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SECURITIES FINANCE:

PROVABLE MARKETS ENVISAGES A NEW FUTURE FOR SECURITIES FINANCE

Derivatives:

Stéphane Boujnah, the CEO and Chairman of Euronext, reflects on life with Borsa Italiana

CUSTODY:

JP MORGAN WINS GLOBAL CUSTODY SURVEY 2021

VALÉRIE BAUDSON

New Amundi chief discusses the key opportunities for the French asset manager

NUMBER 307

Adaptability comes to the fore

This issue of Global Investor marks the end of an era. This is the last issue of the magazine that will be printed and sent to subscribers, drawing a line under decades of print publishing.

There is a feeling of inevitability about the decision of course. Print has been a dying medium for years and we have finally decided to drop print and move bravely into a 100% digital world.

As our subscribers might testify, adaptability has emerged in recent years as a crucial attribute in corporate life. From the fall-out of the financial crisis in 2008 to Brexit and the COVID pandemic more recently, those firms that have thrived have been those that have adapted quickly and smoothy to new ways of working.

It is appropriate then that this issue features firms embracing change.

Our cover feature profiles Valérie Baudson, the new chief executive of Amundi, the largest European asset manager and the only European asset manager that makes the top ten globally by assets under management.

Baudson replaced former long-standing chief exec Yves Perrier in May, just weeks after the Paris-based firm completed its €825m (£700m) acquisition of ETF giant Lyxor from Societe Generale.

The new chief executive Baudson ran Amundi's ETF and passive investment arm before taking the top job so she is perfectly-positioned to oversee the integration of Lyxor into the broader Amundi structure.

Looking ahead, the Amundi chief is also keen to maintain the French firm's leadership in environmental, social and governance (ESG) investing, where it already manages some €800bn of assets.

Baudson also wants to expand Amundi's presence in the fast-growing Asian markets, and plans to re-use its approach in that region so far of partnering with an Asian institution to launch a jointly-owned Asian-based firm.

Another European institution working hard to digest a recent acquisition is Euronext. The European exchange group completed in late April the €4.4 billion acquisition of Borsa Italiana Group from the LSE Group.

It was by-far the largest deal undertaken by Euronext in its long history, indeed Stéphane Boujnah, the CEO and Chairman of the Managing Board of Euronext, describes the acquisition on page 27 as "transformational" for the exchange group.

He's not wrong.

With the Italians, Euronext now has a market cap of over €10bn, compared to €1.4bn some seven years ago when the group went public. Euronext also accounts for one quarter of European share trading with an average daily volume of €12bn.

Some 29 of the EuroStoxx 50 call Euronext home and the value of firms listed on Euronext markets is now €6.4 trillion, which is more than the value of firms listed in Frankfurt and London combined.

"Following this transaction, Euronext has become extremely relevant," Boujnah said.

Another firm nearing an inflection point is Provable Markets, a fintech start-up out of New York with high hopes to transform the securities finance market.

Provable Markets chief executive Matt Cohen says on page 32 his firm is awaiting approval from the Securities and Exchange Commission to launch a US Alternative Trading System in securities finance.

The plan is to use cutting edge cryptographic technology to tackle some of the inefficiencies Cohen had encountered in his time as a trader with Merrill Lynch, Jefferies and Nomura.

These three companies reflect the rich diversity of firms in the markets we cover. From a giant asset manager, to a fast-growing exchange and an ambitious fintech, the asset management, securities finance and derivatives have changed beyond recognition in the past two decades.

As we face an uncertain future, the ability to adapt will once again determine the winners and the losers as this industry emerges from the cloud of the pandemic. ■

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Next publication
Autumn 2021

Global Investor (USPS No 001-182) is a full service business website and e-news facility with supplementary printed magazines, published by Euromoney Institutional Investor PLC.
ISSN 0951-3604

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Trading Places

The world's top asset managers, banks, brokers and exchanges continued to shuffle their decks in the third quarter of 2021.

ASSET MANAGEMENT:

Aviva Investors names new head of credit

Aviva Investors has promoted Caroline Hedges to head of credit, effective immediately.

The London-based asset manager announced her appointment in late September, as she succeeds Colin Purdie who was named chief investment officer for liquid markets in June.

In her new role, Hedges will lead teams across investment grade and high yield credit, as well as emerging market debt, liquidity and securities finance. Based in London, she reports to Purdie.

She has spent close to 15 years at Aviva Investors, serving as global head of liquidity and securities finance prior to her promotion.

Robeco deputy Karin Van Baardwijk to become CEO

Robeco has said its deputy CEO Karin van Baardwijk will become the Dutch asset manager's next chief executive in January.

KARIN VAN BAARDWIJK

Van Baardwijk will replace Gilbert Van Hassel who has served as chief executive since 2016 and is moving next year to a senior role at Robeco's owner ORIX.

Maarten Slendebroek, chair of Robeco's Supervisory board, said in a statement: "Karin has shown strong, inclusive leadership and management skills in her current role as COO and deputy CEO.

"Her strengths in operations, technology, sustainability, relationship building, and her extensive experience within Robeco will undoubtedly enable her to be an effective and respected CEO."

Aegon hires three in its sustainability team

Aegon Asset Management has increased the headcount of its responsible investment team to 17 with the announcement of three new hires.

Andy Woods joins the firm in London as a responsible investment manager to support the equities and multi-asset investment platforms.

Jamie McAloon has been appointed as a responsible investment associate to support equities and multi-asset investment platforms. Based in the United States, Curtis Zappala has joined Aegon as a responsible investment associate.

SECURITIES FINANCE:

Deutsche hires Slator to support prime migration to BNP

Deutsche Bank has hired Daniel Slator, former securities finance director at Credit Benchmark and HSBC director of front office business risk and control, to support the migration of its prime services unit to BNP Paribas.

Slator, who has served in a number of senior roles, now serves on Deutsche Bank's prime stock loan desk as a front-office project manager on the migration of the German bank's prime services division to BNP Paribas.

Citi names Southgate head of collateral in Europe

Global custodian Citi has named John Southgate as its new director, head of collateral services in Europe, the Middle East and Africa (EMEA).

Working in the bank's securities services division, Southgate will lead the bank's collateral efforts across the region.

He joins the banking giant from Margin Reform, where he was a senior consultant for 12 months.

Southgate said: "Today I started a new role as the EMEA Head of Collateral Services at Citi, where I began my banking journey some 22 years ago, leaving 16 years ago. I'm very excited to be returning (and feeling old), meeting old and new faces, and I look forward to all that we can achieve together."

Provable Markets appoints head of strategy and sales

Provable Markets, one of the two approved securities finance transactions (SFT) submitters for the impending clearing service in the US, has appointed Halima Butt as head of strategy and sales.

Butt will be responsible for the strategic and commercial direction of the firm, while also assisting with the operational oversight of the New York-headquartered fintech.

She joins Provable Markets as it awaits regulatory approval of its alternative trading system, dubbed Aurora.

Matt Cohen, co-founder and chief executive of the firm, said: "As we move to the next phase of execution, Halima's experience and proven track record as a leader in the industry will play a vital role in breaking down the all too common view that integrating with FinTech solutions need to be a long, hard, and costly endeavour."

CUSTODY:

Northern Trust promotes Paulin to newly created role

Northern Trust has promoted Gary Paulin to lead global strategic solutions for the US custody bank's asset servicing unit.

In the new London-based role, Paulin reports to Pete Cherecwich, president of corporate & institutional services at Northern Trust.

Paulin is responsible for leading the development and design of innovation solutions to help clients both access and benefit from the bank's global offering.

Northern Trust said Paulin's appointment supports its Whole Office, the bank's open architecture, multi-asset solution across the whole investment lifecycle to institutional market participants.

BNY Mellon promotes Sodani to lead client sales

BNY Mellon has promoted Ileana Sodani to a newly created role as global head of client sales asset servicing, according to sources.

Based in London, her appointment was effective in September this year.

Sodani has spent over three decades at the US custody bank in a range of different senior positions.

Prior to her promotion, she was global co-head of asset servicing sales for over a year.

In parallel, she served as managing director, head of international sales asset servicing for Europe, the Middle East and Africa (Emea) and Asia.

From 2016 to 2019, she was managing director, head of Emea business development for asset servicing.

State Street appoints Europe head of global markets

State Street has named Simona Stoytchkova as head of global markets for Europe.

Based in Frankfurt, her appointment was effective in August.

Stoytchkova has also become a board member at State Street, pending regulatory approval.

She joined the bank from IG Europe where she served for over a year as managing director, country head of Germany and the Netherlands, as well as being a board member.

Prior to that, she served at Baader Bank in Frankfurt as global head of electronic trading sales and prime clearing services.

From 2009 to 2016 Stoytchkova was at Societe Generale in roles across London and Paris.

Her most recent role at the French bank being director, head of prime brokerage and clearing sales for just shy of two years.

DERIVATIVES:

US SEC enforcement chief counsel Brenner retires

Joe Brenner, chief counsel of the Division of Enforcement at the US Securities and Exchange Commission (SEC), has retired after more than ten years with the financial watchdog.

Brenner served as the head of the division's office of chief counsel, where he oversaw the process of providing legal and policy advice on potential enforcement actions and other critical issues to the division's leadership and 1,400-person team.

He has held the position since January 2011, the SEC said in a statement.

Commenting on his departure, Gurbir Grewal, director of the division of enforcement, said: "Joe's expertise, counsel, and advice have been invaluable to more than half a dozen Enforcement Directors and countless members of the staff of the Division."

Prime expert Volz swaps JonesTrading for Clear Street

Clear Street, a young prime brokerage firm, has hired Andrew Volz to serve as its chief operating officer and head of prime sales and electronic execution.

Founded in 2018, Clear Street describes itself as a disruptive and innovative new prime broker with an infrastructure that empowers investing for now and the future.

The firm now has more than 250 employees with more than $1 billion (£730m) daily notional traded, and a capital base of over $300 million.

Volz will be responsible for growing the firm's client and revenue base by leveraging its technology platform, and existing relationships with family offices, asset managers and individuals.

LME signs up nine producers to sustainability portal

The London Metal Exchange said that nine producers including Anglo American and RUSAL have committed to provide regular sustainability disclosures on a digital service the exchange launched in August.

The LME said nine firms have agreed to submit their sustainability reports through LMEpassport. Those firms are: Anglo American Platinum, Antofagasta, Boliden, Companhia Brasileira de Aluminio, Freeport-McMoRan, RUSAL, Teck Resources, Thailand Smelting and Refining Co. and Zhejiang Huayou Cobalt Co.

"We're delighted to see key members of the metals community taking the opportunity to provide greater visibility of their sustainability credentials," Georgina Hallett, chief sustainability officer at the LME, said in a statement.

"Transparency can help facilitate meaningful progress in important target areas and we're pleased to support our brands in their vital work to drive the sustainability agenda across all base metals." ■

GEORGINA HALLETT

Breaking stories from Global Investor Group

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

ASSET MANAGEMENT:

ESG experts back engagement over exclusion

Environmental, social and governance (ESG) investors have said they prefer engagement to exclusion when trying to influence company behaviour.

Speaking at the Sibos conference in London, experts said exclusion in controversial sectors continues to take a back seat as client engagement prevailed as the optimal solution to tackle climate change.

Investors should look beyond tech stocks - RWC

Investors should consider diversifying into longer-term income stocks as an alternative to the tech-heavy growth stocks that have dominated since the pandemic, a fund manager has said.

Nick Clay, the manager of the RWC Global Equity Income Fund, issued a research note suggesting investors need to look beyond the growth stocks that have out-performed in the last 18 months.

SECURITIES FINANCE:

EquiLend hits record trading day in a busy September

EquiLend said it had its busiest trading day at the end of September, reflecting a strong month of trading driven by heightened demand in Europe and North America.

The London-based securities lending platform had its busiest single day of trading on September 21 when it executed over 126,000 transactions with a combined value of $173 billion (£127bn), the firm said in a statement.

Short-selling is compatible with ESG principles - think-tank

Short-selling is compatible with environmental, social and governance (ESG) investment principles, a think-tank has claimed.

Financial think-tank Planet Tracker said on Thursday that shorting an unsustainable listed firm is an acceptable strategy for ESG investors and is an important part of the responsible investor's toolkit.

CUSTODY:

HSBC Securities Services upgrades post-trade offering

HSBC Securities Services arm has launched a new open-access platform that promises clients access to its own and rivals' post-trade products and services.

The bank said the new offering, called HSBC MarketSpace, gives clients access to its own post-trade services and solutions as well as those provided by third-parties in a one-stop shop.

Half of firms see US equities on T+1 by 2026 - Citi

Almost half of the respondents to a survey by Citigroup believe that the US equity settlement cycle will be reduced to T+1 in the next five years, reflecting growing pressure for a cut in the US. The US bank published on Monday the results of a global study that polled over 400 banks, brokers and asset managers on some of the key issues around custody and settlement.

DERIVATIVES:

Sigma Broking piles into metals, FX and wealth

Sigma Broking's plan to become the LME's first new ring-dealing member in years is only one part of a broader strategy that has seen the London-based firm also move aggressively into foreign exchange and wealth management.

The London-based broker, which supports financial and commodity futures traders, should be approved in the coming weeks according to sources.

HKEX chief Aguzin affirms exchange's China commitment

Nicolas Aguzin, chief executive of Hong Kong Exchanges and Clearing, reaffirmed the key role of China in the exchange group's commodities strategy after HKEX gained US approval for the launch of its first China A shares derivatives product.

Delivering a keynote address to open HKEX-owned LME's week of seminars, Aguzin said that supporting the Chinese market would continue to drive his firm's strategic thinking. ■

NICOLAS AGUZIN

Amundi chief Baudson talks ESG, Asia and diversity

The new chief executive of Europe's largest asset manager identifies key opportunities for the firm as it works to integrate Lyxor, the French ETF manager acquired from Societe Generale in April

By **Luke Jeffs**

Valérie Baudson took over in May the top job in European asset management when she became the chief executive of Amundi, the largest European manager and the only European firm in the global top ten by assets under management.

Baudson, who previously ran Amundi's ETF and passive investment arm, replaced former long-standing chief exec Yves Perrier just weeks after the Paris-based firm completed its €825m (£700m) acquisition of Lyxor, the ETF firm, from Societe Generale.

Baudson's appointment and the Lyxor deal underlines the French firm's plan to expand in ETFs and alternative asset management but Baudson's challenge reflects the fact that she is now running a global and diverse asset manager with an eye-watering €1.8 trillion of assets under management.

Speaking after Amundi won the Global Investor Asset Manager of the Year award for 2021, Baudson is fully aware of the responsibility she has taken on.

"Today, Amundi is the industry's European leader, recognised worldwide for its expertise, its growth momentum and profitability, as well as for its commitment as a responsible investor, and we are proud of what has been achieved throughout this time."

Baudson continued: "As the largest on the continent, and in the top 10 worldwide, we have many strengths when it comes to expertise and capabilities, but one that I would like to focus on is responsible investment."

Responsible Investment

As the largest asset manager in Europe, the home of environmental, social and governance (ESG) investing, Amundi has an obvious advantage over its US peers in that it has more experience managing these types of assets.

Baudson said: "For us this is not new. When Amundi was created in 2010, one of our founding pillars was responsible investment: to be an asset manager and societal player was a conviction and not a marketing move."

She added: "As a leader on ESG, Amundi is able to offer institutional investors, clients of the partner's networks and third-party distributors investment and savings solutions that meet their expectations regarding social and environmental goals."

Amundi manages today €800bn of assets in responsible investments, of which €680bn are recognised under Articles 8 and 9 of Europe's Sustainable Finance Disclosure Regulation (SFDR), part of the EU ESG Action Plan.

Similarly, all of Amundi's actively managed open-ended funds take ESG criteria into account with a better ESG rating target than the investment universe whenever is possible

Baudson said: "Acting as a responsible financial institution is a founding principle of Amundi since our creation in 2010 and a core commitment of our development strategy. This commitment is reflected in our responsible investment process, the solutions range Amundi has developed to help investors define and implement their responsible investment strategy, and our engagement and voting policy."

Amundi is proud of its track-record. Last year it participated in 4,241 shareholder meetings and voted on

> "As a leader on ESG, Amundi is able to offer institutional investors, clients of the partner's networks and third-party distributors investment and savings solutions that meet their expectations regarding social and environmental goals."

> As a large player, we have a responsibility to deliver benefits to society in addition to our fiduciary duty. As a continent, Europe has made huge strides in developing the conversation around sustainability and ESG – and the latest health crisis and recent regulations that have come into force have certainly amplified that focus

nearly 50,000 individual resolutions, according to the firm's annual report. The firm voted against at least one resolution in more than 70% of those meetings and one fifth of the total votes cast by Amundi objected to a proposed resolution, the 2020 annual report said.

