DAVIS: Just to add, from an Agent Lender and Beneficial Owner perspective, the main focus from both parties were risk; Operational, settlement and collateral. Clients wanted assurance that there was no collateral exposure during this period of volatility, and that the settlement rate remained high to reduce any fails despite the increase in volume that Agent Lenders were experiencing. This was a priority for J.P Morgan and managed accordingly to ensure that the program ran without issue.

Technology remains a focus, and because of the continued investment over the years, J.P Morgan's Agent Lending & Collateral Management platform allowed us to service our clients through this period of extreme volatility, that we, and the rest of the market were experiencing. As the market started to normalise and the level of risk to some extent subsided, the desk and client teams

focused on alpha generation such as collateral expansion, term and the alternative finance space to help clients who were either long or short cash.

MATTHEW CHESSUM: I think that's one of the big positives that anybody can take from this recent crisis, it appears that the mind set of beneficial owners remained vastly unchanged. During previous crises there has been beneficial owner movement, whether they've pulled out the market completely, whether they've sat on the side-lines and waited or whether they changed their guidelines. Most beneficial owners are probably more experienced now in comparison to before; they're likely to have stronger controls in place and I think that many would argue that nothing much really changed for them. The only real topics of conversations regarding the recent COVID volatility was that the indemnity still holds value as it still provides a level of comfort and whether margin calls need to be done more frequently. Both the possibility of this and whether the market needs to move to more intraday pricing of both collateral and on loan positions remains an active conversation.

I believe that the industry's proved itself to be very robust. If you look at securities finance in general, it fared a lot better than the repo market, and I think that's because we've learnt our lessons from the past. There's more protection in place, along with more robust procedures. The level of risk mitigation that is in place surrounding any securities lending transaction in comparison to many other market instruments was noticeable. I think that we were very well prepared.

It was a different type of crisis as well – it wasn't a credit crisis – there wasn't any fear about any participants going bankrupt and the associated contagion, which is probably one of the main drivers for a lot of beneficial owners pulling back previously. Here, it was more about ensuring that market sales completed in a timely manner and that both recalls and collateral settled on time. It proves the robustness of the procedural operations that everybody now has in place, whether that's agent lenders, whether it's on the broker dealer side or whether it's indeed on the beneficial owner's side, along with the improvements in programme oversight that all of the above continued to function well throughout.

"I believe that the industry's proved itself to be very robust. If you look at securities finance in general, it fared a lot better than the repo market, and I think that's because we've learnt our lessons from the past."

Matthew Chessum, Aberdeen Standard Investments

DONGYI YIN: That's indeed true that as beneficial owners we have more confidence in our agent lenders than 12 years ago. We know that our agent lenders are healthy with a strong balance sheet, and we have very clear communication and we can have very clear conversations, honest conversations, so we know that we can tackle the whole crisis together.

STEVE KIELY: I just want to pick up on something Matt said, comparing the current conditions to the financial crisis of 12-13 years ago. This is different and whatever your view on the last crisis, whatever your political colour, etc., people generally accept there were issues within financial systems. Currently, the financial systems are reacting to external stimulus and I think, as we've heard from the beneficial owners so far, there's a lot more confidence in the agent lenders and the market in general.

CHAIR: Steve, as agent lenders, what have you been doing to maintain and uphold those relationships with beneficial owners?

STEVE KIELY: The level of communication we've had with clients has been greater in the last four months than it has been in the last four years; because of the volatility we've had to have that extra communication and it's influenced by the fact that nearly everyone's working from home. I think for existing clients, the relationship has gotten deeper. As was mentioned just now, I think there's even more trust between beneficial owners and their agent lenders than there was four or five months ago. You've got to look for the positives, and I think that is one of the real positives to come out of this.

CATHRINE POULTON: We're very much seeing the same, the engagement with our clients throughout the crisis has been fantastic, we've had extensive feedback from them, extensive meetings with them, lots of information flow. What's stuck for me throughout the crisis is that they are very confident with the programme despite seeing this level of volatility, the markets have been relatively stable, we've been able to deliver on what we needed to deliver, we've managed in a risk averse manner. I think as well, taking it more to the human dynamic, a lot of those relationships we have with our beneficial owners have become much more humanised – we're on video calls with them in their home with their families and I think that has really added value to our beneficial owner relationships. I think there are definite positives that are coming out of us almost having to go into this crisis scenario. I think underlying all of that what's very clear to everyone is the most important thing is that everyone is safe and healthy.

DIMITRI ARLANDO: Just to add from a data perspective, I think that's really helped both sides – beneficial owners and agent lenders. We've certainly seen a thirst for data over the last few months. We release daily market updates, and the feedback from that has been extremely positive and appreciative as well, but more so the requests for different cuts of the data that we're getting from both beneficial owners and agent lenders has increased significantly.

Interestingly, some of the beneficial owner community have come to us and asked to see different types of screens than they would normally look at, and I'm talking about the screens that we typically see trading desks using. To me that says the beneficial owner community are really engaged in their programmes, and want to really understand the drivers behind the performance in the current environment.

FUAD AHMED: One of the big drivers is an increased interest from senior management, where six months ago perhaps they weren't so interested in securities lending, but I think given recent events there's been a lot of focus around collateral exposures, counterparty exposures and the like and making sure that we're on top of it and able to communicate upwards quite clearly what that risk profile looks like.

STEVE KIELY: Catherine, to your point you made earlier on, I've got no empirical evidence – it's just anecdotal – but I think there has been a far greater willingness to pick up the phone and speak to people than just send emails since we've all been at home and since we've all been in this environment. Amen to that, long may that continue.

MATTHEW CHESSUM: This all comes down to engagement and that's one of the good things that came out of the last financial crisis, participants are more engaged, beneficial owners are more engaged, as well as, I dare to say, agent lenders are now more engaged with their beneficial owners as well. This enhanced level of engagement will help to develop market activity going into the rest of the year. It takes longer to put risk on than it does to take risk off, which is why revenues might fall within the next few months. Moving forward however there is likely to be more corporate activity, it's true that there may be fewer dividends but there will most likely also be more rights issues and more mergers and acquisitions opportunities. All of those are likely to create chances for beneficial owners in the second half of the year to add important incremental returns to their underlying investors.

NICK DAVIS: Collateral and settlement risk remain a key factor, with the majority of agent lenders having operational and trading platforms across the globe, with many working from home, and with settlement volumes up 100%, hearing the rest of the panel, I agree that it is a real testament of how the Securities Lending business has managed through this period.

DONGYI YIN: I also agree with deeper relationships between agent lenders and the beneficial owners. I don't think that applies to all agent lenders, because in times of crisis it's an opportunity for agent lenders to prove their abilities, and if an agent lender really supports the beneficial owners to control their risk and to keep their programme ongoing, we are gaining more trust, and we can also justify towards our senior managers or our board we have a really good agent lender who can also keep our programme ongoing during the crisis.

We are also getting questions from our clients, especially during the crisis or equivalent situation. We want to make sure that our clients will be fully, timely and correctly informed. The first thing I am going to do is call my agent lenders to make sure that we have all relevant information for comprehensive responses. If the agent lender is supporting us, as a real agent lender has to, then we are gaining more trust in them, we are having more confidence and we are building our relationship to a higher level.

STEVE KIELY: But that's a psychological phenomenon, adversity bonds people like success never can. I wouldn't profess to go into it any more than that, but it's a fact, adversity bonds people.

> It has been a lot easier to have conversations at a senior level. I think that's helped with this kind of crisis; I don't know if we would have been able to do that if we were back in the office for example.

Fuad Ahmed, Phoenix Group

FUAD AHMED: I also think what has been helpful in the virtual environment is being able to bring my boss into the room for a half-hour catch up with the agent lender. Whereas, in the past, it would have been quite difficult to get time in his diary, get people in the right place, etc., it has been a lot easier to have conversations at a senior level. I think that's helped with this kind of crisis; I don't know if we would have been able to do that if we were back in the office for example.

CATHRINE POULTON: I think we really are in business-as-usual (BAU) again now, even though we have everyone working remotely, we are truly BAU; we're functioning as if we were in the office in the old days, and I'm not sure that we will return to what used to be the norm.

I think there were two things that came out of Covid that have rung true for many years, and that presents opportunities for some of our beneficial owners if they are comfortable with their programmes or if the regulations allow. One of those is obviously around term – term trades remain in demand – and the other is around collateral. For those clients that have expansive collateral sets and have flexibility within them, throughout the crisis we have managed to get them into profitable trades. JGBs would be one that I would name, there has been some volatility around the basis there, for those clients that allow it we've managed to make some revenue for them by placing them into those trades.

So, I think for me there are two things – term and collateral – that we always talk to our beneficial owners around, and we always talk about the importance of the flexibility, but I think when markets are in turmoil or volatility and our brokers are demanding different types of trades from us, the more flexible you can be and the more trust you have in your agent lender to manage those exposures, obviously the most we can get from your portfolio.

FUAD AHMED: We are already in the term lending space, and with equity collateral as well. I think what has been helpful through the crisis has been flexibility on both sides. We've had to rebalance several portfolios given market movement, so that's involved recalling some of those term lines and being creative and finding solutions for those relationships in order to be able to manage those positions.

CHAIR: Does this culture have longevity?

FUAD AHMED: I think things are getting back to normal, and we are constantly looking for new opportunities. Just because we are not in the office, does not mean things have to pause on that side. Things have settled down a little bit in the market, so we are happy to look at new opportunities.

STEVE KIELY: I am slightly concerned with one thing, and that is if I take my relationship management hat off where, as I have said, those relationships have deepened, and then I put a sales hat on, I think this virtual world makes forming new relationships more difficult. It is not impossible but I think it is more difficult. So, whilst we're okay for now, if, worst case scenario, there are further lockdowns across the world, there are second or third waves of the Coronavirus and we're having this same discussion this way in a year's time, things might be a bit different.

CHAIR: We have witnessed a tremendous push towards peer-to-peer lending from various beneficial owners in the Americas, and they have recently formed a new association, which they are hoping to grow globally. Could a similar model be applied in Europe?

CATHRINE POULTON: I think peer-to-peer will be increasingly used in the next few years. Ultimately, peer-to-peer is around additional distribution away from the traditional banks and broker dealers that agent lenders have typically used. I think there's a particularly interesting ESG angle to peer-to-peer, as we'll go on to talk around ESG, one of the factors is around beneficial owners wanting to understand what their securities are being used for and potentially who's borrowing them. One solution to that is to enter a peer-to-peer platform – you know where your securities are going, you know who's borrowing them, and you effectively know what their ESG stance is. We deal with some large hedge fund clients within our Enhanced Custody business and our Direct Access Lending product links our Enhanced Custody product with our Agency Lending product, and some of those clients are very ESG conscious.

I think the reason why peer-to-peer hasn't exploded is because of the infrastructure. If you don't have those pipes already in-house, I think it's very challenging for firms to stand up a platform that is efficient and effective. Ultimately, our hedge fund clients don't want to take on additional operational duties, they want to deal with us in the same way that they always deal with us and hence we offer a managed platform for them. They are the challenges around peer-to-peer, but I do think in terms of distribution, in terms of financial resource management, in terms of ESG, I think that they're great products. If people are comfortable with the risk appetite, again from a beneficial owner perspective, certainly within the State Street Direct Access Lending programme, our indemnity still stands, so from a beneficial owner perspective it's additional distribution still with a highly-rated indemnity stood behind it.