Baudson continued: "This stems from our belief that sustainable investing leads to better performance and business outcomes, and from our responsibility as a societal player.

"We are a European leader in effecting change – namely through our corporate engagement with some of the world's largest companies, and the work we are doing with corporates in helping align their climate strategies with the Paris Agreement. We have joined the coalition of asset managers committed to carbon neutrality by 2050."

Amundi joined in July the Net Zero Asset Managers initiative committed to supporting the goal of net zero carbon emissions by 2050 or sooner in line with global efforts to limit warming to 1.5 degrees Celsius.

ESG investing is a fast-growing market, led by an increasingly vocal and active new generation of investors, but the ESG cause has in recent years become mired in arguments about standards. Amundi feels it has a role to play here also.

Baudson said: "As a large player, we have a responsibility to deliver benefits to society in addition to our fiduciary duty. As a continent, Europe has made huge strides in developing the conversation around sustainability and ESG – and the latest health crisis and recent regulations that have come into force have certainly amplified that focus.

"That being said, there are still areas where there is still work to be done, notably in the field of disclosure, reporting, data, and measurement. We want to help the rest of the industry and the real economy gain the tools needed to understand whether an economic activity is environmentally sustainable, and support corporations and regulators in the transition to the low-carbon economy."

Baudson added: "It is also important that as a manufacturer of savings solutions, that we help investors better understand their investments and how these meet the commitments from the Paris Agreement."

Eastern Promise

Amundi, like its peers, is also positioning itself to tap the fast-growing markets in Asia. The asset manager currently has an investment hub in Tokyo, local investment centres in Hong Kong, Kuala Lumpur, Singapore and Taipei, and joint ventures in Mumbai, Seoul and Shanghai.

Baudson said: "In terms of where we see future growth, the wider Asia region is an important growth driver for the group, and we see it as one of our major markets in the coming decade. We will continue to pursue

Amundi in numbers

€1.8 Trillion of assets under management

6 International hubs

35 Countries where Amundi has a presence

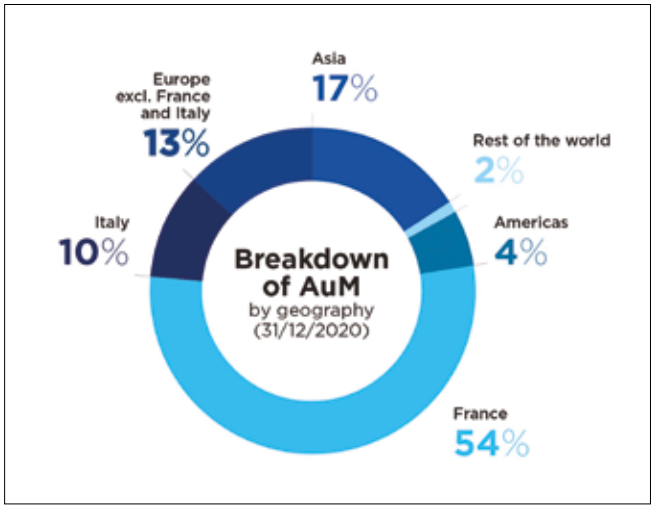
100 Million retail clients

1,000 Third party distributors

1,5000 Institutional clients

4,800 Staff worldwide

Source: Amundi



Breakdown of AuM. By geography. As of 31/12/2020
Source: Amundi

our development in this region, both directly and through our joint ventures, with SBI in India, NH CA in South Korea and ABC in China."

Amundi owns 30% of a joint venture with South Korean asset manager NH formed in 2003 and a 37% stake of the partnership formed with Indian manager SBI in 2004. The French firm also owns 33% of a joint venture created in 2008 with ABC, China's third largest bank with 400 million retail clients.

More recently, Amundi and BOC Wealth Management, a subsidiary of the Bank of China, established last year a new joint-venture in China called Amundi BOC Wealth Management Company Limited. Amundi owns 55% of the first foreign majority-owned wealth manager in China, which opened for business in October 2020.

Baudson said: "We are proud to be the first foreign majority-owned company in China allowed to design and offer wealth management products."

"Considering the depth of the wealth management market and its growth potential, we expect a strong course of development," she added.

Baudson said Asia is an obvious opportunity for a large European firm with Amundi's expertise and products.

"It is one of the fastest growing markets for simple reasons: GDP growth rates are the highest and savings are linked to GDP. This is especially true in this region where the savings rate is higher. We are now at €300 billion of AUM in the region, with an objective of €500 billion in five years."

The chief executive said she is keen to continue Amundi's strategy of partnering with established onshore firms in Asia, which Baudson said provides the opportunity "to export our savoir-faire".

She added: "Our partnerships there give us a unique position in this fast-developing market. Last month, our JV with the State Bank of India, raised more than $2 billion (£1.5bn), completing the largest active mutual fund launch ever in the country (our JV is now the largest asset manager in India). In addition to China, where

Baudson on Diversity

Baudson's appointment in May to become the most powerful woman in European asset management was an important milestone for gender equality but it reflects a broader shift at the firm.

In results published in July last year, Amundi climbed an impressive 37 places to take the top spot among the financial firms and 21st overall among the various companies that make up the French SBF 120 index when ranked by gender equality.

The number of women who sit on the firm's executive committee rose to 28.6% last year from 18.6% in 2019. Women now hold 41.7% of the jobs at Amundi and 35% of the management positions.

Amundi said in its 2020 annual report this "leap forward" is the result of "deliberate policies which will actively continue in 2021."

Baudson told Global Investor: "We strongly believe that having a diverse workforce is essential to business success, and it really boils down to applying the principles of sustainable development to our own business. Therefore, we devote a lot of resources to promoting equal opportunities in France and abroad."

In the United Kingdom, Amundi UK signed the Women in Finance charter in 2019. Amundi also joined forces with six French asset management companies in 2020 to create the "30% Club France Investor Group" to promote gender diversity within the governance bodies of SBF 120 companies.

In the United States, Amundi takes part every year in the Women In Investing conference organised by Cornell University's SC Johnson College, with a dual objective: to educate female MBA students about the asset management industry; and to facilitate networking and recruitment opportunities.

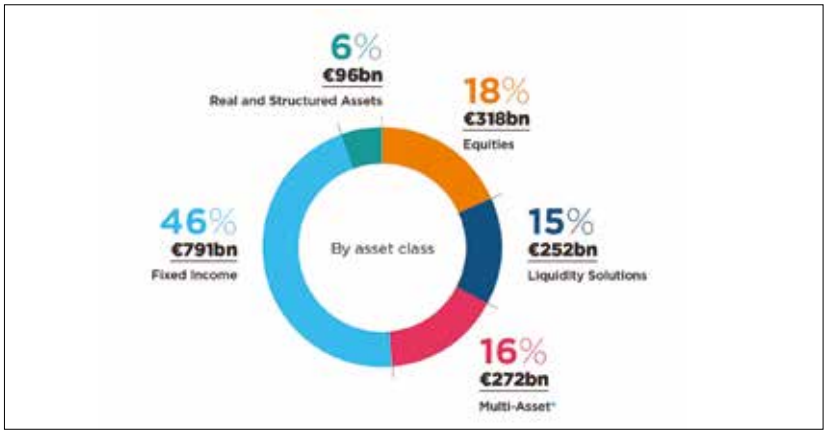
Baudson added: "When we talk about diversity, we don't just mean gender, but diversity in all its forms."

Amundi has also introduced awareness-raising and training initiatives to combat stereotypes and counteract decision-making bias.

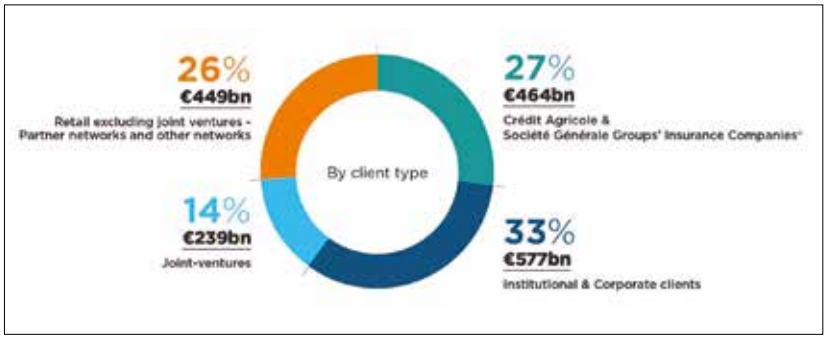
In France, between 2018 and 2020, all managers attended training sessions on diversity and non-discrimination issues, and, since 2018, a diversity management programme has been included in the training process for managers taking up a new position.

In the US, managers have undergone mandatory training on unconscious bias. In Japan, the focus has been on harassment, with training on how to prevent it, including awareness raising on non-discrimination. Diversity and inclusion training has also been implemented in Ireland and the United Kingdom, she said.

> Scale has many benefits, indeed, but we wouldn't pursue AUM for the sake of it. Our objective is to continue growing our business lines, whether it is our ETF business or Real Assets, or whether it is innovative ESG solutions across different asset classes and strategies



Breakdown of AuM. By asset class. As of 31/12/2020 Source: Amundi



Breakdown of AuM. By client type. As of 31/12/2020 Source: Amundi

we have ambitious plans to continue growing, in the rest of Asia, today, it is India that is mainly driving our growth."

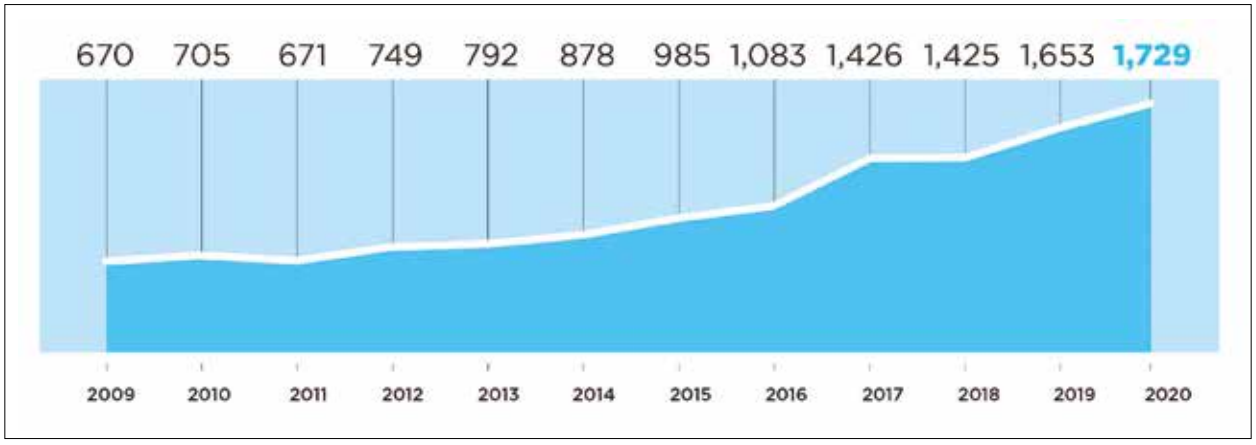
Commitment to Continuity

Baudson sees Amundi as a modern, efficient, global asset management firm with the attributes to scale-up on various fronts simultaneously.

"Another strength of ours is the industrialised business model and our both global and local organisation, which have been a key driver of our success. We have been created as an open platform to serve various network and various third-party distributors in more than 35 countries, and to serve all institutional with all the range of expertise – active and passive, traditional and real assets.

"This has allowed us to continuously invest in new solutions and services for our 100 million retail and institutional clients worldwide, and that equips us with the tools and firepower to adapt to new dynamics and changing environments."

Amundi currently has over 100 million retail clients, over 1,500



Growth in assets under management 2009-2020: Assets under management at year-end, in €bn Source: Amundi

institutional customers and over 1,000 third party distributors.

Amundi is proud to be the largest European asset manager by assets under management but size is not a key objective for the chief executive.

"Scale has many benefits, indeed, but we wouldn't pursue AUM for the sake of it. Our objective is to continue growing our business lines, whether it is our ETF business - which the teams are very busy with since the acquisition of Lyxor Asset Management - or Real Assets, or whether it is innovative ESG solutions across different asset classes and strategies. The needs of our clients are increasingly sophisticated and dynamic, and our objective is to partner with them and support them in this ever-changing world."

She added: "In terms of clients, we will accelerate our development in our two client segments by consolidating our leadership as a preferred partner of networks and distributors and, by increasing our penetration among institutional clients leveraging our full range of expertise and advisory and services offering."

The French manager created in March this year Amundi Technology designed to boost the sale of the firm's various technology assets to asset managers and other investment companies.

Baudon added: "Our last priority is technology development. Amundi has strategically opted for total sovereignty over its tools. We are now ready to offer them through Amundi Technology to anyone looking for alternative solutions."

The new Amundi chief has only been in the seat for five months and her immediate challenge is to integrate the Lyxor business acquired by her predecessor. Given Amundi's growth trajectory over recent years, Baudson sees no need for a radical change of direction.

Baudson told Global Investor: "Currently my plan is to continue the strategy of development that has served us well until today. There is no reason to drastically change the way we operate." ■

Valérie Baudson

Member of Executive Committee of Crédit Agricole S.A., Chief Executive Officer of Amundi

Valérie Baudson is Deputy Chief Executive Officer of Crédit Agricole S.A. in charge of the asset management division and a member of the Executive Committee of Crédit Agricole SA since May 2021. In this capacity, she is Chief Executive Officer of Amundi.

Baudson began her career in 1995 at Banque Indosuez in the General Audit department. She then joined Crédit Agricole Cheuvreux, the European brokerage subsidiary of the Crédit Agricole Group, as General Secretary and then Marketing Director for Europe.

Baudson joined Amundi in 2007 to create the ETF, Index & Smart Beta business line. Amundi ETF is now the fifth largest player in Europe. She went on to become a member of the group's Executive Committee in 2013 and then a member of the Management Committee in 2016, when she was also appointed Managing Director of CPR AM, an active asset management company recognised for its thematic and ESG expertise. At the same time, Valérie took on the supervision of Amundi's subsidiaries in Germany and Spain.

In 2020, she also took charge of the division dedicated to the Amundi Group's retail and private banking clients worldwide.

She was appointed Chief Executive Officer of Amundi in May 2021, succeeding Yves Perrier.

Valérie is a member of the Board of Directors of CA Indosuez Wealth, a member of the Strategic Committee of the Association Française de la Gestion Financière (AFG) and President of Paris Europlace Investors' College, which recently published the report "Investing with Purpose and Responsibility".

She is a graduate of HEC Paris.

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INVESTMENT EXCELLENCE AWARDS 2021

EQUITIES MANAGER OF THE YEAR

FIDELITY INTERNATIONAL

Fidelity is an active fund manager that focuses on bottom-up global research. With one of the largest buy side research teams in the world, Fidelity boasts a unique ability to identify investment themes and ideas across different market cycles.

The manager has a team of more than 400 investment professionals connecting ideas across asset classes, sectors and regions. Insights are shared in real-time across the team to identify patterns and highlight investment ideas, so Fidelity and its clients can stay ahead of the game.

Fidelity International provides world class investment solutions and retirement expertise to institutions, individuals and their advisers - to help clients build better futures for themselves and generations to come. As a private company, Fidelity International thinks generationally and invests for the long-term. Helping clients to save for retirement and other long-term investing objectives has been at the core of its business for over 50 years.

Established in 1969 as the international arm of Fidelity Investments, which was founded in Boston in 1946, Fidelity International became independent of the US organisation in 1980, and is today owned mainly by management and members of the original founding family.

The Fidelity Global Equities Fund is designed to achieve returns in excess of the MSCI All Country World Index NR over the medium to long term. The fund deploys a diversified portfolio of 80-120 of some of the best ideas globally drawn from Fidelity's global research and financial modelling.

Engagement is at the heart of the Fidelity approach and as one of the largest asset managers in the world, the firm uses its corporate access, committed relationships and continuous work with companies to create lasting value for all.

The firm uses sustainability ratings, inputs from its large specialist ESG team and external analysis and ratings to inform a view of a company's ESG performance. ■

FIXED INCOME MANAGER OF THE YEAR

DODGE & COX

Investment management is Dodge & Cox's only business. It is focused on providing US, global, and international equity; fixed income; and balanced account management.

Dodge & Cox's fixed income philosophy is to construct and manage a high average quality portfolio of securities that are selected through bottom-up, fundamental analysis. The firm believes that by combining fundamental research with a long-term investment horizon it is possible to uncover and act upon inefficiencies in the valuation of market sectors and individual securities.

Dodge & Cox was founded in 1930 and boasts a stable and well-qualified team of investment professionals, most of whom have spent their entire careers at the firm. This group has worked together in consistently applying the investment philosophy over a period of many years. Dodge & Cox believes that the experience and stability of the investment team enables the firm to build and retain deep institutional knowledge of individual companies and understanding of different markets.