MATTHEW CHESSUM: I think it's always quite peculiar, when you look at asset managers in general, some have funds of funds and they manage and look at the credit quality of the underlying hedge funds for this business. However, when you ask them to look at peer-to-peer transactions through a securities lending lens they seem to find that very difficult to quantify as it seems to be a different computer system with a different risk modeller and everything else. It still seems to be quite a different world and the two haven't really collided as yet.

The second point that I would make about the organisation in the US, is that these pension funds involved are of meaningful size, and the number of individual funds of similar critical mass are far fewer in Europe. I would therefore predict that the membership of that group in Europe will be less sought after. I can completely understand why those participants have connected because if you look at the costs involved and the infrastructure required, it's worth their while to engage in peer-to-peer activity to save costs. In Europe as beneficial owners tend to be smaller, I think that the trade specific infrastructure through an agent or bank needs to be put in front of us for us to be able to engage fully, and we also need a bit more hand-holding.

STEVE KIELY: There are some big North American pension funds that are borrowers in a number of agent lender programmes, which you don't really see outside of that area, so I absolutely agree with Matt there.

I think the peer-to-peer platforms that emerged a couple of years ago were trying to solve an issue, which was liquidity driven, where broker dealers were constrained, and there was an attempt to unlock that by almost disintermediating them and going peer-to-peer; that's largely gone away now. Issues arising from the current situation are driven by volatility as opposed to credit or liquidity, but I still think there's that hurdle to get over of the credit intermediation that is provided by the BNY Mellon or the State Street or the JP Morgan indemnification. I still think in Europe peers may be nervous of the risk of other peers, but I'll be corrected by our beneficial owners.

FUAD AHMED: We have a very high bar to get something like this over the line, predominantly driven by regulatory requirements but also our own risk appetite. Generally, we take a very conservative approach and we wouldn't really go into securities lending arrangements where we're reliant on the indemnity. Our approach is very much to structure it so that the counterparty risk we're comfortable with, the collateral exposure we're going to be comfortable with, and the indemnity is there as a sort of backstop.

What kind of peer are we talking about? If it's a hedge fund then that's probably not likely to be approved by the board. If we can get over some of those hurdles there might be scope

"If we are going to do peer-to-peer, I don't believe that we are going to move our whole programme to peer-to-peer, however, it provides another option in an ever-evolving industry."

Dongyi Yin, MN

there to do something. Are the returns worth it? That's the other side of the equation, so it all has to be weighed up in that way to decide if it's worth prioritising.

DONGYI YIN: To be honest, I think there might be some opportunities for peer-to-peer, because in our case we are a pension fund and we are quite safe, and other pension funds have the same risk model, so I don't really see a big counterparty risk if we are having peer-to-peer with other pension funds. However, we have to analyse the risk even when we have the same risk profiles, which is quite low. Most of our peers don't have any credit rating, so that is something that we have to review and also have to discuss with our risk department.

If we are going to do peer-to-peer, I don't believe that we are going to move our whole programme to peer-to-peer, however, it provides another option in an ever-evolving industry. I think that some of my colleagues are looking to the peer-to-peer part because it sounds quite interesting, and if we are looking at the fees, we are directly lending to our end users. This means we don't have a borrower who is lending to our end user, so in the end we have a fee that we don't have to share with a lot of other participants.

NICK DAVIS: As a business, we continue to develop and expand peer-to-peer through our Agency Prime model. In parallel with the peer-to-peer expansion we have also been focusing in the Alternative Financing space, and exploring liquidity solutions for our clients.

STEVE KIELY: My view would be, if it is going to gain traction the way that CCP gained traction then it's more likely to be a platform which is backed by a big organisation, because what they can offer there is peer-to-peer and also do some of the heavy lifting, the operational work, etc., so that can be outsourced to an extent. But, as I said before, I think the credit and risk intermediation is still a hurdle that we haven't properly got over to really move forward with this at speed.

MATTHEW CHESSUM: I would predict that this will probably come in stages. Beneficial owners would look at whether it was a possible source of either liquidity or counterparty diversification and what the associated risk requirements were. Additional repo counterparties, to take emphasis away from having 100% banks or additional cheaper and or stable sources of liquidity seem to be the main drivers for this activity. After this, I see securities lending as a secondary step where we're comfortable with the transactions that we're doing elsewhere within the organisation that actually bring us some strong tangible benefits, where we're now comfortable with any 'new' sources of risk so we are therefore comfortable entering it into the securities lending arena as well.

STEVE KIELY: It could be seasonal. It could be something where, the extra distribution at quarter end/year end comes into play a bit more to open up that extra channel, or it could be that beneficial owners will say, 'When I want to earn money, where it's an alpha driver, I'm going to lend through my agent, but where I want to do collateral transformation per se then maybe I'll try that peer-to-peer.'

CATHRINE POULTON: I think different trades fit different structures, and I think ultimately with peer-to-peer you're probably looking at volume-based GC. If you're looking at specials trades, you want those to be handheld and you want your value maximised effectively, and effectively that's what you're using an agent for, so I think there is a time and a place for peer-to-peer. I think the only thing I would add around our peer-to-peer solutions are they are margined differently to typical agency business, so depending on who the counterparty is, the collateral margins and collateral itself, and obviously the way that we take that is aligned to the peer-to-peer structure, so that does work slightly differently to an agency programme.

CHAIR: Is ESG compatible with securities lending?

MATTHEW CHESSUM: Yes, and absolutely this is what we set out to prove from the outset to be honest. There were many concerns circulating in different/various regions of the world saying that securities lending was not fully aligned with any kind of ESG strategy, but all of the beneficial owners that I spoke to were firmly in disagreement with that statement. That is how the ICSF came about; a number of beneficial owners came together and decided to create the principles for sustainable securities lending under the leadership of Radek Stech, who's a senior law professor at the University of Exeter; he does a lot of work with sustainable finance and he was prepared to drive this project forward. So, after going through the process of forming these principles that we believed were the main areas of any ESG concerns in regards to lending securities, we came together and we published those principles, and then we formed the Council for Sustainable Finance to implement those principles within the market.

What the Council has achieved so far I think is already quite powerful. We put those together 12 months ago, and to remain aligned with ESG developments the principles will continue to be updated. The conversation around ESG is very fluid and it's a conversation that's forever progressing. Everybody has a slightly different view on ESG; whether we all arrive at the same point or of the same opinion at some point in the future, I very much doubt it. I think it's a very personal viewpoint within every organisation, I think every organisation views it slightly differently and puts the different amounts of emphasis on either the E, the S or the G.

The Council has done a lot of work in regards to the G, the governance part of securities lending. What we're looking to do in the near future is to add to that and look at the E and the S as well. Diversity and inclusion is obviously something that's missing from the principles at this point in time and that's something that will be addressed following the partnership with the London chapter of Women in Securities Finance.

CHAIR: Dimitri, what have you witnessed at DataLend?

DIMITRI ARLANDO: I think from a data perspective around ESG it's a difficult one in terms of performance measurement because actually there are so many different elements of ESG it's difficult to get a consistent framework in place. That's why the work that Matt's doing with ICSF, who we have partnered with as well, is vital. Without that consistency and a framework in place it is difficult to measure performance from a data perspective.

The important thing though is that it would appear clients with an ESG wrapper are in fact continuing to lend.

From a data perspective, we can help beneficial owners who want to see how they are performing against a universe of other clients or the industry in general. We can also help identify the true cost, in securities lending terms, of ESG, which I think is important because that then allows you to say, at a very high level, 'If I weren't an ESG investor maybe I would have earned X, but I'm okay with that because I have decided that ESG is more important to me than the additional revenue.'

DONGYI YIN: For us ESG awareness is becoming more relevant, and I think overall it's becoming more important for the beneficial owners. We want to get more engaged in impact investing. We have created some ESG customised benchmarks for our portfolios, because we believe that we have to engage more with ESG-proof securities and parties, and this leads to a natural flow into the market of more ESG-proof securities in the lending markets.

We really want to support industry-wide methods of how we should do securities lending in an ESG-friendly way. Not long ago we became a member of ICSF. Also, internally we have some ESG policies, so we have an ESG team and they have an engagement list, those were the names which we actively engage with, so we are also actively voting for it; those shares are not going to be lent until the voting period is over. Those are all ways our programme protects ESG as much as possible.

NICK DAVIS: It's going to be challenging both from a trading and collateral perspective. For trading, you're going to have clients who want to vote therefore you need to make sure you have the platforms readily available to support that. From a collateral perspective, you can't just create an ESG schedule and say, 'this is going to be the standard ESG schedule across the lending businesses'. That strategy is not going to work as client's will have a different ESG scoring to each other, and in the current environment this would mean separate collateral schedules. A possible solution would be for the Tri-Party agent to take in the collateral at the parent level and then split it out to make sure it meets the client's ESG parameters.

In my view, I think there is continued work to be done from an Agent Lending perspective. Of course, it can be supported right now, but technology will play an important part in supporting ESG. ESG continues to gather pace and not just in Europe, we have clients globally asking about supporting our ESG functionality.

STEVE KIELY: I think ultimately the G of ESG, which mainly affects the securities on loan, and as an industry, we have seen greater automation around proxy voting and recalling shares for that purpose. The E and the S is more difficult to manage, pertaining to collateral, and I think ultimately this will be something that the big tri-party collateral agents are going to have to solve. As Nick said, it's not easy because clients are interested in or impacted by different things, be it alcohol stocks, tech and aviation stocks that have defence contracts, tobacco, oil, all sorts of things, so it really is diverse. I can't remember who said it earlier, or they hinted at this, but everything's doable. It's doable, but it costs; do you want to pay the price, yes or no? Potentially it's a price that everyone consents to pay and is worth doing, but it's not going to happen for free, there will be lost opportunity costs as a result.

> "From a collateral perspective, you can't just create an ESG schedule and say, 'this is going to be the standard ESG schedule across the lending businesses'."
>
> **Nick Davis,** JP Morgan

FUAD AHMED: Yes, that's the question for us, with respect to collateral sets I think the first question is should we be filtering out certain assets because we don't invest in them from an ESG perspective? The second question is what is the impact of doing that? Will it actually impact the lending programme in a dramatic way?

Just to wind back, I'd like to also just reiterate that Phoenix is supportive of the ICSF, I think it's a real positive to have a set of principles which we could all aspire to and work towards. In terms of our programme, I would say that investment management comes first, so from an ESG and responsible investing point of view that's the way in, securities lending has to be consistent with that, so issues around tax or the correct tax treatment and voting, that's never been an issue for us, it's always been our policy to make sure we're doing the right thing for our policy holders so that they're paying the right tax rates, etc. and getting the right level of return.

CATHRINE POULTON: To your original question Oliver, is ESG compatible with securities lending? Absolutely. We very much welcome the work of the ICSF and the Principles for Sustainable Securities Lending. I think that will very much help both from an agent lender standpoint - be able to facilitate our beneficial owners complying with those principles. I think as well, we're trying to enable our beneficial owners with answers to questions they may have. For example, are short sellers negatively impacting my long portfolio value or my long-term investment strategy? We've tried to take an academic approach to that, and we've worked with our State Street Associates arm to launch some research papers around that, that have established some empirical evidence around short selling effectively not having a detrimental impact on long-term value. For our beneficial owners to be able to see and to understand really that there is now proven evidence that it doesn't impact the underlying portfolio value in the long term.