The investment team seeks investment opportunities worldwide, from a single office in San Francisco. The firm believes that physical proximity, and the fact that many of the professionals have worked together for at least a decade, facilitates effective communication and decision-making. This stability and cohesion is reflected in the firm's Investment Committees, where the members' average tenure at Dodge & Cox is over 15 years.

In these committee meetings, individual analysts advocate their investment ideas. Each recommendation is subjected to intense group scrutiny, for both its merits as a specific investment and its role in the overall portfolio. Debate over each proposed purchase or sale is a respectful if sometimes vigorous exchange among colleagues. When all voices have been heard, the group takes action or reconvenes if further research is warranted.

Independent research is at the heart of each investment, forming a well-grounded thesis that looks out at least three years. Through investigation, the firm can more completely understand the forces that will determine an investment's success. ■

BOUTIQUE MANAGER OF THE YEAR

GQG PARTNERS

The GQG Partners approach is based on a unique perspective that tempers ambition with humility and is guided by one simple principle: never settling.

This means the firm is consistently innovating, ensuring a laser focus on quality, and striving to maintain the trust of clients requires an unwavering commitment to discipline.

The firm said it does believe past performance is an indicator of future success because the world is changing faster than ever. GQG believes by identifying the company's ongoing competitive advantage it can gain clarity on the durability of their future earnings.

The pursuit of durable earnings makes the firm dynamic and flexible, transcending the boundaries of artificial qualifiers like value, and growth — measures that can "anchor" investors to a style, not necessarily good companies. The firm values adaptability over dogmaticism.

The Emerging Markets Equity strategy seeks to invest in quality companies with attractively priced future growth prospects in emerging markets.

GQG Partners' fundamental investment process evaluates each business based on financial strength, sustainability of earnings growth, and quality of management. The Emerging Markets Equity portfolios seek to limit downside risk while providing attractive returns to long-term investors over a full market cycle.

The firm, headquartered in Fort Lauderdale, Florida, launched in July three dividend income mutual funds: GQG Partners Global Quality Dividend Income Fund, GQG Partners International Quality Dividend Income Fund, and GQG Partners US Quality Dividend Income Fund.

The new funds seek to invest in high-quality dividend-paying companies with attractively priced future growth prospects.

Their focus' is primarily on the liquid securities of large-cap issuers in both developed and emerging markets. GQG Partners' fundamental investment process evaluates each business based on financial strength, sustainability of earnings growth, and quality of management.

The resulting funds seek to manage downside risk while providing capital appreciation, dividend income, and attractive returns to long-term investors over a full market cycle. ■

EMERGING MARKETS MANAGER OF THE YEAR

ARTISAN PARTNERS

Artisan Partners, an independent investment management firm focused on providing high value-added, active investment strategies to sophisticated clients globally, has won the Global Investor Emerging Markets Manager of the Year award for the second consecutive year.

The company focuses exclusively on active, high value-added investment strategies where experienced investment professionals pursue superior results through a combination of original thinking and a disciplined approach.

The firm boasts a strong philosophical belief in the autonomy of each of its investment teams. Artisan provides each investment team with ample resources and support but does not deploy a centralised research function. Each investment strategy is focused on an area that the firm believes provides opportunities to generate returns in excess of the relevant benchmarks.

The business model is designed to attract, develop and retain talented investment professionals by allowing them to focus on portfolio management in an environment conducive to producing their best work on a consistent, long-term basis.

The firm's experienced business leadership team supports its investment management capabilities by managing a centralised infrastructure, which allows investment professionals to focus primarily on making investment decisions and generating returns for clients. Artisan is careful to ensure its interests are aligned with the long-term interests of clients.

Another feature is that investment professionals' incentives are directly tied to the growth in client capital generated by the strategies they manage; additionally, the leaders of the various investment teams have meaningful capital invested alongside clients in those strategies and are equity partners in the firm.

The company believes that evolution requires thoughtful growth. It writes: "A lack of growth or growth for growth's sake can make a business unattractive to investment talent. Our entrepreneurial mindset keeps us actively looking for ways to maximise long-term career opportunities for our existing investment professionals and make our business attractive to prospective investment talent." ■

ESG MANAGER OF THE YEAR

ROBECO

The Dutch manager has long been the market-leader in the increasing congested field of ESG investing.

Robeco, an international asset manager offering an extensive range of active investments, from equities to bonds, has won the Global Investor ESG Manager of the Year Award for the second year running.

Research lies at the heart of its investment strategy, with a 'pioneering but cautious' approach that has been in its DNA since its foundation in Rotterdam in 1929. Robeco is committed to sustainability investing, quantitative techniques and constant innovation.

The Dutch manager currently has about €200 billion under management of which €177 billion are in ESG strategies, drawing heavily on its sustainability affiliate RobecoSAM, the leading experts in the field since launch in the 90s.

The firm tailors its solutions to individual risk budgets and sustainable investment needs, while ensuring ESG information is consistently integrated into investment processes.

With an extensive range of impact investing products, the firm also caters to investors with explicit ESG targets, like environmental footprint reduction, investors who wish to contribute to the sustainable development goals, or invest in themes, like water or gender equality.

Robeco's team of engagement specialists maintains an active dialogue with hundreds of companies to influence corporate behaviour. They also vote at thousands of shareholder meetings, creating real change.

The firm endorses numerous codes of conduct and principles. Robeco is a PRI signatory, a participant in the UNGC and the ICGN. It has also signed the Dutch SDG Investing Agenda and several local stewardship codes.

In 2020, Robeco and RobecoSAM were again awarded the highest possible A+ sustainability scores by the Principles for Responsible Investment (source: PRI).

Robeco said in October 2021 its deputy CEO Karin van Baardwijk will become the Dutch asset manager's next chief executive in January 2022.

Van Baardwijk will replace Gilbert Van Hassel who has served as chief executive since 2016 and is moving next year to a senior role at Robeco's owner ORIX. ■

BROKER OF THE YEAR

BGC PARTNERS

US-based BGC Partners is one of the last remaining inter-dealer brokers in the industry.

BGC Partners launched in July last year an electronic trading platform for listed futures and options in collaboration with market-makers Optiver, IMC and Maven Securities.

The broker said the aim was to connect liquidity takers with liquidity makers in a transparent marketplace while allowing traders to access liquidity anonymously, and recognising the importance of electronic trading.

"There was a gap in the market for listed equity derivatives that Fenics GO fills by providing an efficient and compliant platform for accessing liquidity electronically," Dean Berry, global head of electronic and hybrid markets, at Fenics, a division of BGC Group, said in a statement.

The platform won the Trading and Execution Solution of the Year in FOW's International Awards 2020.

The fully anonymous and multilateral trading platform enhances the voice brokerage model by connecting participants and intermediaries directly in an electronic environment. It is open to all liquidity providers, global banks and non-affiliated third-party brokers.

Key to the development of Fenics GO was a derivatives trading model that had remained the same since the London International Financial Futures and Options Exchange, now ICE Futures Europe, and Marché à Terme International de France, now Euronext Paris, moved to an electronic environment in the late 1990s.

"For more than 20 years, the way to trade the market did not change," said Jean Pierre Aubin, co-global head of brokerage at BGC, "so we decided to create Fenics GO."

The platform enables users to access liquidity without disclosing identity, size, or direction to the market. Multiple protocols offer a choice between providing a price during the request-for-stream stage or joining the volume clearing session after a price has matched.

"BGC has always been strong in its electronic business," said Aubin, recalling the sale of its US Treasury notes and bond platform eSpeed to Nasdaq in 2013 and commodities platform Trayport to Intercontinental Exchange in 2015. ■

CUSTODIAN OF THE YEAR

NORTHERN TRUST

The US-based custody and fund administration supplier has kept busy in the past year.

Northern Trust promoted in October Gary Paulin to lead global strategic solutions for the US custody bank's asset servicing unit.

In the new London-based role, Paulin reports to Pete Cherecwich, president of corporate & institutional services at Northern Trust.

Paulin is responsible for leading the development and design of innovation solutions to help clients both access and benefit from the bank's global offering.

In September, Northern Trust backed behavioural analytics and consultancy firm Essentia Analytics by taking an equity stake in the fintech.

The US custody bank said Essentia Analytics solutions complements the Northern Trust Whole Office as it gives clients access to new technologies across the investment lifecycle.

Commenting on the announcement, Cherecwich said: "Essentia's next generation data analytics technology allows institutional investors – both asset managers and asset allocators – to embed data-driven feedback into their investment process.

The custodian landed in June a mandate to provide asset servicing solutions to Fundsmith, a London-headquartered investment management firm.

The US custody bank is providing fund accounting, transfer agency and global custody services to its Luxembourg-domiciled funds, Fundsmith SICAV.

Fundsmith holds more than £33 billion of assets under management (AuM) as of December 2020 end, and has offices in Mauritius and Connecticut, alongside its UK hub. Fundsmith SICAV has €6.4 billion (£5.5 billion) of AUM as of June 1.

Also in June, Northern Trust named Angelo (Ange) Calvitto as head of Asia Pacific (APAC).

Cherecwich said: "The Asia-Pacific region is a leading centre for technology innovation, with Singapore as a key hub, particularly for our blockchain initiatives."

Based in Melbourne, Calvitto is responsible for driving the growth of the asset servicing business for institutional clients.

He joined the Chicago-headquartered bank in 2008, where he most recently served as country head for Northern Trust's business in Australia. ■

FUND ADMINISTRATOR OF THE YEAR

HSBC SECURITIES SERVICES

HSBC won in June a mandate from True Potential to provide it with depositary, global custodian and fund administration services.

The Newcastle Upon Tyne-headquartered financial services firm will also utilise HSBC's fund accounting and transfer agency services for its 34 UK authorised funds, which have a combined £17 billion of assets under management.

Michelle Butler, head of business development and client management, Europe, at HSBC Securities Services, said: "We're delighted HSBC was awarded this new mandate to provide a range of global custody and fund administration services to True Potential's UK authorised funds, and to support its newly formed in-house authorised corporate director."

The British bank launched in March a new tool for asset managers and institutional investors to analyse the efficiency of their currency hedging strategies.

FX HEAT offers clients access to independent reports which are generated on an automated basis to increase governance and oversight of their foreign exchange hedging.

HSBC said at the start of this year it will "stop trying to be everything to everyone" and instead capitalise on the advantages that it has, while continuing its aggressive redundancy strategy, said Noel Quinn, chief exec of the bank.

Quinn said in February: "Global Banking and Market (GB&M) will retain the capacity to serve clients globally but we will invest in the markets that set us apart whilst also moving the heart of the business to Asia, including leadership.

"We'll spend around $800 million (£568 million) in GB&M in Asia to build better digital market platforms to support our wealth strategy, to build better market access and execution capabilities for our wholesale clients, and to expand our investment banking coverage across Asia."

HSBC Singapore named Noor Adhami as head of securities services for the country, effective February 1.

She has held multiple roles at the bank since 2004, most recently as regional head of global liquidity and cash management for the Middle East and North Africa (Mena) and Turkey. ■

ESG CUSTODIAN AND PRIVATE EQUITY FUND ADMINISTRATOR OF THE YEAR

BNP PARIBAS SECURITIES SERVICES

BNP Paribas Securities Services recently ramped up its environmental, social and governance (ESG) capabilities by adding two fintech partners to its open service sustainability platform Manaos.

The bank said in July Util and V.E had joined its ESG marketplace.

Util quantifies the extent to which listed companies positively and negatively impact the 17 goals set out by the United Nations Sustainable Development Goals (UN SDGs) using machine learning.

Patrick Wood Uribe, chief executive officer of Util, said: "The partnership between Manaos and Util supports our long-term goal of empowering all investors to better understand and compare the impact of their investments.

"Our analytics provide greater accuracy, coverage and depth than traditional datasets or aggregators. This new way of measuring impact gives our clients unprecedented insight into how their portfolios affect the complex social and environmental challenges facing the world."

V.E is part of Moody's ESG Solutions. Its data, scores and assessments are used by investors to analyse their exposure to ESG risks and opportunities.

Chinese fund manager Harvest Global Investment chose in March BNP Paribas Securities Services to provide fund services for its new CSI 300 ESG fund.

Harvest, one of the largest institutional asset managers by assets under management, launched its new exchange-traded fund (ETF) to identify ESG factors impacting China's onshore market.

Thomas Kwan, chief investment officer at the firm, said: "The Harvest CSI 300 ESG Leaders Index leverages Harvest's proprietary ESG framework to identify ESG factors material to the China onshore market. It provides investors with a more sustainable exposure to China's A-share market while offering the potential for additional alpha."

BNP Paribas Asset Management (BNPP AM) became in September the first manager to track the Euronext CAC 40 ESG index.

The French banking group's asset management arm announced that its BNP Paribas Easy CAC 40 UCITS ETF would now replicate the index.

BNP Paribas Securities Services' private equity fund administration arm offers deep technical expertise and holistic end-to-end solution covering fund accounting, reporting and administrative support.

The firm automated in July the processing of key asset servicing documentation, a major milestone in the bank's digital transformation programme.

The move, which took 12 months to implement, enhanced back office operational efficiency, increase straight-through processing rates and reduce services turn-around times for the benefit of the bank's clients.

Scotiabank reappointed in February BNP Paribas as its pan-European local custody provider, offering custody services across 15 European markets, representing €3.5 billion (£3 billion) in assets under custody.

The renewed agreement, which has been in place for almost a decade, enables Scotiabank to leverage BNP Paribas Securities Services' expertise across asset classes, extensive proprietary network and in-depth knowledge of European markets.

Loretta Marcoccia, executive vice president and COO of global banking and markets at Scotiabank, said: "BNP Paribas Securities Services has been a strong partner for nearly a decade and this mandate recognises the confidence we have in their ability to provide quality service."

BNP's large regional coverage and integrated systems, is well-suited to operate funds across the globe in a cost-efficient way, and reduces time to market for investment solutions.

With operating centres across the Americas, Europe and Asia-Pacific, the firm delivers a comprehensive range of services for international fund managers. The fund administration services include a fully integrated NAV and accounting system, which incorporates full trade lifecycle capture, asset servicing, fund valuation, cash management and unit pricing functions.

BNP currently has €2.7trn assets under administration, covering more than 10,000 funds across the globe and handles 1.2 million NAVs per year. The service covers more than 100 types of fund vehicles including traditional funds, ETFs, hedge funds, private equity, real estate and loan funds.

The firm is present in three geographical regions with a total of 16 local and three global operating centres, covering 19 jurisdictions, staffed by more than 2,000 employees. ■

"Our analytics provide greater accuracy, coverage and depth than traditional datasets or aggregators. This new way of measuring impact gives our clients unprecedented insight into how their portfolios affect the complex social and environmental challenges facing the world."

REAL ESTATE FUND ADMINISTRATOR OF THE YEAR

SUDRANIA FUND SERVICES

Founded in 2016 and headquartered in Chicago, Illinois, Sudrania Fund Services has over 550 clients spanning the entire spectrum of the investment management industry, and has established itself as a proven alternative to legacy fund administration solutions.

The global fund administrator leverages its proprietary Seamless platform, an award-winning, full-scale cloud-based, fund administration application which integrates portfolio, fund accounting and investor reporting, to provide best-in-class and cost-efficient solutions to both the traditional and alternative investment fund management community.

The service can process high-frequency trading volumes to deliver daily NAV for hedge funds, cryptocurrency funds, SPVs, mutual funds, private equity funds, impact funds, commodity pools and mortgage funds. Sudrania's operations and technology are SOC 1, SOC 2, and SOC 3 audited, and it currently has over 800 staff across its eight offices globally.

Sudrania Fund Services Corp delivers dynamic financial services through an innovative and advanced proprietary technology platform. The firm leverages the proprietary Seamless platform, an award-winning, full-scale cloud-based, fund administration application which integrates portfolio, fund accounting and investor reporting, in order to provide best-in-class and cost-efficient solutions to both the traditional and alternative investment fund management community.

Sudrania was built on its proprietary technology, Seamless, a next-generation cloud-based platform that automates manual tasks, ultimately reducing manual errors and improving overall efficiencies. Developed by industry veterans, Seamless can handle any fund structure, asset class, and multiple currencies.

Founded by Nilesh Sudrania, a fund administrator of 15 years' experience, Sudrania saw the possibility of transforming the industry and knew he could utilise technology to launch one of the most innovative and efficient firms in back office services.

Nilesh's primary goal with Seamless was to address all the asset classes in one easy-to-use application. Through technology, the firm can offer the fastest turnaround of data and reports in the industry. Seamless is cloud-based, which means users with a secure login, and an internet connection can view multiple reports and the most up-to-date performance and analytics. ■

TRANSITION MANAGER OF THE YEAR

BLACKROCK

BlackRock has been helping clients shift allocations and implement new investment strategies since 1995.