I think from the ESG angle, there's a lot of discussion around whether we should be supporting short sellers. We've seen what's happened in Wirecard, the short sellers identified potential issues a while ago, they identified that something was not quite right there around the governance of that company. I think there is a lot of traction building and a lot of conversation around, not whether we should stop short selling, but whether we should encourage it, because that is how investors can take a view on ESG-compliant companies. I think that's a very interesting angle that we're seeing, there has always been this historical challenge around short selling but now we enter the ESG world again and we are looking for empirical arm's-length evidence and research to substantiate those points, and I do think that from an ESG standpoint, investors should take short positions on companies to show their intent and what they believe is happening there.

MATTHEW CHESSUM: It's opinions that make market prices, whether that's positive or negative, that's what forms the pricing points and that's why it's important.

CHAIR: How is demand going to change once SFTR is live?

CATHRINE POULTON: What's very important is we are live in some aspects and we're due to go live with a lot of our beneficial owners very shortly. From where I sit everything is in hand, I'm not worried.

What is interesting is what will happen once that SFTR data is out there and once our prime brokers or our end users can start to analyse that data. The interesting dynamic here is, and this probably links back to Dimitri's original slide around the lendable assets in certain client categories versus the on-loan balances, that SFTR may make those statistics even more staggering. When we start to look at SFTR and we see that data coming in same day, we see our borrowers being able to identify who they want to borrow from in terms of their LEI's, their RWA weightings and their domiciles, it gives them a lot more data upfront to be able to manage their risk positions, to manage their financial resources and to ultimately decide who they want to borrow from.

Now, the regulations don't allow for some of our clients to be as competitive as others, but I think SFTR will start to bring a lot more of those discussions to the fold around who are good clients, for want of a better word, and who are the more challenging clients? Ultimately, where is the demand going to go?

MATTHEW CHESSUM: I want to know whether we're going to see all of the data, I want to know whether we're going to see the rates that banks are lending to hedge funds to and the rates that beneficial owners are lending through their agent lenders. If we see the other side of the coin then that would make for an interesting conversation. If that means that beneficial owners get better pricing, then that's a good thing, but if we could see the differential between the two, then I think we're going to be in a more powerful position than we've ever been in.

The other point I would make is, SFTR has been live for many beneficial owners for many months now and in the back of every annual and semi annual report for a UCITS fund there's a table that will tell you the top ten borrowers, the top ten stocks on loan, the top ten pieces of collateral, which has been designed to add further transparency.

The last point I would make is that if this brings us out of the shadows, if you like, and into the clear light of day from a regulatory perspective, then it can only be positive. I think going forward, from an industry point of view, getting over that last hurdle of implementation and getting that data out there and into the mega-frames of the regulators helps the reputation of the market as a whole.

STEVE KIELY: I think Matt's right on that – any level of transparency is generally a force for good. I think the industry needed to do this, we needed to show that we could do it and we would do it, and I think that will have positive repercussions. I think the pricing that Matt talks about is interesting and that could lead to some positive outcomes. My only concern, and it's something that's already happened, is that there are a number of smaller agent lenders and a number of self-lenders that pulled out the market because they just found SFTR too difficult to implement, and I think that's a bit of a shame in that it's concentrated more of the market traffic through the larger players. You'd probably not expect me to say that as one of the larger players, but I just think from a competitive perspective it's a negative.

CHAIR: How can we leverage technology to streamline and improve securities lending?

DIMITRI ARLANDO: Everybody here seems to be in agreement that we're at BAU. Looking back to March and the start of lockdown period, where a lot of us were shifted from office environments to working from home, we actually saw record levels of activity on our trading platform, NGT. We actually had a one-day record in March where $170 billion of notional was executed on the platform. I think that just goes to show that people had to rely on technology during this time of disruption and because it was so robust, they had confidence and continued to trade. That shift to electronic trading isn't new, NGT has been in existence for a number of years now and there has been a steady increase of activity on the platform but the peak was interesting.

Aside from trading, from our perspective there's been a lot of interest in data coming directly onto clients' trading screens as well. We've had a lot of demand for our API and file transfers specifically so that clients can allow traders to see data instantly on their front-end screens when they're making trading decisions; that's been increasing a trend.

At EquiLend, we also understand that artificial intelligence and machine learning are going to play a really big part in how we run our businesses in the future. Our data science team has done a lot of work in the post-trade environment and created a beta product for post-trade, but we're also now speaking to our clients to see how our data can be incorporated into their own machine learning and artificial intelligence initiatives.

> "We're moving away from traditional trading to more algorithmic, smart trading effectively to get the most value from those portfolios."
>
> **Cathrine Poulton,** State Street

DONGYI YIN: Overall, we see that artificial intelligence and automation are currently the keywords in improving operations. Especially in the securities finance world we see more usage of artificial intelligence in the front office, at the trading desk, and also at the agent lenders we see some development of using more artificial intelligence so they can focus more on revenue maximising opportunities like specials, and then they can just use the algorithm for their GC. We also see a lot of automation, and that's more in the mid and back office parts in the securities finance world, and that has more to do with making the processes more efficient, integrated, and they are purchasing new systems to make it more flexible, and in the end we have the result that all the processes are more efficient and less time consuming. So, in the end we see the development at the buy-side part but also at the sell-side, so I think that the combination is very good for having more efficient lifecycle.

FUAD AHMED: Fundamentally, all I care about is returns on the programme, so if technology could be utilised in a way to boost the returns and do that in a better, controlled way which reduces operational risks as well, then that's great, we're all for that.

STEVE KIELY: We've now got fewer than 30 traders worldwide and we're doing up to 10,000 trades a day. We couldn't do it without technology, and we couldn't do it without our front-end system. We're doing this today to an extent, but in future we will likely see even more automation so that traders will be looking at fewer and fewer trades and concentrating on the trades that require their input - it's absolutely the way forward.

CATHRINE POULTON: I think we've got two factors almost going on here - we've obviously got our front office developments where we are trying to maximise revenue for our beneficial owners, so really what we're looking at there is machine learning, artificial intelligence and predictive pricing. We've got teams of people within our trading teams, very similar to what Steve said, we're moving away from traditional trading to more algorithmic, smart trading effectively to get the most value from those portfolios, so that's the very interesting piece that's going on in our front end.