The goal is to manage transitions cost-effectively and with minimal disruption to portfolios. The firm offers a full suite of transition services ranging from comprehensive cost analysis to advisory services and interim asset management, to full fiduciary transition service management.

BlackRock landed in June a mandate from British Airways Pensions to serve as the outsourced chief investment officer for £21.5 billion worth of assets.

The asset manager said the agreement encompassed assets under management for Airways Pension Scheme (APS) and New Airways Pension Schemes (NAPS).

APS and NAPS were previously managed by the in-house provider, BAPIML, and represent 85,000 members combined.

Roger Maynard, Chair of Trustee APS and NAPS Trustee, said: "Operating as our in-house investment manager, BAPIML has delivered excellent investment performance and stewardship of the Schemes over many years.

"This agreement is the necessary next step in the evolution of the Schemes as they look to enhance their respective investment strategies, working toward their funding goals."

To meet these evolving needs, the UK airline's pension schemes entered into an agreement with BlackRock after a competitive tender process.

BlackRock added that it has designed an investment model which can adapt to the needs of the schemes as they evolve over time. The firms completed the transition of assets on June 1.

Sarah Melvin, head of BlackRock's UK business, said: "We are honoured to be entrusted to manage the assets of these two important pension schemes through the creation of a bespoke model. We look forward to delivering enhanced investment performance for the ultimate benefit of the Schemes' members."

BlackRock launched in November last year an environmental, social and governance (ESG) fund in partnership with Oxford University Endowment Management (OUem), which announced six months earlier it would divest from fossil fuel companies.

OUem selected the US asset manager to create a bespoke equity fund, dubbed the iShares Developed World Fossil Fuel Screened Equity Index Fund. ■

TRANSFER AGENT OF THE YEAR

RBC INVESTOR & TREASURY SERVICES

With over 100 years' asset servicing experience, RBC I&TS helps UK asset managers achieve their domestic and international distribution and investment objectives.

With leading onshore and offshore expertise, the bank supports clients' success in a constantly changing environment.

As one of the first asset servicers supporting UCITS and AIFMD fund structures, as well as one of the largest transfer agents in the EU offshore markets, the bank's expertise enables it to take a collaborative approach with client needs at the centre.

RBC has over 30 years' of UCITS expertise and over five years' of AIFMD experience, which contribute to a 40% market share in transfer agency for Luxembourg and Ireland.

The firm claims 30% of market share for real estate fund domiciled in Luxembourg under administration and has over 10 million shareholder accounts.

The key aspects of RBC I&TS' service that set it apart include:

- A global reach to support the distribution of clients' funds in over 110 countries with extensive connectivity and long-established relationships with over 17,000 distributors to effect high levels of automated trade processing.
- Prioritising the evolution of the digital investor experience as a key strategic pillar of the current and future transfer agency offering, including the efficient investor onboarding and day-to-day customer support via multilingual call centres in Europe and Asia.
- Sharing deep expertise of the transfer agency service and thought leadership with clients which has been developed over decades of meeting the complex needs of sophisticated global asset managers across multiple product types and jurisdictions.
- A commitment towards continuous evolution of the service evidenced by a significant investment in technology, product and service capabilities over recent years. This investment has funded Agile Labs in Luxembourg and Toronto to develop state of the art data and information exchange capabilities and customised data solutions to meet the unique needs of clients, providing them with the data they require across their businesses. ■

TECHNOLOGY INNOVATION OF THE YEAR

STATE STREET

State Street Alpha enables clients to seamlessly assemble and access investment data spanning internal and third-party services across their investment processes.

It provides access to front office data in near real-time, and incorporates data catalogue and visualisation capabilities that result in higher quality data, while reducing cost and accelerating decision making.

The platform, launched in late 2020, is designed for range of clients including investment managers, pension funds, wealth managers, insurers and ETF issuers.

State Street Alpha leverages the product and engineering capabilities of Charles River Development and State Street supported by global service delivery teams ensuring cross- region business resiliency.

"Through partnering with industry innovators such as Snowflake and Microsoft Azure, our platform provides investment managers with access to our trusted data from across Alpha as well as broad spectrum of data in the Snowflake Data Marketplace," said Spiros Giannaros, chief executive officer of Charles River Development.

The Alpha Data Platform connects to data from multiple sources, including Snowflake Data Marketplace, to deliver timely insights while simplifying the user experience for both assembling and consuming this information.

"State Street's vast asset management data combined with Snowflake's Data Cloud comprise a powerful combination of capabilities to streamline the entire investment process and mobilise data in the service of the enterprise," Snowflake CEO, Frank Slootman said.

The Alpha Data Platform's open architecture system, enabled by Snowflake and operated by expert data stewards, allows clients to leverage any number of critical capabilities or services within the platform, together with their own systems and preferred partners. The interoperable Alpha Data Platform will also serve as the foundation for the next stage of development for Alpha's new solutions for cash and position management and performance measurement.

"Data is at the heart of Alpha, our front-to-back platform, and we are committed to providing the leading data platform within the investment management industry. Institutional investors and wealth managers today are challenged by the depth and breadth of data available to them. They need new, innovative tools to manage and interpret this data at scale," said John Plansky, global head of State Street Alpha. ■

CLEARING HOUSE OF THE YEAR

LCH

The London-based clearing house has had a manic year, dealing with the fall-out from Brexit, working to move the industry to Libor alternatives and helping firms prepare for the uncleared margin rules.

The clearing house started the year by appointing David Horner as its chief risk officer, reporting directly to the chief executive of the clearing house Isabelle Girolami.

LCH's swaps arm SwapClear also said at the start of 2021 it processed $1.1 quadrillion (£741tn) in notional value in 2020 from a record 6.4 million trades, a record for that service.

LCH set out in February its approach to the treatment of outstanding cleared Libor contracts when the interest rate benchmark is phased out at the end of 2021.

In May, LCH said JP Morgan was set to become the first client to manage collateral at LCH using Baton Systems' newly-integrated collateral platform for derivatives firms.

In September, LCH was on hand to help asset managers and pensions funds adapt to the new margin rules while SwapClear said in October it plans to move to 24 hour-a-day, five day-a-week trading early next year to win more business from Asian clients.

The London-based clearing house said it will move to 24 hours trading in two stages, the first of which was completed in September.

SwapClear moved its Monday morning opening four hours earlier, to start at midnight London time to support morning trading in the APAC region.

The second phase, slated for March next year, will see SwapClear open earlier on the other four days of the week and move its Monday morning opening forward another four hours to 20:00 Sunday night in London (05:00 Monday in Sydney).

"This initiative underscores our strong commitment to the region and risk management," said Rohit Verma, head of APAC at LCH. "In the extended hours earlier this week, close to a thousand trades were registered and processed near real-time and allowed our users to risk manage those trades in a timely fashion." ■

> The London-based clearing house said it will move to 24 hours trading in two stages, the first of which was completed in September.

EXCHANGE OF THE YEAR

LSE GROUP

The UK exchange has had a transformational year. The LSE Group completed in January its all-share acquisition of US data and tech provider Refinitiv from Thomson Reuters and Blackstone Group, describing the deal as "transformational".

The $27bn (£19.7bn) deal saw LSEG sell off Borsa Italiana Group, including its derivatives exchange IDEM and bond trading platform MTS, to meet European Commission antitrust conditions.

LSEG's chief executive David Schwimmer said at the time: "This transformational transaction brings together two highly complementary global businesses with a shared commitment to an open access philosophy, working in partnership with customers."

"LSEG is focused on delivering the benefits of the transaction helping customers to access data, trading tools, analytics and risk management across the financial markets and at scale around the globe. LSEG is well positioned for long-term sustainable growth in a rapidly evolving landscape as a leading global financial markets infrastructure and data provider."

Schwimmer said in August he was "optimistic" a potential clearing cliff-edge in mid-2022 will be averted by an equivalence deal between the UK and Europe.

The LSE chief said: "The regulators including ESMA are going through their evaluation and will be making their determination, I expect, in the first half of next year."

He added: "We are optimistic and hopeful we will get a resolution that will allow LCH to continue to serve our EU customers."

The European Securities and Markets Authority (ESMA) recognised LCH, LME Clear and ICE Clear as third-country central counterparties (CCPs) in September 2020, enabling those clearing houses to continue supporting European clients after the UK left the EU on December 31 2020.

The European regulator said at the time the recognition only applies until June 30 2022 by which time ESMA committed "to conduct a comprehensive review of the systemic importance of UK CCPs". ■

TRADING SOLUTION OF THE YEAR

PRAGMA

In the equity and foreign exchange (FX) markets, a robust, algorithmic trading platform is a requirement for any major broker-dealer or bank who seeks to provide transparency and best execution to their institutional and corporate clients.

However, the cost and specialised expertise required to build, and in particular maintain, a client-facing algorithmic trading experience can be prohibitive for many institutions.

Pragma's multi-asset algorithmic trading platform, Pragma360, is deployed as a hosted and managed technology service that enables each client to create its own unique, automated algorithmic suite under its own corporate brand.

It has clients trading algorithmically in months, versus the years that it takes for firms to build and scale the service internally. Its client list includes leading global banks and broker-dealers, which leverage the platform to provide a high-quality automated trading experience for their clients.

Pragma360 can be integrated with a bank's liquidity aggregation and market access while utilising the flexibility and customization of Pragma's technology. Clients can customise access to the exchanges, ATSs, ECNs and market-makers they want to source liquidity from. Pragma360 is fully compatible with a number of order and risk management systems.

Over the past 12 months, trading professionals have woken up to the execution mandate set by policymakers for a greater focus on efficient trading, price transparency and best execution by practitioners as well as regulators.

Additionally, meeting the latest regulatory requirements for Mifid II and the FX Global Code principals adds additional costs and presents greater demands on firms who chose to build execution algorithms in house.

Capabilities around an algo suite are required such as risk controls, real-time monitoring, transaction cost analysis coupled with numerous processes and policies that need to be strictly adhered to in order to build and maintain a complaint suite of execution algos. In short, building an in-house solution is not a viable option for all but the very largest banks and market participants. ■

> Pragma360 can be integrated with a bank's liquidity aggregation and market access while utilising the flexibility and customization of Pragma's technology.

COLLATERAL MANAGEMENT SOLUTION OF THE YEAR

SMARTSTREAM

SmartStream's TLM Collateral Management draws on 20+ years of development and industry research. This enables it to support firms ranging from large tier 1 sell-side firms to smaller buy-side firms in scope for phase 5 and 6 of the Uncleared Margin Rules (UMR).

With such a broad client base, it is a necessity for TLM Collateral Management to remain at the forefront of regulations and industry requirements. Supporting and partnering with many global and regional tier 1 banks has meant that TLM Collateral Management has grown with the industry. This is demonstrated through its best-practice workflows and feature-rich agreement repository, robust eligibility and concentration functionality, up and downstream connectivity through Public APIs and accessibility to key industry partners.

TLM Collateral Management features three exception-based workflows for practitioners to process their margin calls, interest payments and substitution events. Offering a single workflow to manage both Variation and Initial Margin calls, TLM Collateral Management alleviates much of the manual processing burden felt by firms through the automatic sending of margin notices, electronic messaging to and from clients and collateral auto-booking.

The straight-through-processing (STP) functionality of TLM Collateral Management allows for the bulk processing of many margin calls while still adhering to eligibility, concentration rules and validations defined across the system. The availability of 4 and 6-eye approvals throughout the workflows provide collateral managers additional confidence in bookings and mitigates the number of dispute cases. A complete audit of user actions within the system is maintained and easily accessible to maintain control and security over the collateral management operation.

With the need for a comprehensive collateral management product for firms of all sizes due to the UMR, it is critical that the application is both accessible and scalable. TLM Collateral Management meets the volume demanded by the industry's largest practitioners. ■

POST-TRADE SOLUTION OF THE YEAR

FIS GLOBAL

FIS Cleared Derivatives (FIS CD) offers the ability to manage the complete post-trade derivatives lifecycle within a fully modernised, scalable, resilient, integrated yet modular software.

The solution provides extended functional coverage and a unique opportunity to rationalise the whole post-trade ecosystem through FIS CD. The platform also allows clients to reduce costly integrations, create better workflow, increase automation and reveal valuable business data about the enterprise by applying machine learning to break identification and matching rules, and reducing manual processing.

FIS CD was created with dedicated built-in tools and services that serve as a centralised platform for inbound and outbound data, supporting scheduled, on-demand and streaming data services. With backward compatible formats, automated conversion tools and industry standard static data, FIS CD is deployed virtually, quickly and easily compared to other systems.

Most heritage systems were already straining under the constant growth of volumes; COVID-19 revealed they were much closer to the end of their useful life than previously thought. The future is unpredictable but will almost certainly require systems that can handle much higher volumes of trades.

FIS CD was designed for such a world. Based on a cloud-based framework that allows both horizontal and vertical scalability, FIS CD ensures firms can quickly adjust to surges in market volumes.

Whether managing a risky counterparty, signing a demanding client or simply meeting service level agreements in a high-volume day, FIS CD leaves the batch concept behind and automatically performs and delivers calculations in real-time as soon as an event happens, thus providing greater transparency, lowering risk and reducing time required when markets close.

Via modernised APIs for full interoperability and integration with clients' ecosystems, rules-based frameworks, automated static data updates, predictive analytics and intelligent workflow, users of FIS CD have unlocked increases in straight-through processing and reductions in manual activities. ■

OUTSOURCING SOLUTION OF THE YEAR

SIEPE

As a public cloud managed services and data analytics provider, designed specifically to address the technology needs of asset managers, Siepe has pioneered a new set of advanced performance analytics engine for the investment industry.

This is helping clients drive bottom-line growth for their customers while simultaneously managing costs to address increased margin pressure. By implementing a new analytics model, clients are now able to easily compare absolute and relative performance of investment decisions. This includes a performance calculation framework and management dashboard to calculate a daily estimated fund value and improve visibility and monitoring of analytical processes throughout the day.

Siepe's goal is to offer its clients transformative software and infrastructure technology that is scalable to accommodate growth. Its customisable software solutions enable affordable portfolio insights. The firm is creating operationally effective and efficient portfolio management through its portal, which provides clients and internal teams with true visibility into their portfolio. Siepe is focused on providing solutions to the market to improve fund performance, reduce risk and increase systematic security.

Siepe has been proved to be agile in times of market disruption, especially during the global pandemic, where buy-side firms' business operations and workflows were significantly impacted. The firm was able to provide its clients and prospective clients with efficient and consistent services, regardless of circumstances or location.

While the implementation process is normally accelerated if completed in-person, Siepe was able to onboard a client within hours, remotely, allowing the firm to quickly alleviate the potential risks of working in a remote environment with unreliable technology. This is because Siepe has the built-in tools needed to work remotely, and designed its platform in the public cloud to mitigate operational risks and maintain efficient workflows.

The introduction of a self-service, Dynamic Dashboard module, also has enabled Siepe's clients to have the ability to quickly create custom summaries and views of their business to react to the ever-changing investment landscape. ■

REGULATORY REPORTING SOLUTION OF THE YEAR

KAIZEN REPORTING

Kaizen Reporting has won the regulatory reporting category for the second time in as many years, reflecting its continued growth. Kaizen Reporting has doubled in staff numbers, client numbers and revenues over the past year despite the global pandemic largely thanks to demand for its automated quality assurance service, ReportShield Accuracy Testing.

Demand for the service is high because of the comprehensiveness of the testing it provides. It offers clients full visibility of the quality of their regulatory reporting. This is important as clients can then identify where their reporting is correct and where it is incorrect – something expected by regulators. Accuracy testing is also a legal requirement of Mifid II and an expectation within Article 9 of EMIR.

The automated, managed, quality assurance service works by applying multiple tests for every data field to comprehensively test for the accuracy of the trade and transaction data reported to regulators.

The service goes beyond the validations provided by Trade Repositories or Approved Reporting Mechanisms by thoroughly checking the information in every single data field. Firms receive a series of reports at the end of each test run (usually monthly or quarterly depending on trading volumes) with a list of errors, allowing them to remediate incorrect reports and alert the regulator to any issues.

Kaizen senior regulatory specialist David Nowell told Global Investor at the start of this year the end of the Brexit transition period could offer a "win-win" opportunity to simplify trade reporting.

He said: "There's potentially a win-win situation here, but it depends on the appetite for change and whether the UK will want to stay completely aligned with the EU for other political reasons."

"Everybody knows and accepts that it's the positions in exchange-traded derivatives that are important, nobody cares about the thousands and thousands of trades that have gone into those positions because they're essentially dead," Nowell said. ■

COMPLIANCE SOLUTION OF THE YEAR

QOMPLY

Qomply is a RegTech firm specialising in providing cloud-based solutions for transaction reporting. The ReportAssure Suite performs accuracy and completeness checks providing comfort in the assurance that transaction reporting systems are working correctly.

The ReportAssure modular design and flexible configuration sets it apart from its competitors as Qomply's technology puts compliance at the touch of a button.

In the past year, Qomply's accelerated growth has led it to be a recognised leader in delivering a flexible, client-centric application that is attractive across the spectrum of small-to-large sized investment firms. With the digital transformation and remote working being the theme, Qomply offered a collaborative platform that connected seamlessly to existing processes.

With the maturing of Mifid II transaction reporting introduced in 2018, regulators are expected to be less forgiving of issues now that firms have had time to bed-in their solutions and processes.

Mifid had come under intense scrutiny as it was accused of building a regulatory wall that only firms with large balance sheets could scale. With ReportAssure, a piece of that wall has been removed to pave way for firms to continue to thrive in the financial arena whilst meeting regulatory obligations.

Qomply's ethos of building affordable, efficient and collaborative working environments has been noted by the market response. In addition to the range of firms using ReportAssure, many regulatory consultancy firms are partnered with Qomply. This serves as testimony to the efficacy of the ReportAssure technology and Qomply's emergence as a key player in the arena.

The ReportAssure platform is crafted to respond to increasing levels of complexity of regulation, rules, and data analytics. Covering key transaction reporting regulations, such as Mifid, SFTR and EMIR, Qomply empowers firms to meet their regulatory obligations through technology. Smaller firms prefer to use the platform manually whilst larger firms prefer to connect programmatically to the platform to drive daily pre-reporting accuracy checks. ■

Euronext chief Boujnah reflects on "transformational" deal in post-Brexit Europe

Stéphane Boujnah, the CEO and Chairman of the Managing Board of Euronext, completed in late April the €4.4 billion (£3.2bn) acquisition of Borsa Italiana Group from the LSE Group.

By **Luke Jeffs**

The deal is by-far the largest in Euronext's history and transforms the exchange group from a respectable third in Europe behind the London Stock Exchange and Deutsche Boerse to a serious contender at the heart of the post-Brexit European Union.

Boujnah told Global Investor the Italian deal is huge for his firm.

"This transaction is transformational for Euronext. After this transaction, 25% of the equity traded in Europe is traded on Euronext, average daily volumes are approximately €12bn and 29 of the EuroStoxx 50 are listed on Euronext."

He is also keen to benchmark his new book against those of his main rivals. "The aggregate market capitalisations of the companies listed on Euronext is approximately €6.4 trillion compared to €2.1tn in Frankfurt and approximately €3.2tn in London. So the aggregate market capitalisation of Euronext markets is approximately twice the size of the London exchange and three times the size of the Frankfurt exchange."

Boujnah, who became head of Euronext in late 2015, can look back with some satisfaction at how far the group has progressed under his leadership.

"Following this transaction, Euronext has become extremely relevant. Euronext at the time of the IPO in June 2014 was a company with

> The integration programme is developing well through a strong dialogue with the various relevant regulators, including Bank of Italia and Consob in particular. We are building with the Borsa Italiana teams what will be the new strategic plan for the combined entity for 2022, 2023 and 2024.

a market cap of €1.4bn and it now has a market cap of €10-€11bn. But we have also become more relevant for clients and, in this respect, the integration of Borsa Italiana is progressing as planned."

But, of course, after the deal comes the all-important integration to deliver the savings and growth that convinced shareholders to back the deal in the first place.

Boujnah said: "The integration programme is developing well through a strong dialogue with the various relevant regulators, including Bank of Italia and Consob in particular. We are building with the Borsa Italiana teams what will be the new strategic plan for the combined entity for 2022, 2023 and 2024."

The Euronext boss was circumspect about the plan, insisting all will become clear at a planned strategy announcement on 8 November in Milan. But he did say the location of the announcement is telling, reflecting Italy's importance to the European group's future.

"The Borsa Italiana assets now represent a significant part of the Euronext group, approximately 34% of the top line, and therefore Borsa Italiana will be a significant component of the growth strategy for the group."

One change that has been announced, in fact as soon as Euronext completed the Borsa Italiana deal at the end of April, is that the main Euronext data centre is moving to Italy from the UK.

Boujnah said: "The first significant decision, which is in the process of being implemented, is the migration of the core data centre of the Euronext group from Basildon near London to Bergamo near Milan. This is a strategic decision."

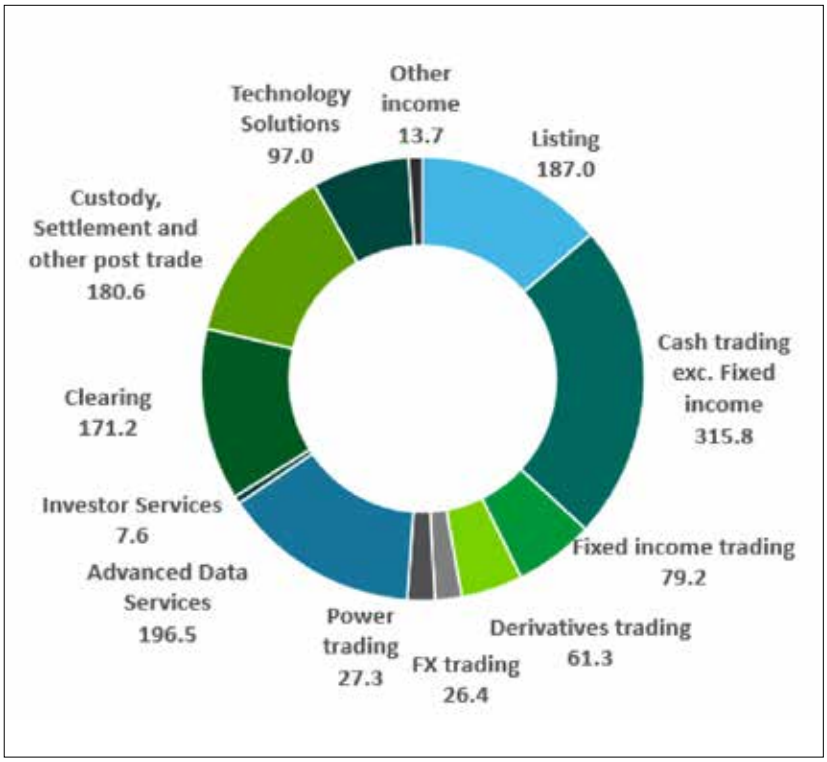
Anyone who has been to Basildon will understand the decision but Boujnah said it also reflects the changing dynamics of the European market linked to the UK's decision to leave the European Union.

"The core data centre of Euronext was established in Paris in 2000. It was migrated to London in 2011 when London was the largest financial centre in the EU. Post-Brexit, for operational and regulatory reasons, the decision was taken to keep the core data centre back within the European Union hence to move it to Bergamo," he said.

Boujnah said he is excited by the prospect of moving his data centre to and co-locating his main clients in Bergamo partly because that facility is among the new breed of green data centres powered by sustainable energy sources. He said the move to Bergamo will be finalised in the second quarter of next year

Boujnah said the Bergamo switch is part of broader plan to invest in and develop Borsa Italiana's various trading and post-trade assets.

He said: "We are also trying to support the growth of the Borsa Italiana business by supporting MTS



Euronext €1.4 billion Proforma revenue in 2020 Source: Euronext

to make sure their secondary trading solutions are being deployed to support transparency in secondary trading of the Next Generation EU bonds to be issued over the next four years by the EU Commission.

"We are looking at the development of Elite, which is a platform operated by the Borsa Italiana Group, to promote SME listings. We are exploring how this business can be deployed in the rest of the European continent and particularly in Euronext countries."

Through the Borsa Italiana trade, Euronext has also secured Italy's clearing and settlement houses, which fits with a theme at the group. Euronext acquired the Danish central securities depository (CSD) VP Securities late last year and Norway's VPS depository as part of Euronext's acquisition of Oslo Bors in 2019.

"We are also implementing a programme to make Monte Titoli, the Italian CSD, a leading part of what we call the Euronext of CSDs. We currently operate one CSD in Portugal, one CSD in Norway and one CSD in Denmark. With Monte Titoli, the total amount of assets under custody in those four companies is €6 trillion, so the Euronext of CSDs has become the third player in Europe after Euroclear and Clearstream."

Boujnah is nothing if not ambitious. He also wants to deploy a full suite of ESG projects at Borsa Italiana, the most visible of which will be the Italian MIB ESG Index to be launched in October.

And he has started talks with the Borsa Italiana management, regulators and supervisors about the transition of the Italian exchange's trading technology from the current LSE Millennium IT technology to the Euronext Optic trading platform, slated for 2023.

Boujnah said: "Euronext's commitment to Italy is massive. Whereas over the years, the LSE Group developed more in post-trade and data rather than in the Borsa Italiana core business lines, for us, Borsa Italiana represents 34% of the top line of the combined group and it is very much a focus for our strategic development.

Boujnah: "We are going to continue investing in Italy to strengthen the business of Borsa Italiana because we are extremely confident in the capability of the company to contribute to the growth of the combined entity".

"We are going to continue investing in Italy to strengthen the business of Borsa Italiana because we are extremely confident in the capability of the company to contribute to the growth of the combined entity."

Clearing the way

Perhaps most radical is Boujnah's thinking around clearing.

Euronext currently uses the French arm of LCH, part of the LSE Group, to clear its equity and derivatives trades, due to a merger between the London and Paris-based clearing houses in 2003 and the product of that merger being acquired by the London Stock Exchange in 2012.

Boujnah's current clearing deal with LCH was struck after his 2016 bid to buy LCH SA was effectively killed by the European Union's decision to block the merger between the LSE Group and Deutsche Boerse, a condition of which was the sale of the French clearer.

He said: "In 2016 the asset was for sale in the context of a remedy demanded by the European Commission to enable the attempted merger between Deutsche Boerse and the London Stock Exchange. We won the auction process and signed an agreement to acquire

> We are working on all alternatives in an agnostic manner but, from a strategic point-of-view, it would make sense to be like many other exchanges of decent size and be able to re-internalise clearing, which has been historically one of the main strategic priorities for the group.

LCH SA subject to the completion of the merger between Deutsche Boerse and the London Stock Exchange. For various reasons, this merger never completed so we were never in a position to acquire LCH SA.

Boujnah continued: "At that moment, Euronext entered into a partnership agreement with LCH SA to renew the existing relationship for the clearing of Euronext flows for 10 years until 2027."

Commenting on Euronext's relationship with LCH, the chief executive said: "This partnership is very structured and has many features including a profit-sharing agreement on Euronext derivative flows cleared by LCH SA, and a pre-emption right in the event that LCH would want to sell LCH SA. Euronext also has an 11.1% stake in LCH SA. It is a structured, long-term relationship."

But Boujnah is now thinking about an alternative arrangement.

"Two things have changed in recent months. First, there is the debate about clearing and specifically where it is located, above and beyond the debate about interest rate swaps. Second, Euronext acquired Borsa Italiana group and today we own 100% of CC&G. So, it is true that we are exploring the possibilities of migrating the Euronext flows to CC&G as an alternative to the client-supplier relationship we have today with LCH SA."

Boujnah added: "Euronext used to own its own clearing house, but since 2004 we have had a supplier-client relationship with LCH SA, so here we have an opportunity to consider internalising the Euronext flows."

The Euronext chief admits this is not a "business-as-usual" type decision and any determination will have to be taken in the context of all the other initiatives already listed by Boujnah.

"We are exploring what all those factors mean in terms of recurring operational expenses, capital expenses and revenues for the group. We are factoring in the financial benefits and parameters, the strategic parameters, the industrial parameters and the operational parameters. We are in the process of making that analysis.

"We also need to factor in the timing of the implementation of such a decision as we have also to implement the migration of the Core Data Centre."

He continued: "As with the data centre migration, this is a strategic decision and these types of decisions are not frequent so we will make a decision as soon as we are ready, though the sooner the better.

"We are working on all alternatives in an agnostic manner but, from a strategic point-of-view, it would make sense to be like many other exchanges of decent size and be able to re-internalise clearing, which has been historically one of the main strategic priorities for the group."

Brexit on my mind

Euronext's acquisition of Borsa Italiana from the British exchange cannot be divorced from the UK's decision to leave the European Union.

The British people voted to leave in 2016 and the UK officially left the European Union at the start of last year, but it is only relatively recently that trading patterns have started changing to reflect the new political landscape.

Boujnah said the first obvious sign of change was at the start of this year when London lost its crown as the share-trading capital of Europe.

"Everyone focused in January on the fact that equity trading in Amsterdam was bigger than equity trading in London, partly reflecting the fact that Cboe Europe and Turquoise had established their headquarters for trading European equities in Amsterdam. In reality, most of that trading in terms of operations and technology was still taking place in London.

"But what is happening now is different and more profound. When you look at listings, I am surprised at the number of international listings we get at Euronext Amsterdam and Euronext Paris, and to a lesser extent in Oslo."

Boujnah said that firms interested in listing their shares through an IPO are thinking differently than they did pre-Brexit.

"Two things have happened over the past few months. First, Brexit became so real that international companies that want to list in Europe have decided it is more convenient to be listed on a European venue than in London, because London is pursuing a project that is now diverging from its historical connection to the European Union. If you want to be listed in Europe, the incentive to choose London is less strong than it used to be.

He added: "The second point has to do with the corporate development of Euronext, namely that Euronext became the largest liquidity pool in Europe, where 25% of shares are traded on Euronext markets."

Boujnah said the combination of a larger Euronext after the Borsa Italiana merger and the London regulatory framework moving outside of the EU

has "created an opportunity for us in international listings".

And the numbers back him up. "We have already achieved this year more than 155 listings, which is a multiple of previous years. I am surprised by the number of non-Euronext country companies listing on Euronext, either in Paris or Amsterdam."

Boujnah said the UK is facing a choice between remaining aligned with its largest trading partner or positioning itself as an ultra-competitive deregulated alternative to Europe.

"Finance is affected like any other sector of the British economy by the fundamental question as posed by Brexit – does the UK stay close to the European Union on a selected group of issues to maintain proximity, which for the finance sector means equivalences, or does the UK try another route that is more autonomous with no equivalence access to the single market?"

The Euronext chief added: "That is true for everything about Brexit, and finance is not immune from that fundamental debate. For finance, either there is continuity of regulation, which will lead to continuity of operations and access to the EU, which is equivalence; or there is discontinuity of regulation which means a discontinuity of access to Europe. Like everything to do with Brexit, the answer is in London."

By contrast, the situation within the European Union is more certain. "One thing that isn't going to change is that there are 450 million people in the European Union with a very high standard of living and who need to do something with their savings," he said.

Boujnah added: "Similarly, there are more than 300 blue chip companies who need funding. The European bloc is trying to rebuild a group of open, integrated, interconnected finance centres to address those needs."

For Boujnah, we are now seeing the first signs of new, post-Brexit European marketplace: "What was normal when London was the largest financial centre of the European Union has now become an anomaly because those 450 million people and more than 300 blue chip companies cannot rely on an offshore platform to finance their growth, so we need to invent a different way of working together. The ways that things are being done are changing slowly."

And Euronext, as one of two large, European regulated exchanges, is well-positioned to benefit from these changes. "Something is happening. Either people are moving or they are hiring locally. Without Brexit, Paris, Amsterdam and Dublin would not be reactivated financial centres.

"But the UK left the European Union. I think we need to find ways to continue to benefit by building something new, something different but most of the decisions are going to take place in London."

While Boujnah will no doubt be a keen observer of the direction taken by UK regulators, for now, he has his hands full building with Borsa Italiana a new Euronext to meet the challenges posed by the changing European market. ■

Boujnah: "But the UK left the European Union. I think we need to find ways to continue to benefit by building something new, something different but most of the decisions are going to take place in London."

Provable Markets seeks to tackle information leakage

Matthew Cohen, the chief executive of start-up Provable Markets, explains to Luke Jeffs how the securities finance market could be on the brink of a fundamental change made possible by new technology.

Provable Markets emerged in July 2021 as an Approved Submitter for the proposed Securities Finance Transaction Clearing Service being developed by US post-trade giant the Depository Trust & Clearing Corporation.

As the second Approved Submitter after Broadridge, the New York-based fintech couldn't be more different from its vast predecessor, but Provable Markets has a clear plan to leverage new technology to deliver efficiencies in the underserved securities finance market.

The story begins for the company in early 2018, when sibling firm Provable Labs was founded by Thomer Gil, an MIT computer science graduate with a track record of successful start-ups. Inspired by research originally performed at Harvard University, Gil sought to apply a set of advanced cryptographic techniques collectively known as secrecy-preserving computation to counter information leakage in financial markets.