Then, away from that, we've always been very focused on operational efficiency, if we can do things faster and more efficiently that's exactly what we're going to do. I'll reiterate what Steve said as well, using platforms like NGT in our front office, using some of the platforms within our operations teams to make it more streamlined, all of those are very welcome and we consistently work on those. This is something that SFTR and CSDR is also helping with, so it's very much helping with the efficiencies, it's very much helping with operational smoothness, and I think that's really where we have to go. We have to make this a much more STP, for want of a better word, operation and market.

FUAD AHMED: Just a question on that in terms of the automation and the straight-through process, is it dependent on a degree of standardisation in terms of for example collateral sets or am I still able to have my own requirements based on my own risk appetite?

CATHRINE POULTON: The collateral sets are much more around how can you monetise your portfolio, so how can we get you into the best trades that we can that fit those criteria? I think your collateral sets are much more around maximising your revenue or not losing out on opportunities. When it comes to the operational environment it is a little bit around standardisation, but that standardisation is coming really from the demand side, and what are prime brokers looking for? They're looking for standardisation of

collateral schedules from our beneficial owners, it's not necessarily to do with our operational BAU function.

NICK DAVIS: JP Morgan have always invested in technology and will continue to do so. We and the other Agent Lenders have invested in automation as the business continues to work on efficiency.

Regulatory investment in CSDR and SFTR will continue. For example, here at J.P Morgan we can advise clients today what their CSDR penalty impact would be over a daily, quarterly or monthly basis, and how we can partner with them to reduce that number. However, for the rest of the year and into 2021 the focus will most certainly be around ESG and supporting this for our client base.

CHAIR: How sustainable is securities lending?

CATHRINE POULTON: I'll give you one green shoot: there is starting to be cap raising, and I think that will continue, and I think we will see a lot more activity there. My prediction, for want of a better word, is we'll start to see less seasonal activity as we have over the years, and I think Covid has almost exasperated that. Obviously, with a lot of companies cancelling AGMs, cancelling dividends, redistributing capital, etc. I think we'll see limited revenue coming through in that space, so what you will start to see is that they will become more specials-based portfolios. What does that mean for revenue streams? There was an interesting point from Dongyi around the exclusives, because I think what will happen is if the revenue streams become more specials-based, particularly in the equity space, that almost gives more volatility to the beneficial owners, you will start to see a lot more volatility in those revenue generations. It will be interesting to see what the beneficial owners think that looks like going forward in those portfolios, because I think it will become somewhat harder to predict as well and to estimate what those revenues will be.

"I'm an optimist about the market and I think there's lots to look forward to."

Stephen Kiely, BNY Mellon

MATTHEW CHESSUM: We can all take comfort that very few beneficial owners actually pulled out of lending over the last few months during the Covid crisis, and we can all take comfort that securities lending continued to function well throughout the major markets of the world. That fact alone gives a lot of comfort to beneficial owners, and more importantly to the regulators. The increase in volatility should normally translate into hedge funds employing different strategies. Continual quantitative easing lead to the constant inflation of asset prices over the last few years meaning many previously employed hedge fund strategies were either redundant or un-profitable to employ. The emergence of new strategies will translate into more diverse demand and hopefully higher fees and on-loan balances.

One of the questions surrounding CSDR and whether that's going to limit supply into the market until beneficial owners truly understand what the consequences of some of those buy-in risks are. As we've already touched on, SFTR, I'm hoping that's going to translate into more competitive pricing for the beneficial owners, and I think that the second half of the year it's going to look completely different to the first half of the year. As Cathrine says, with all the capital raisings, some of the mergers and acquisitions activity and therefore the increase in the number of specials that are going to present themselves I think it's going to be interesting, and I think the market's going to come back. I predict a strong second half of the year.

STEVE KIELY: I'm an optimist about the market and I think there's lots to look forward to. After the last big financial crisis, we used to talk about the return to a normal interest rate environment; well, we're 12 years on, it hasn't happened. It looks like it's not going to happen for quite some time, so maybe this is the normal interest rate environment. I think, and Matt alluded to this earlier on, that the environment combined with the need to earn some extra revenue from somewhere, is going to bring more participants into the lending market to try and make the assets sweat a bit more. I agree with what Catherine said about the equity space – in the fixed income space we've just gone through and will continue to go through, a period of big bond issuance by governments as they pay for lockdown effects, we're also going into a sustained period of QE which we thought had come to an end two years ago, so that's going to affect the supply and demand side of the fixed income world.

NICK DAVIS: I'm in agreement with my panellists as well, I think that the second half of the year is going to be more positive. Supply coming to market, which is a continuation of 2019, specials, we have already seen an increase in US IPOs with opportunities continuing for the rest of the year. In Europe and APAC we expect to see sector specific and funding opportunities.

Catherine makes a good point on RWA as that also focuses the demand back on to pledge collateral. Clients accepting pledge eliminates the RWA impact that they may be experiencing as Borrowers continue to look at the capital cost per trade. ■

Untrapped

Ed Corral, global head of collateral strategy at J.P. Morgan in New York tells GI/isf how the company's work with trapped assets is opening a valuable new collateral resource for tri-party lending transactions.

What are trapped assets?
A trapped asset is any asset that has value but is challenged in terms of tri-party financing: for example, it may be restricted or is not held at a traditional depositary. Examples of such assets include ETFs, master limited partnerships and restricted shares.

As a result, the asset will fall outside the traditional channels of clearing and settlement – effectively trapping it from use in a securities finance transaction. To free it we must develop a process to support its accessibility within our securities finance programme.

It's important to be able to utilize all assets to support overall market liquidity and help institutions generate incremental returns while also managing collateral to meet capital and other binding constraints.