Co-Founder and CEO of Provable Markets, Matthew Cohen, was similarly looking to help address some of the inefficiencies he had encountered during his 15 years as a trader with Bank of America Merrill Lynch, Jefferies, and, latterly, Nomura. In early 2020 he was introduced to Gil through VC investor Anthemis, who, along with Inkef Capital, has been with Provable since its inception. That introduction was the start of Provable Markets, the commercial arm created to leverage Provable Labs' cryptographic technology directly in the financial industry.

The long-term goal of the Provable companies is to "be the financial equivalent of the S in HTTPS," according to Cohen. "Nobody in their right mind trusts web transactions unless they are encrypted. We envision a similar paradigm shift in finance: the application of powerful cryptographic techniques such as secrecy-preserving computation increases trust and removes friction, while efficiently supporting and enhancing the full range of complex functions in the market."

> "Preventing information leakage, or maintaining anonymity, is really at the core of our technology."

In its early days, Provable Labs leveraged its engineering talent to construct its first product, an equity block trading tool that uses Multi-Party Computation to provide provable secrecy and fairness.

Cohen told Global Investor: "When Thomer and I teamed up, we immediately started talking about the funding markets and securities lending. Whichever asset class you are talking about, information is shared whether it is in the financing space, cash trading, or elsewhere. Sometimes it is necessary to complete a trade, even though you might not want to share that information openly."

Cohen added: "Back in my time in the structured financing markets, we'd be building trades for big clients and would eventually have to fund it off our own balance sheet. An outsider with a view into what's being funded could quite confidently surmise that, 'Merrill is funding 10% of XYZ, and based on their history could narrow down possible clients'. The point being; this is just one example of the many layers of information leakage beyond the point of trade. This is what is so intriguing about our products: this technology can be applied at all levels of the market structure."

Jumping forward to the present: Provable Markets is now deploying technology to allow securities borrowers, lenders, and synthetic traders to trade more effectively. "Our long-term goal is to give traders - that currently sit on separate desks and have overlapping mandates - the ability to push a button, and say: I just want the best price, period. I don't care if it's swap, options, or cash SL. As long as it is executed and cleared in a comparably seamless process, then I

get the best execution and experience for myself and the team that supports me."

The chief executive feels that the recent disruptions linked to the March 2021 collapse of Archegos Capital Management, and prior to that, the GME/Reddit phenomena, have served to highlight the existing inefficiencies in the market. Provable Markets seeks to make the underlying markets more resilient to these problems in future.

Cohen understands this is a major undertaking. "It involves bringing together an ecosystem that is now entirely bifurcated. This means it is expensive, riddled with inefficiency, and has highly vulnerable operational risk points. However, this also creates opportunities for the right team to create a scalable workflow solution to an underserved corner of the market. In addition to our deep understanding and pragmatism around the application of cryptography beyond buzzwords, we think one of our core competitive advantages is our engineering team, which is led by Ruben de Vries, CTO of Provable Labs."

In addition to its engineering talent, Provable Markets is positioning itself as a regulated institutional-grade fintech. It is in the process of obtaining approval from FINRA and the Securities and Exchange Commission (SEC) in the US to operate an Alternative Trading System (ATS).

Cohen said: "Our view is that doing this for the institutional market requires being regulated. The regulators are going to do what they are going to do no matter what, so trying to shortcut that just brings problems later, both for ourselves and for our customers."

The Provable Markets chief cited as examples of creeping regulation Europe's Securities Financing Transactions Regulation and Central Securities Depositories Regulation, as well as an increase in focus on new or amended rule proposals from FINRA, the SEC, and the Commodity Futures Trading Commission into securities lending and swaps.

He added: "There is no rule that says a product built for participants cannot serve to support regulatory demands as well. As a regulated entity, and more specifically an ATS, if we can improve our customers' workflows and friction points, while also being thoughtful to support a stronger market structure, assisting in the regulators jobs of ensuring stability and fairness; we can tackle two problems at once."

The other moving part, of course, is the DTCC SFT Clearing Service, which must be live before Provable Markets can open.

Cohen said: "We are under no illusion that we are to come out of the gate sprinting. The fact is we are selling the DTCC and their SFT offering as much as we are selling our own. We are content with this dynamic because we genuinely believe in what the DTCC is doing, and the benefit their product brings to the market."

The Provable Markets chief said he and his team have been talking ahead of launch with about 80 firms "covering the whole gamut; from traditional players, to operationally blocked fringe use cases, and new smaller start up participants."

In August, the Firm hired Euronext's former head of US platform sales Halima Butt, as the firm's New York-based Head of Strategy and Sales.

Cohen hired in August Euronext's former head of US platform sales Halima Butt, pictured above, as the firm's New York-based head of strategy and sales.

He continued: "As to traction, we feel there is a good portion of the market out there that wants to be first movers, including one or two anchor lenders with meaningful assets to rest as a source of liquidity. Through our partnership with the DTCC participants get the ability to centrally clear and reduce exposure from 100 counterparties to one. This creates an immediate Risk-Weighted Asset (RWA) benefit, and significantly reduces operational burdens and risks. The day no longer starts with each participant's back office fixing breaks for two hours every morning."

He is also mindful that some firms will be resistant to a new securities finance platform. "There are certainly people that want the market to stay the same, and that's understandable. We feel we have a nice mix of participants who are like-minded and want to be first movers because they see the obvious benefits from various perspectives."

Cohen added: "The starting point for us will be getting those first movers on our platform, Aurora, getting some term trades or some chunky long-term positions novated over and helping the DTCC prove the concept. We don't think that will be hard, so long as we do our jobs well."

The chief executive believes cryptographic technology can be applied in other underserved markets beyond securities finance. "Advanced cryptographic techniques, such as secrecy-preserving computation, will have a bigger, more fundamental role to play in the market."

He added: "We are not looking to drastically change behaviour overnight, but in the medium and long term we want to do more than inch the market forward solely with improvements on existing processes. If there is a digital improvement we can deploy - great. If assisting in making traditional, analogue methods is more practical - also great. Doing this deliberately and successfully allows us to expand step by step, creating solutions for the market for years to come. ■

GLOBAL INVESTOR | ISF FOW

ISF Survey 2021

The International Securities Finance survey celebrates the greatest contributions from agent lenders and prime brokers as well as the vendors of technology and data services

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ISF Survey 2021

The International Securities Finance survey 2021 monitors how the world's top securities lenders and borrowers rate each other across different asset classes, regions and functions.

The main body of the study covers equities lending and borrowing, breaking the constituent companies down into two groups, with group one (G1) comprising the 15 largest players and group two (G2) representing mid-tier financing firms. The survey also covers fixed income lending as well as technology vendors and data firms.

The survey publishes the leading six firms based on their counterparties' rankings across the different categories so the entire lists are not included.

The survey includes both weighted and unweighted scores. Weighted scores take into account the importance that the individual respondents give to that particular category while the unweighted scores are based on each category being given equal importance. ■

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G1 EQUITY LENDERS:

BNY MELLON:

BNY Mellon came top in both the weighted and unweighted Group One equity lending categories overall for the third year running. In the weighted category, the US firm scored 553.53, which was down significantly on last year's 957.43. BNY Mellon also topped the overall unweighted category in 2021 with a score of 647 which was wdown on last year's 1,120, which itself was a big jump on the previous year.

The US banking Group also won the weighted and unweighted categories in the Americas with 247.47 and 283.33 respectively. BNY Mellon also came second in both versions of the EMEA survey with 200.69 in the weighted list and 241.50 in the unweighted section.

BNY Mellon was third in Asia based on the raw data and third in that region when the scores have been weighted. It was also top globally in the weighted and unweighted categories when rated by G1 borrowers, and claimed top spot in the Americas when rated by its largest clients.

> BNY Mellon came top in both categories overall for the third year running.

G1 LENDERS: GLOBAL
UNWEIGHTED

Rank		Score
1	BNY Mellon	647.00
2	Citi	536.25
3	HSBC Securities Services	480.58
4	RBC Investor & Treasury Services	329.00
5	State Street	196.75
6 =	Brown Brothers Harriman	187.00
6 =	eSecLending	187.00

G1 LENDERS: GLOBAL
WEIGHTED BY IMPORTANCE

Rank		Score
1	BNY Mellon	553.53
2	Citi	454.05
3	HSBC Securities Services	409.50
4	RBC Investor & Treasury Services	278.23
5	State Street	177.60
6	Brown Brothers Harriman	172.82

G1 LENDERS: AMERICAS
UNWEIGHTED

Rank		Score
1	BNY Mellon	283.33
2	RBC Investor & Treasury Services	156.83
3	HSBC Securities Services	152.67
4	Citi	143.00
5	State Street	92.25
6	Fidelity Agency Lending	68.33

G1 LENDERS: AMERICAS
WEIGHTED BY IMPORTANCE

Rank		Score
1	BNY Mellon	247.47
2	RBC Investor & Treasury Services	131.98
3	HSBC Securities Services	127.40
4	Citi	121.23
5	State Street	80.81
6	Fidelity Agency Lending	60.18

G1 LENDERS: EMEA
UNWEIGHTED

Rank		Score
1	Citi	251.58
2	BNY Mellon	241.50
3	HSBC Securities Services	174.58
4	RBC Investor & Treasury Services	154.83
5	Brown Brothers Harriman	75.33
6	eSecLending	70.00

G1 LENDERS: EMEA
WEIGHTED BY IMPORTANCE

Rank		Score
1	Citi	219.19
2	BNY Mellon	200.69
3	HSBC Securities Services	152.29
4	RBC Investor & Treasury Services	130.82
5	Brown Brothers Harriman	73.20
6	Credit Suisse Zurich	59.46

G1 LENDERS: ASIA-PACIFIC
UNWEIGHTED

Rank		Score
1	HSBC Securities Services	153.33
2	Citi	141.67
3	BNY Mellon	122.17
4	Brown Brothers Harriman	71.33
5	eSecLending	66.67
6	JPMorgan	60.50

G1 LENDERS: ASIA-PACIFIC
WEIGHTED BY IMPORTANCE

Rank		Score
1	HSBC Securities Services	129.81
2	Citi	113.63
3	BNY Mellon	105.36
4	Brown Brothers Harriman	63.33
5	JPMorgan	56.77
6	eSecLending	55.64

CITI:

The US bank was second in the global overall Group One lenders survey in both the unweighted and weighted lists. CitiGroup scored 536.25 in the unweighted survey, compared to 814.17 last year, and 454 in the weighted category, which was down on last year's 724.59.

The US bank was fourth in the listings for the Americas, first in EMEA, in both the weighted and unweighted surveys, and second in Asia Pacific. Citigroup was second overall when rated by its largest Group One borrowing clients, coming third in the Americas, first in EMEA and top in Asia Pacific.

HSBC SECURITIES SERVICES:

HSBC Securities Services followed last year's strong performance when it broke into the top six by coming third this year with a score of 480.6 in the unweighted section and 409.5 in the weighted list. HSBC was third in the Group One lenders list for EMEA where it scored 174.58 in the unweighted Group and 152.3 in the weighted table. The lender capitalised on its regional scope to finish top in Asia. HSBC Securities Services was

G1 LENDERS

Most Innovative

Rated by Group 1 Borrowers

BNY Mellon

HSBC Securities Services

G1 LENDERS RATED BY G1 BORROWERS: GLOBAL

UNWEIGHTED

Rank		Score
1	BNY Mellon	547.33
2	Citi	485.83
3	HSBC Securities Services	405.33
4	RBC Investor & Treasury Services	233.00
5	Brown Brothers Harriman	187.00
6	eSecLending	166.33

G1 LENDERS RATED BY G1 BORROWERS: GLOBAL

WEIGHTED BY IMPORTANCE

Rank		Score
1	BNY Mellon	469.70
2	Citi	409.35
3	HSBC Securities Services	341.46
4	RBC Investor & Treasury Services	198.52
5	Brown Brothers Harriman	172.82
6	eSecLending	136.99

G1 LENDERS RATED BY G1 BORROWERS: AMERICAS

UNWEIGHTED

Rank		Score
1	BNY Mellon	239.67
2	RBC Investor & Treasury Services	144.33
3	Citi	143.00
4	HSBC Securities Services	138.67
5	Fidelity Agency Lending	68.33
6	State Street	55.67

G1 LENDERS RATED BY G1 BORROWERS: AMERICAS

WEIGHTED BY IMPORTANCE

Rank		Score
1	BNY Mellon	210.03
2	RBC Investor & Treasury Services	124.65
3	Citi	121.23
4	HSBC Securities Services	115.42
5	Fidelity Agency Lending	60.18
6	State Street	48.54

G1 LENDERS RATED BY G1 BORROWERS: EMEA

UNWEIGHTED

Rank		Score
1	Citi	205.50
2	BNY Mellon	200.33
3	HSBC Securities Services	136.00
4	RBC Investor & Treasury Services	88.67
5	Brown Brothers Harriman	75.33
6	eSecLending	58.67

G1 LENDERS RATED BY G1 BORROWERS: EMEA

WEIGHTED BY IMPORTANCE

Rank		Score
1	Citi	178.21
2	BNY Mellon	165.91
3	HSBC Securities Services	115.50
4	RBC Investor & Treasury Services	73.87
5	Brown Brothers Harriman	73.20
6	eSecLending	48.39

G1 LENDERS RATED BY G1 BORROWERS: ASIA-PACIFIC

UNWEIGHTED

Rank		Score
1	Citi	137.33
2	HSBC Securities Services	130.67
3	BNY Mellon	107.33
4	Brown Brothers Harriman	71.33
5	eSecLending	66.67
6	JPMorgan	56.00

G1 LENDERS RATED BY G1 BORROWERS: ASIA-PACIFIC

WEIGHTED BY IMPORTANCE

Rank		Score
1	HSBC Securities Services	110.54
2	Citi	109.91
3	BNY Mellon	93.76
4	Brown Brothers Harriman	63.33
5	eSecLending	55.64
6	JPMorgan	54.04

G1 EQUITY LENDERS

G1 LENDERS RATED BY G2 BORROWERS: GLOBAL
UNWEIGHTED

Rank		Score
1	BNY Mellon	99.67
2	RBC Investor & Treasury Services	96.00
3	HSBC Securities Services	75.25
4	State Street	61.08
5	Blackrock	54.67
6	Citi	50.42

G1 LENDERS RATED BY G2 BORROWERS: GLOBAL
WEIGHTED BY IMPORTANCE

Rank		Score
1	BNY Mellon	83.83
2	RBC Investor & Treasury Services	79.71
3	HSBC Securities Services	68.04
4	State Street	53.24
5	Blackrock	51.15
6	Citi	44.70

G1 LENDERS RATED BY G2 BORROWERS: AMERICAS
UNWEIGHTED

Rank		Score
1	BNY Mellon	43.67
2	State Street	36.58
3	Blackrock	34.17
4	HSBC Securities Services	14.00
5	RBC Investor & Treasury Services	12.50
6	BNP Paribas Sec Services Agency Lending	10.50

G1 LENDERS RATED BY G2 BORROWERS: AMERICAS
WEIGHTED BY IMPORTANCE

Rank		Score
1	BNY Mellon	37.44
2	State Street	32.27
3	Blackrock	30.56
4	HSBC Securities Services	11.98
5	JPMorgan	10.29
6	BNP Paribas Sec Services Agency Lending	8.99

G1 LENDERS RATED BY G2 BORROWERS: EMEA
UNWEIGHTED

Rank		Score
1	RBC Investor & Treasury Services	66.17
2	Citi	46.08
3	BNY Mellon	41.17
4	HSBC Securities Services	38.58
5	BNP Paribas Sec Services Agency Lending	34.00
6	State Street	24.50

G1 LENDERS RATED BY G2 BORROWERS: EMEA
WEIGHTED BY IMPORTANCE

Rank		Score
1	RBC Investor & Treasury Services	56.95
2	Citi	40.98
3	HSBC Securities Services	36.79
4	BNY Mellon	34.78
5	BNP Paribas Sec Services Agency Lending	28.98
6	State Street	20.96

G1 LENDERS RATED BY G2 BORROWERS: ASIA-PACIFIC
UNWEIGHTED

Rank		Score
1	HSBC Securities Services	22.67
2	Deutsche Agency Lending	19.50
3	RBC Investor & Treasury Services	17.33
4	BNY Mellon	14.83
5	Northern Trust	9.00
6	Credit Suisse Zurich	5.83

G1 LENDERS RATED BY G2 BORROWERS: ASIA-PACIFIC
WEIGHTED BY IMPORTANCE

Rank		Score
1	HSBC Securities Services	19.27
2	Deutsche Agency Lending	17.09
3	RBC Investor & Treasury Services	15.42
4	BNY Mellon	11.61
5	Northern Trust	8.56
6	Credit Suisse Zurich	5.46

third globally when assessed by G1 borrowers, which reflected strong regional performance. HSBC was fourth in the Americas, third in EMEA, when ranked by large borrowers, and second in Asia Pacific.

RBC INVESTOR & TREASURY SERVICES:

The Canadian lender came fourth in the global overall category for the third year running. RBC Investor & Treasury Services scored 329 in the unweighted survey and 278.2 in the weighted list, which were down on last year's 534 and 457.42 respectively.

RBC came second in both the unweighted and weighted categories in the Americas with scores of 156.83 and 132 and fourth in EMEA with scores of 154.8 and 130.8.

RBC Investor & Treasury Services was fourth globally among the large lenders when rated by Group One borrowers. The bank scored 233 in the unweighted category overall and 198.5 in the weighted section. RBC Investor & Treasury Services also came second in the Americas and fourth in EMEA when ranked by its largest Group One borrowing clients.

G1 LENDERS

Most Innovative
Rated by Group 2 Borrowers
BNY Mellon
HSBC Securities Services

STATE STREET:
The US bank scored 196.7 in the global overall unweighted list, which was down from 953.67 last year. In the weighted global overall section, State Street came fifth with a score of 177.6, a reduction on its total in 2020 when it scored 835.77.

State Street was fifth in the unweighted and weighted categories for the Americas. The US Group was also sixth in the weighted and unweighted lists when ranked by its largest Group One lenders in the Americas. When rated by smaller clients, State Street was also fourth globally, second in the Americas and sixth in EMEA.

BROWN BROTHERS HARRIMAN:
The US custody bank broker into the global top six with a weighted score of 172.8 and an unweighted score of 187, which put it level with eSecLending.

The US firm came fifth in EMEA with a weighted score of 73.2 and an unweighted score of 75.3.

BBH was fifth globally when rated by its largest customers, with a weighted score of 172.8 and an unweighted score of 187. The firm was fifth in EMEA with a weighted score of 73.2 and an unweighted score of 75.3.

The bank maintained its place in the Asia Pacific Group One lenders rated by Group One borrowers survey where it finished fourth this year. Its scores were mixed also, down to 63.33 in the unweighted Group from 67.33 last year and up slightly to 71.33 in the weighted section from 61.09 in 2020.

ESECLENDING:
The lending specialist broke in to the top six for the global unweighted list with a score of 187, which put it joint sixth with Brown Brothers Harriman.

The firm was sixth in EMEA in the unweighted list, fifth in Asia when unweighted and sixth in Asia using a weighted measure. It was also sixth globally and in EMEA, and fifth in Asia when rated by its largest clients.

FIDELITY AGENCY LENDING:
The agency lending arm of the US asset management giant came sixth in the Americas among Group One lenders, with a weighted score of 60.18 and an unweighted score of 68.33. It was fifth in the Americas when rated by its largest borrowers with a weighted score of 60.18 and an unweighted score of 68.33.

CREDIT SUISSE ZURICH:
Credit Suisse Zurich broke into the Group One EMEA lenders top six by finishing sixth with a weighted total of 59.46. It was also sixth in Asia when rated by its smaller customers with an unweighted score of 5.83 and a weighted score of 5.46.

JP MORGAN:
The US bank maintained its position in the top six in Asia Pacific where it finished sixth with an unweighted score of 60.50 and fifth with a weighted tally of 56.77. JP Morgan was also ranked sixth in Asia Pacific by Group One borrowers who gave the bank scores of 56 in the unweighted Group and 54 in the weighted survey.

BLACKROCK:
BlackRock was fifth globally when rated by Group Two borrowers with an unweighted score of 54.67 and weighted score of 51.15. The money manager also did well in the Americas when rated by Group Two borrowers where it came third with an unweighted score of 34.17 and weighted total of 30.56.

BNP PARIBAS SECURITIES SERVICES AGENCY LENDING:
The lending arm of the French custodian came fifth in the Group One lenders rated by Group Two borrowers in EMEA category with a weighted score of 28.98 and an unweighted score of 34. The French lender also made the top six of the biggest lenders rated by their smallest borrowers in the Americas where it had a weighted score of 8.99 and an unweighted score of 10.50.

DEUTSCHE AGENCY LENDING:
Deutsche Agency Lending came second in the Group One lenders rated by Group Two borrowers in Asia with a weighted score of 17.1 and an unweighted score of 19.50.

NORTHERN TRUST:
The US bank came fifth in the Group One lenders rated by Group Two borrowers in Asia with a weighted score of 8.56 and an unweighted score of 9. ■

Q&A with Bill Kelly

Bill Kelly, global head of agency securities finance at BNY Mellon considers how the securities lending industry is handling the growing emphasis placed by clients and regulators on ESG. In addition, he looks at the latest progress on central clearing and examines what potential growing retail trading volumes and wealth management portfolios can provide to the sector.

Could the growing importance of ESG curtail securities lending programmes?

Potentially, but it need not. I firmly believe that the contribution of securities lending to making markets around the world function more efficiently will continue alongside the growing emphasis placed on ESG by clients, and the range of principles and rules covering ESG that are being developed across different regulatory jurisdictions.

Securities lending plays an important role in the functioning of capital markets more broadly and is certainly able to co-exist with ESG investment strategies, enabling clients to both continue to earn additional income and align with their ESG principles.

Success will be judged in terms of supporting clients with increased transparency around collateral, more visibility around the investment of cash received as collateral and utilizing market information to permit clients the opportunity to make informed decisions between voting a proxy and continuing to lend.

The speed and extent to which ESG will be incorporated into securities lending programmes is likely to vary geographically, given the different stages the conversation is at in different locations and the varying role played by regulators around the world.

In some regions, regulation already includes specific references to ESG. The EU's Taxonomy Regulation and Sustainable Finance Disclosure Regulation (SFDR) provides a regulatory framework for validating the impact of investor behaviour, prescribing specific rules for the type of sustainability-related information that participants must disclose.

How far can or should the industry anticipate the direction of regulatory reform around ESG?

The industry is today quite familiar with the process of preparing for and then assimilating regulatory change, which can be traced back to the Financial Stability Board's early recommendations in the wake of the global financial crisis.

The industry has learned it has a responsibility to get ahead of regulatory deadlines. A great example is next July, the revised date for compliance with the European Commission's SFDR Level 2 measure, which requires the industry to build compliant frameworks and systems in advance.

For their part, regulators recognise they must provide a workable framework in which asset managers and beneficial owners can demonstrate stewardship while lending securities in a considered manner.

Besides Europe, regulators in Asia and North America are making their own progress on this subject. The industry has always been familiar with a degree of variation in regulatory principles and when it comes to ESG, it is incumbent on the industry to assimilate this variation into its solutions. I, for one, am confident we will be able to achieve this.

Is standardisation the only challenge to increasing the role of ESG in securities lending or just the main one?

It is true that standardisation is going to be vital in order to progress in

> "The speed and extent to which ESG will be incorporated into securities lending programmes is likely to vary geographically, given the different stages the conversation is at in different locations."

these efforts. Participants will rely on both regulators and industry bodies while aligning standards with their own principles.

Looking across our client population, I would observe that they are not all moving in a single direction. A number of leading asset owners and asset managers have used the UN's Principles for Responsible Investment as their guide. Standardisation remains elusive, however, in part because individual participants are expressing a range of preferences and priorities when it comes to ESG.

With respect to ESG scoring, focus has turned to the vendors on whom participants rely to provide the component data. Variations in vendors' methodologies mean variations in the client information that must be considered. Much of our focus is on understanding the underlying methodology in which that information is provided by vendors and how it can be consumed by clients. Clearly, ESG ratings need to be reliable, transparent and comparable to be useful.

Standardisation isn't the only challenge ahead of us, however. Plenty of work needs to be done independently of this to produce a workable framework. When it comes to acceptable forms of collateral from an ESG perspective, progress will be made by considering the highest common denominator across regulatory regimes and investor preferences. This calculus could differ between those transactions collateralised with cash and those collateralised with securities.

Currently, efforts are focused on building workable solutions that can achieve real-world ESG outcomes for securities lending programmes. As these take shape, providers are keenly aware of the fact that the more bespoke ESG frameworks become the more they erode the benefits of scale, increase fragmentation in programmes, reduce supply, impact utilisation and inhibit the sector's ability to contribute to efficient markets, with an inevitable adverse impact on market liquidity.

> "The G30 report on the US Treasury market issued in July of this year highlighted central clearing of Treasury repo as a recommendation to improve that market. That is probably where regulators will begin in any efforts to expand central clearing in the financing markets."

But the industry is well on its way to forging the principles that can underpin an efficient operating model. This will provide transparency for boards and senior management teams at participating companies, to demonstrate that securities lending programmes fully integrate their desired ESG principles.

What specific challenges does the greater appetite for proxy voting pose?

Clearly proxy voting is attracting a great deal of attention from asset owners and asset managers. The goal is to balance the opportunities that exist to earn alpha from a securities lending program with the pressing need for clients to exert and demonstrate responsible stewardship. Our role is to provide the data and tools necessary to assist clients in making informed decisions that will help them achieve that balance. We are working to develop the toolset to support that decision-making process so that it is similar to the process of investment decision-making.

There are range of scenarios that need to be considered. Take the case of an impending AGM with nothing controversial in the agenda, where most votes are likely to go with the management and only a small proportion of the company's stock is out on loan. Here, it is unlikely that a beneficial owner will need to vote all shares, if, for example, the investee company is already embedding ESG goals, making progress towards those ambitions and is able to evidence its positive ESG transition trajectory. The better informed that asset managers are when it comes to details like this, the better they can evaluate their decisions to retain the alpha-generating advantages of keeping securities on loan, where they need not be recalled to facilitate voting.

What progress is the industry making towards central clearing for securities lending transactions?

A lot of energy is being devoted to finding the right model for clearing securities lending trades, following in the path of previous central clearing initiatives. This is important because central clearing could become the most important distribution channel for the future growth of securities lending for beneficial owners. It's needed from an industry perspective to allow our industry to grow and add capacity.

The challenge is to develop a model that is buy-side friendly, makes economic sense for all participants, and is easy to adopt. A first step may be in the proposed expansion of FICC SMP program to the equity asset class through NSCC. However, equity volatility will mean higher costs of clearing in comparison to FICC. We need to continue to innovate around central

> "In both the retail flow and the wealth management example, financial technology firms are shaping up to provide a vital role in releasing assets."

clearing as an industry to help drive the development of new models and client adoption.

What role is there for regulatory guidance here?

What regulatory guidance we see as these efforts develop will be interesting. The lead from regulators was highly prescriptive for derivatives; so far, for securities lending it has been less prescriptive. It may be that in time the regulators will shift to more direct guidance if they see mandatory clearing as a more effective way to achieve the goal of a more secure sector.

The G30 report on the US Treasury market issued in July of this year highlighted central clearing of Treasury repo as a recommendation to improve that market. That is probably where regulators will begin in any efforts to expand central clearing in the financing markets.

Where is the low hanging fruit when it comes to releasing stranded assets?

Taking a wide definition of stranded assets, I would point to two emerging pools of assets that could be mobilised or monetised as part of securities lending programmes in greater quantities.

The first follows from the growth of retail trading, which has increased the focus on the role – either potential or realised - of securities lending programmes in generating revenue for the brokers that service retail clients. In many cases, the direct beneficiaries of the recent meme stock trading surges have been those companies that were clearing for retail clients, who were able to lend out collateral against option trading activity.

Secondly, I think that the wealth management industry provides a significant untapped resource.

Can you explain the role that fintech can provide here?

In both the retail flow and the wealth management example, financial technology firms are shaping up to provide a vital role in releasing assets.

In the case of portfolios held by HNWIs or through family offices, it may be that a classic agency model could work. But one challenge is the relatively small size of typical wealth management portfolios, even for major HNWIs. To an individual, a portfolio size of $20m or $40m is clearly very large; to an institutional counterparty facing a disclosed agent model, it isn't. For a borrower, considerable work is required to establish the creditworthiness of a counterparty as they will face that entity as a principal.

The industry is trying to solve this. Fintech firms are offering solutions, in conjunction with agents. One solution would be to allow the intermediary bank or broker to act itself as counterparty for higher value or higher spread trades, sharing some of the economic benefit with the end client in exchange for this service. Otherwise known as a "fully paid" securities lending program.

Fintech companies are not the only ones exploring how to unlock these trapped asset pools; different companies in the space can bring a range of opportunities to their clients. We are excited at what solutions we will be able to provide our wealth management arm through our multiple distribution channels. There are considerable untapped opportunities that we are working hard to extract.

What prospects do you see for the adoption of broader collateral sets?

Beyond assets that are trapped in the above examples, another area where the industry is working hard to extend its coverage is in the range of acceptable collateral. In particular, we are seeing a broader range of equities and equity indices, ETFs, SPACS as well as the inclusion of convertible bonds and ETFs.

When considering what could qualify for inclusion, keep in mind that the key tenet for any agent is diversification to manage risk. So the broad features of a collateral set are more important than the inclusion or exclusion of a specific security. Effective diversification is achieved by formulating workable rules across the collateral set covering features such as concentration limits, minimum capital requirements and minimum share price levels.

What this results in is well-considered, thoroughly stress-tested collateral sets that can survive with minimal impact during market turmoil.

In theory, any security for which there is a liquid market, could receive consideration. The agents providing indemnification need to be comfortable with the associated risks and this means thoroughly familiarising themselves with how an otherwise unfamiliar asset will behave. However, they are well placed to do this; it's a service they can provide to asset owners who lack the resources necessary to explore all collateral options. That is what clients expect their agents to provide throughout the securities lending process, helping them generate alpha while managing the associated risks. ■

Moving up the strategic value chain


Bimal Kadikar, founder and CEO and **BJ Marcoullier,** head of sales at Transcend discuss how the role of technology within collateralised businesses has evolved over the past 20 years and what future technological capabilities will look like.

The capital markets value chain consists of an intricate ecosystem of activities conducted between various groups within a firm as well as across several external market participants. With the volume of these activities increasing alongside a growing network of market players, the last 20 years has seen an accelerated investment in technology to alleviate the growing complexities.

Perhaps no market better evidences this evolution than that of electronic trading for Equities, FX and liquid Fixed Income securities Large increases in trading volumes, federated trading venues, regulatory requirements, and diverse market participants necessitated the automation of trading processes, including market making, sales, transaction booking, and clearance and settlement. Electronic trading platforms have evolved to the point where now millions of trades are executed daily using technology that streamlines the distribution of asset prices, adjusts offers, books trades, reconciles transactions, and updates risk limits. As a result, front-office professionals have redirected their focus to higher-order priorities such as market focus, pricing strategy, and risk mitigation.

A similar evolution is occurring within the collateral markets. 20 years ago, collateral technology played a supporting role by automating more routine tasks, such as identifying margin requirements and creating workflows with clients to track and exchange margin often specialized by asset class. However, the technological capabilities of collateralized businesses are increasingly moving up the strategic value chain to intelligently automate daily decisions, providing benefits beyond operational efficiency.

Why Now?

The financial credit crisis of 2008 and subsequent regulatory forces have pushed financial firms to significantly improve their collateral and liquidity tracking and reporting requirements. More recently, coming out of COVID-19, firms recognize the criticality of digitization and automation more than ever before. With ongoing market volatility, front-office and operations resources have struggled to satisfy increased collateral requirements resulting from high frequency margin calls and its impact on overall funding and liquidity positions. Because technology has progressed in recent years to support the integration of real-time data into automated workflows, firms leveraged technology to automate some daily margin and collateral decisions. While these capabilities may have been around for a few years, COVID-19 has created the urgency firms needed to prioritize implementations of smart technology. Now, many firms have systematized key collateral activities including determining the best funding transactions, providing attractive pricing to clients when their transactions create efficiency, pledging collateral across a diverse set of obligations, and ensuring that costs are correctly allocated to the businesses based on funding that encourages accretive business.

A Pivotal Shift

Technology is increasingly transitioning knowledge previously held within various departments of a firm into algorithmic intelligence. This stage of technological evolution is pivotal and provides firms with a scalable solution that not only supports a dynamic, high-volume collateral ecosystem, but can also directly impact business profitability. For example, Transcend's collateral optimization solution overlays sophisticated algorithms and rulesets on top of real-time inventory and obligation data, empowering firms to not only identify the most economically efficient collateral to pledge, but also automate multiple collateral instructions and moves across systems and jurisdictions.. Now, securities finance and operations personnel are shifting their focus from important but manual collateral and trading decisions to transformational strategies for the desk and overall business.

Looking Ahead

As the market continues to rapidly change, technology and data will continually evolve to keep up. What firms now realize is that the static technology built decades ago was not designed to adapt to new requirements and cannot easily pivot to solve modern challenges. For example, in the last five years alone, the types of financial assets have exploded with digital assets gaining traction. The evolution to fully digital assets will be a long journey and the dual world of current securities and digital assets will coexist for a foreseeable future. Another key trend is the focus on ESG which will impact the collateral platforms significantly as the trading, financing and collateral requirements dictating various ESG criteria increase. These forces will mandate firms to think through their collateral and liquidity ecosystem in a strategic manner. It is very clear that as the rate of technological and market change accelerates, future-generation technology must be flexible and innovative to adapt to requirements.