We have been identifying asset types, which by virtue of their lack of transparency, location or lack of familiarity have not previously been available for use as collateral in tri-party lending transactions. Our work has focussed on improving access, pricing and transparency so that participants are more comfortable accepting them as collateral. We have concentrated on remediating whatever was lacking for those assets in the eyes of those who would be asked to hold them – whether that is ratings information, pricing information or other static data..

What is the size of the market for trapped assets?
As one example, the market for master limited partnerships was estimated to be around $235bn at the end of March 20201.

Lately we have been working on addressing issues specific to restricted shares where there is significant opportunity: one such program alone currently has $78.8b in outstanding market value.

These can be tough assets to price – we are not talking about shares of a S&P 500 company here. The result is that these assets are either not being financed, or they are being financed through complicated synthetic products. The latter are hard for the holder to structure. In most case these synthetic structures focus on shifting the risk within a financial organisation: typically this will be moved from the dealer to the banking entity, where the excess financing is located.

By contrast, the ability to turn trapped assets into straightforward financing assets available for collateral management, as we have successfully done, brings a huge amount of capacity online.

Can you give a specific example of how trapped assets are released?
Certain restricted shares, such as those issued in preparation for a future event such as an IPO, are trapped because of their location. As a result, the shares don't settle at the DTCC like all other non-governmental securities in the US. Instead they are held at a transfer agent.

The value add for a tri-party agent is to gain access to the restricted shares at the transfer agent in an efficient manner, as additional holdings in these shares may be restricted to the institutions that already hold them. Given our leading positions in both banking, trading and custody, J.P. Morgan is often one of those institutions. By utilizing our integrated agency collateral management and

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securities lending services, we are then able to facilitate the use of these assets in tri-party lending.

Until recently the only way to access these types of shares in a securities lending transaction was to create a synthetic route, including intercompany funding. Our process lets them be deployed more traditionally, and we are seeing strong interest from the broker-dealer community.

Why have ETFs been so frequently trapped in the past and how is that changing?

ETFs are now beginning to make their way in some limited capacity into tri-party financing transactions. In the cases of the major names, such as SPY (the SPDR S&P 500 trust) and the Invesco QQQ (another a popular ETF that tracks the Nasdaq 100 index), lenders have now become comfortable taking them.

But as you go deeper into the asset class and the names become less familiar, lenders tend to become less comfortable.

The main reason for this is the lack of transparency. In order to be comfortable taking ETFs as collateral, lenders need to know what they comprise – which is to say they need to have transparency on the underlying assets. They need to avoid the situation of having to say to a regulator or an auditor 'we accepted the asset without really knowing what it was'.

How do you create this transparency?

Our work is focussed on providing lenders with enough static data for them to analyse the asset to their satisfaction.

J.P. Morgan is a huge consumer of data itself as a top trading house, asset and investment manager, custodian and collateral agent – through the leading providers such as IDC, Bloomberg and Reuters, as well as through the smaller boutique agencies. When we see enough demand in a trapped asset, we approach these pricing vendors to secure this key descriptive information, including the security's price, daily trading volumes and ratings. This coupled with our ability to leverage our Firm-wide capabilities in dealing with trapped assets places J.P. Morgan in a unique position to provide solutions in this space.

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Where a security does not settle at a traditional depository, our main job is to build a settlement pathway so it can be integrated into our tri-party programme.

Where the security settles with a transfer agent, many of the processes during the securities lifecycle, such as reconciliation, still include manual elements. To comply with our automated daily reconciliation requirement, we will need to build an independent electronic feed, and that can be harder than it sounds.

What specifically does J.P. Morgan bring to this space?

The traditional tri-party financing space is a mature one, which is well served and in which there are few opportunities for differentiation. We see a particular opportunity for J.P. Morgan to deliver incremental value in additional activities such as trapped assets because they play to our particular strengths, notably automation and optimisation.

We have leveraged these strengths elsewhere in the past. Solving market settlement and legal issues with Korean and Taiwanese equities in tri-party is a strong historic example. One prospective example is in the CCP space, where both firms and client clearing organisations have very large margin requirements and the process of retrieving and delivering collateral is often manual and poorly optimised. J.P. Morgan has begun to work with a CCP to develop a third party collateral agent solution to address these issues.

So the mobilisation of assets is a central pillar of what we do when it comes to securities finance. And these cases are no exception. For borrowers, or those operating in the agent lending space, providing the means to move assets that formerly proved hard to move has become a very valuable service.

Clearly delivering this level of transparency provides value to the borrower by providing access to an asset that was not previously available. But the lender also gains: it gets greater diversification and, potentially, a better price. Now that the asset can be financed, the borrower no longer needs to employ another high value asset, such as a gilt, that otherwise would be used in its place, freeing that asset for use elsewhere. This creates a financial benefit for which they may be prepared to pay. ■

[1] For MLPs, the estimate I got is $235bn (end of June 2020); this is in line with another source (as of Sep'19) showing $288bn and trending downwards
Source: Using MLP data, which is a website referenced by the MLP Association, an org referenced by the SEC for MLPs.

Traders reflect on negative crude prices

By **Wendy Lisney**

Lessons learned from the West Texas Intermediate (WTI) light sweet crude oil futures contract's move to negative pricing last month are now being applied to the European natural gas market, participants in a webinar hosted by the Futures Industry Association have said.

On the panel was CME Group's Derek Sammann, senior managing director, global head of commodities and options products, who said his firm and Intercontinental Exchange (ICE) are applying those lessons "right now".

"ICE as well as CME have put a number of product communications out there in terms of preparing for negative prices in European gas, and I think that's a great example of not just a lesson learned, but where those things have worked and were powerful," Sammann said.

Communication is absolutely critical, Sammann added. In the run-up to the WTI contract's negative pricing on April 20, the penultimate day of trading and expiration of the contract, CME Group sent out five communications to the market and advised US regulator the Commodities Futures Trading Commission (CFTC) of the potential eventuality of negative prices.

Mike Davis, ICE's director, oil market development, said his organisation took a similar approach. "There were a number of signs that this was going to be a testing period for oil prices," he said. "I still think that the outright negative price probably still surprised a few people, but the exchange was certainly well prepared for it in terms of assessing the relevant option models that might require changing, should we go negative, to ensure that the systems… would be able to handle negative pricing."

Rob Creamer, Geneva Trading's president and CEO, said market participants were sophisticated and knew that the fundamentals were stacking up for a unique situation at expiration. "The exchanges confirmed these theories to us when they issued notices regarding negative pricing in the weeks before expiration, he said, "so the professional trading community was certainly on notice"."

Going forward, Creamer said market participants will be more mentally prepared and will manage their positions better as expiration approaches, including the possibility of a similar situation two months from now. "It isn't the first price dislocation we've seen in oil and it certainly won't be the last," he said.

Davis said that, although systems and platforms worked well, the WTI contract's volatility may lead to a re-examination of its global benchmark status. "Crude oil is really a bellweather for the global economy, the correlation with GDP is significant," he said. "We're sending a signal to the world about the depths of the economic impact of this and I think it's very important that we think carefully about which benchmarks we're going to use."

The CFTC urged market participants to prepare for extreme market volatility, low liquidity and the possibility of negative pricing.

In an advisory the CFTC said that the unusually high volatility and negative pricing experienced in the May 2020 WTI futures contract last month applies equally to trading in other commodities.

"Designated contract markets, futures commission merchants and derivatives clearing organisations and are encouraged to ensure their customers and members have appropriate information on the risks and technical elements of contracts and trading around upcoming expirations," the CFTC said, and "to regularly assess whether their risk controls and related mechanisms are reasonably designed, fit for purpose, and appropriately implemented".

The CFTC has ruled out lowering initial margin requirements in response to liquidity concerns after the expiry of the WTI May-front-month contract, saying the low only applied to a single contract in a single month.

The Securities and Futures Commission of Hong Kong has warned commodity futures brokers to take precautionary measures to manage the risks of trading crude oil futures amid extreme conditions in international energy markets. ■

> "ICE as well as CME have put a number of product communications out there in terms of preparing for negative prices in European gas."
>
> **Derek Sammann,** senior managing director, global head of commodities and options products, CME Group

Cboe to replicate US options market in Europe

Cboe Global Markets has detailed its plan to revamp the ailing European options market with a new trading venue that will replicate in Europe the highly-effective US options market structure.

The US group said it will launch in the first half of next year an Amsterdam-based trading venue called Cboe European Derivatives that will initially offer futures and options on six Cboe European share indices.

The venue will be Cboe's first European derivatives market and aims to offer European trading firms, including quant-based hedge funds, a European equivalent of the US options market, which is traded electronically on multiple competing exchanges including Cboe.

David Howson, the president of Cboe Europe, said his team has been working hard in recent months on various aspects of the project: developing the technology for the trading venue and its clearing house EuroCCP; engaging vendors to ensure clients can connect; preparing the regulatory applications for the exchange and clearing house; and talking to clients about the market's structure.

Howson told Global Investor on Wednesday: "There has been active discussion about the market design. One of the key differentiators to this initiative is that the market design is going to be different which makes the marketplace interesting to new flow which we think will grow the European derivatives market."

Howson feels the European options market is failing to fulfil its potential because the current markets are not sufficiently transparent, which is a turn-off for some hedge funds that are major traders of US options.

"We've been talking to all the various stakeholders from the market-makers to the sell-side to major index and systematic hedge funds that are the potential source of this additional flow.

"We see the opportunity to offer an open, lit and vibrant order book that can be analysed and interacted with to bring better spreads and more flow to Europe," he said.

Howson continued: "If you talk to a systematic or index hedge fund about the European market, they see a few frictions such as the lack of transparency, which prevents them from interacting with and assessing the market in a meaningful way."

Cboe believes the current European options markets lack transparency partly because Mifid II reporting rules exempt orders over a certain size from real-time reporting. Howson said the European market is characterised by block-matching, also known as the "call-around" market, where orders are agreed off exchange and then only input on to the exchange as blocks.

He said: "Because of the transparency rules with Mifid, these trades are not published until the end of the day so it's very hard to understand what's going on, which means the spreads and the depths of books are less attractive then they could be."

Howson said: "We have to get the rule books, the participant manuals and the associated documentation approved and we are planning to submit them to the AFM in July, and let participants have a first look at the draft rule books for the venue."

The Cboe president said it is vital Cboe European Derivatives finds the right proposition to attract the quant funds as they could provide much-needed additional liquidity in European options.

"For the systematic hedge funds, through the ability to trade in one place six benchmarks from day one with the right-sized contracts, with the appropriate tick sizes in a lit market order book with a single margin pool, the frictional cost of trading is much lower," Howson said.

Ade Cordell, the newly appointed president of Cboe NL, the group's Amsterdam-based arm, said a cross-section of participants, including the quants, is needed to build a viable market and Cboe is having these conversations.

"We have spoken to the sell-side institutions, we are speaking to quant funds, particularly the European arms of the US funds, we are speaking to proprietary traders in Europe and we are speaking to market-makers and retail brokers, so those firms that offer futures and options products to their retail clients," he said.

The exchange group said it will launch Cboe European Derivatives in the first half of 2021 while Cordell said the exact date will be determined partly by clients.

He said: "We will go live when we have a core set of participants ready. The pandemic may have effect on participants' readiness but we want a core set of participants to coalesce around the platform on day one. We want to see volumes print, we want to make sure the technology works front-to-back and we want to see a gradual uptick in volumes from there on." ■

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>
> **David Howson,** president of Cboe Europe


check out our solution finder
and put the *flow* back into
your trade flow
Find your solution at **https://info.euromoneytradedata.com/solutionfinder-GIG**
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