We at Transcend are passionate about the future prospect of the industry and are working with our clients to shape this evolution. With more than 120 people constantly developing cutting-edge solutions, our technology is being refreshed faster and more cost-efficiently than any home-grown and legacy solutions. ■

Securities lending from a European funds perspective

Joanna Ksenzova, associate director and **Don D'Eramo,** managing director and head of securities finance at RBC Investor & Treasury Services (I&TS) explore the key issues around securities lending from a European funds perspective.

Over the last few years, European funds have increased their focus on gaining a deeper understanding of their securities lending programmes. One of the main drivers for this trend is regulatory compliance, but these funds are also looking to better align lending with portfolio and risk management approaches, evolving investor demands, and – importantly - ESG strategy.

In addition, market volatility caused by the pandemic has made such engagement and understanding even more vital and requires a high degree of client contact to ensure they are kept up to date with market developments and the operation of their programmes.

Due to the high touch point engagement during pandemic, the majority of funds were retained in securities lending and additionally brought in more assets in a measured way, which showed confidence in the product and industry in general. We are witnessing more asset managers who did not have a securities lending programme at that time beginning to incorporate securities lending and Securities Financing Transactions Regulation (SFTR) related wording in their prospectuses, continuing to evaluate business cases, and increasing dialogue with their investors.

Looking specifically at UCITS funds from a lending perspective, it is clear that securities lending can help these funds increase their performance and also contribute to market efficiency and enhanced liquidity. "The more funds that are enrolled, the greater the positive impact on the fund industry in terms of meeting deadlines and avoiding unnecessary penalties or buy-ins," says Joanna Ksenzova, Associate Director, RBC I&TS.

There are highly prescriptive regulatory regimes applicable to UCITS funds. These include collateral rules in relation to acceptable instruments, correlation, concentration, diversification and other parameters as well as limitation of reinvestment and pledge. In some cases, there might be an additional need for stress testing of collateral.

"The agent lender has to consider all these rules when it comes to meeting market demand," says Ksenzova. "In addition, there are other disclosure and reporting requirements, oversight and controls applicable to these types of funds which require agent assistance."

It is therefore advantageous to work with lending agents, custodians and depositories who are familiar with UCITS parameters.

"We spend a lot of time ensuring all these requirements are met and particularly that if services such as stress testing of collateral are required, that these capabilities are bundled with the mandate from a UCITS perspective," explains managing director and head of securities finance at RBC I&TS, Don D'Eramo.

"There is a sound rationale for the regulatory environment, so our job is to balance mandates that we can tailor for this segment versus what that fund can actually achieve," he adds. "We therefore find ourselves engaging in a very proactive way to ensure that information is available, so data and technology capabilities are key requirements."

ESG is a hot topic in the securities lending space and according to the RBC I&TS 2021 Asset and Wealth Manager Survey, ESG investing appears to be a more advanced discussion in the UK/European market. Ksenzova observes that one of the key considerations from a client perspective is corporate governance.

"Corporate governance varies in terms of funds policy and although proxy voting is not new, increased demand, volumes and tailoring creates the need for better automation and flexibility," she says.

"We have not yet seen massive demand for aligning collateral policy

with investment policy of ESG-focused funds, although some discussions have taken place. Our indemnified collateral programme offers collateral profiles applicable to different regulatory regimes and risk appetite (such as UCITS), with the possibility of exclusion based on different criteria."

Lending impact on the market and other participants is the other area where clients want to have more transparency.

When there is a need to interact or monitor lending activity, clients are keen to understand the various drivers behind borrower demand and how it impacts both negatively and positively.

"At the end, there is always an impact on the market - when the decision is not to lend, this impacts liquidity and performance," explains Ksenzova. "We try to understand market behaviour, for example around themes such as sanctions, taxation, distressed stocks or illiquid stocks, to ensure and promote good practice."

The discussion around ESG continues to evolve, notes D'Eramo. "One of the key tenets of our agent programme is the ability to tailor it to client objectives and it is evident that ESG strategies vary from client to client," he says.

"We have enhanced our proxy capabilities to a point where clients are not just looking to make a decision on discretionary events but also events that have an impact given their own policies; they may approach this by restricting availability. We are looking to be more proactive with securities lending data to help clients make those decisions."

The discussion around whether ESG compliance means funds should not be lending their securities and the perception of securities lending that it somehow equates to short selling continue to be the subject of much conjecture.

"This is where enhanced connectivity and education are absolutely vital to ensure that we are talking about facts and the reality of how securities lending could improve liquidity, which is a positive development," says D'Eramo.

> "Via transparency, education and engagement, we can ensure that investors make more informed decisions."
>
> **Joanna Ksenzova,** associate director RBC & ITS

"Securities lending via short selling could be a positive for an ESG outcome," he adds. "I think finding that balance is the discussion that we have had and continue to have in the European market around that intersect between lending and ESG topics."

There is also recognition that ESG is evolving and may not be the same across all stakeholders. For this reason, agent lender engagement with industry bodies is paramount to continue the discussion on the educational front and also on where ESG can migrate to within the securities lending and finance space.

"We have seen examples where there is a very determined view - for example, that if you are an ESG fund you should not be lending," says D'Eramo. "However, we have also seen clients launching ESG funds with active oversight and ensure they communicate that the type of mandate they want to be deployed can work within securities lending."

In light of the above, it is pertinent to discuss potential obstacles on the funds side to joining securities lending programmes.

"One of the concerns which is arising more regularly in Europe is the situation where fund managers, management companies and investors see lending fitting into their strategy, but there are some investors who have the perception of lending being different," says Ksenzova.

"While this perception is not based on the current funds experience with the securities lending product, when some funds are focused on broad, global and – perhaps most importantly - quick distribution, they may look to consider and balance all of their investors' concerns."

In that environment it is clear that together with the funds, agent lenders need to highlight the benefits of lending via broadly recognised agents and point out both investors and funds have control of their programmes.

"To help our clients and prospects, we have increased engagement and provided them with expertise such as thought leadership and other important sources of information," adds Ksenzova. "Via transparency, education and engagement, we can ensure that investors make more informed decisions."

The trade-off between a fund participating and underlying investors having views and those views impacting the decision on participating or not is an important one, says D'Eramo.

"Although we have been talking about education for many years now, as regulations continue to shape the broader financing and investment industry, it is clear that you can never have enough transparency or engagement," he adds.

"I think how that is transposing itself for us is a greater ability to give clients the data they need to make those decisions. The route to market sometimes becomes the topic as opposed to whether you enter or not. Can you give the underlying funds enough information and data points to enter when they want to, as an example, whether it is as specials only, or fixed income only, if it is a financing mandate, or a general programme?"

"Continuing to educate correlates to the data strategy we continue to evolve to ensure clients have that information and empowering them to make their decision based on facts rather than market perceptions," he concludes. ■

Aviva improved on last year's fifth by coming top of the Group Two lenders list

G2 LENDERS: GLOBAL
UNWEIGHTED

Rank		Score
1	Aviva	208.17
2	Sumitomo Mitsui	194.00
3	NBC Global Finance	193.33

G2 LENDERS: GLOBAL
WEIGHTED BY IMPORTANCE

Rank		Score
1	Aviva	183.26
2	Sumitomo Mitsui	166.65
3	NBC Global Finance	164.34

G2 LENDERS: AMERICAS
UNWEIGHTED

Rank		Score
1	NBC Global Finance	168.83
2	MUFG Investor Services	107.17
3	Sumitomo Mitsui	79.67

G2 LENDERS: AMERICAS
WEIGHTED BY IMPORTANCE

Rank		Score
1	NBC Global Finance	143.37
2	MUFG Investor Services	91.53
3	Sumitomo Mitsui	70.41

G2 LENDERS: EMEA
UNWEIGHTED

Rank		Score
1	Aviva	208.17
2	Nordea	160.83
3	CACEIS Bank	148.50

G2 LENDERS: EMEA
WEIGHTED BY IMPORTANCE

Rank		Score
1	Aviva	183.26
2	Nordea	135.96
3	CACEIS Bank	127.51

G2 LENDERS: ASIA-PACIFIC
UNWEIGHTED

Rank		Score
1	MUFG Investor Services	49.00
2	BNP Paribas Sec Services Principal Lending	22.33
3	Amundi	22.17

G2 LENDERS: ASIA-PACIFIC
WEIGHTED BY IMPORTANCE

Rank		Score
1	MUFG Investor Services	41.93
2	Amundi	19.08
3	BNP Paribas Sec Services Principal Lending	18.99

G2 LENDERS RATED BY G1 BORROWERS: GLOBAL
UNWEIGHTED

Rank		Score
1	Sumitomo Mitsui	180.67
2	Aviva	159.67
3	MUFG Investor Services	149.67

G2 LENDERS RATED BY G1 BORROWERS: GLOBAL
WEIGHTED BY IMPORTANCE

Rank		Score
1	Sumitomo Mitsui	155.98
2	Aviva	141.27
3	MUFG Investor Services	128.76

G2 LENDERS RATED BY G1 BORROWERS: AMERICAS
UNWEIGHTED

Rank		Score
1	NBC Global Finance	144.33
2	MUFG Investor Services	82.67
3	Sumitomo Mitsui	79.67

G2 LENDERS RATED BY G1 BORROWERS: AMERICAS
WEIGHTED BY IMPORTANCE

Rank		Score
1	NBC Global Finance	122.41
2	MUFG Investor Services	70.57
3	Sumitomo Mitsui	70.41

G2 LENDERS RATED BY G1 BORROWERS: EMEA
UNWEIGHTED

Rank		Score
1	Aviva	159.67
2	Nordea	144.83
3	Sumitomo Mitsui	101.00

G2 LENDERS RATED BY G1 BORROWERS: EMEA
WEIGHTED BY IMPORTANCE

Rank		Score
1	Aviva	141.27
2	Nordea	119.49
3	Sumitomo Mitsui	85.57

G2 LENDERS RATED BY G1 BORROWERS: ASIA-PACIFIC
UNWEIGHTED

Rank		Score
1	MUFG Investor Services	49.00

G2 LENDERS RATED BY G1 BORROWERS: ASIA-PACIFIC
WEIGHTED BY IMPORTANCE

Rank		Score
1	MUFG Investor Services	41.93

GROUP TWO LENDERS:

AVIVA:

The asset manager improved on last year's fifth by coming top of the Group Two lenders list with an unweighted score of 208.17, compared to last year's 327.17, and a weighted total of 183.3, compared to last year's 281.97. Aviva is particularly strong in Europe where it came top with an unweighted score of 208.17 and a weighted total of 183.3.

Aviva came top in EMEA with an unweighted score of 159.67, and second globally when ranked by Group One borrowers. Aviva was also second in EMEA when rated by Group Two borrowers.

SUMITOMO MITSUI:

Sumitomo Mitsui finished second in the global weighted section and unweighted Group. The Japanese firm scored 194 in the unweighted list, which compares with 353.83 last year, and 166.65 in the weighted category, which is down on last year's 304.95. Sumitomo Mitsui was third overall in the Americas.

When rated by Group One borrowers, Sumitomo Mitsui was top globally, and third in the Americas and in EMEA.

NBC GLOBAL FINANCE:

The firm broke into the top three among the global Group Two lenders list with an unweighted score of 193.33 and a weighted score of 164.34, which was narrowly behind Sumitomo Mitsui.

The lender was the top-rated Group Two lender in the Americas with an unweighted score of 168.83 and a weighted score of 143.37. NBC was the top Group Two lender rated by Group One borrowers in the Americas. It was also third globally

G2 LENDERS

Most Innovative
Rated by Group 1 Borrowers
NBC Global Finance

rated by Group Two borrowers, with an unweighted score of 49, and joint top in the Americas with an unweighted score of 24.5 and a weighted score of 20.96.

MUFG:

MUFG Investor Services came second in the Americas with a weighted score of 91.53 and an unweighted score of 107.17, which is an improvement on last year when it didn't make the top six.

The lender is particularly strong in Asia where it came top with an unweighted score of 49 and a weighted score of 41.93. The firm was third globally, second in the Americas and top in Asia when ranked by its largest borrowing counterparties. MUFG Investor Services was joint top in the Americas when rated by its smaller clients with a weighted score of 20.96 and an unweighted score of 24.50.

NORDEA:

The Finnish-based firm scored well in Europe where it amassed 160.83, compared to 239.00 last year, in the unweighted category and 135.96 in the weighted list, which compared to 202.83 last year. Nordea was also second in EMEA when rated by Group One borrowers.

CACEIS:

The French lender has slipped back in 2021 after last year claiming top spot in the overall global weighted and unweighted categories.

CACEIS scored in 2020 a massive 448.58 in the unweighted survey, beating Natixis Asset Management Finance into second. The French lender also dominated the global overall weighted list with 396.26.

Last year, CACEIS was top in EMEA with an unweighted tally of 307.42 and weighted total of 269.71, whereas this year it came third in EMEA with an unweighted score of 148.50 and a weighted score of 127.5.

In the Group Two lenders rated by Group Two borrowers section, CACEIS claimed top spot in the unweighted list this year with a score of 75.67, which compares with last year's 280.67. In the global weighted Group Two rated by Group Two borrowers, CACEIS scored 64.14 in the weighted category.

The French firm was also top in the Group Two lenders rated by Group Two borrowers in EMEA where it had a weighted score of 48.30 and an unweighted score of 57.17. It was third in Asia when rated by its smaller counterparties with a weighted score of 15.84 and an unweighted score of 18.50.

BNP PARIBAS SECURITIES SERVICES PRINCIPAL LENDING:

BNP Paribas Securities Services Principal Lending came second in Asia-Pacific in the unweighted section with a score of 22.33 and third in Asia in the weighted section with 18.99. The French firm was second global when rated by Group Two borrowers with a weighted score of 49.36 and an unweighted score of 56.83.

BNP was third in Europe when rated by smaller counterparties with a weighted score of 30.37 and an unweighted score of 34.50. The firm was top in Asia by smaller borrowers with an unweighted score of 22.33.

AMUNDI:

The French asset management giant, which can count itself among the largest money managers in Europe, was third in Asia by the weighted measure and second in that region in the unweighted list.

Amundi came second in Asia Pacific where the Group Two lenders are rated by Group Two borrowers and the scores are not weighted with a score of 22.17. In the Group Two lenders rated by Group Two borrowers in Asia-Pacific and the scores are weighted, Amundi was top with a score of 18.99. ■

G2 LENDERS

Most Innovative

Rated by Group 2 Borrowers

BNP Paribas Securities Services Principal Lending

Amundi

G2 LENDERS RATED BY G2 BORROWERS: GLOBAL

UNWEIGHTED

Rank		Score
1	CACEIS Bank	75.67
2	BNP Paribas Securities Services Principal Lending	56.83
3	NBC Global Finance	49.00

G2 LENDERS RATED BY G2 BORROWERS: GLOBAL

WEIGHTED BY IMPORTANCE

Rank		Score
1	CACEIS Bank	64.14
2	BNP Paribas Securities Services Principal Lending	49.36
3	Aviva	41.99

G2 LENDERS RATED BY G2 BORROWERS: AMERICAS

UNWEIGHTED

Rank		Score
1 =	MUFG Investor Services	24.50
1 =	NBC Global Finance	24.50

G2 LENDERS RATED BY G2 BORROWERS: AMERICAS

WEIGHTED BY IMPORTANCE

Rank		Score
1 =	MUFG Investor Services	20.96
1 =	NBC Global Finance	20.96

G2 LENDERS RATED BY G2 BORROWERS: EMEA

UNWEIGHTED

Rank		Score
1	CACEIS Bank	57.17
2	Aviva	48.50
3	BNP Paribas Sec Services Principal Lending	34.50

G2 LENDERS RATED BY G2 BORROWERS: EMEA

WEIGHTED BY IMPORTANCE

Rank		Score
1	CACEIS Bank	48.30
2	Aviva	41.99
3	BNP Paribas Sec Services Principal Lending	30.37

G2 LENDERS RATED BY G2 BORROWERS: ASIA-PACIFIC

UNWEIGHTED

Rank		Score
1	BNP Paribas Securities Services Principal Lending	22.33
2	Amundi	22.17
3	CACEIS Bank	18.50

G2 LENDERS RATED BY G2 BORROWERS: ASIA-PACIFIC

WEIGHTED BY IMPORTANCE

Rank		Score
1	Amundi	19.08
2	BNP Paribas Sec Services Principal Lending	18.99
3	CACEIS Bank	15.84

GROUP ONE BORROWERS:

UBS:

UBS was once again voted the top borrower globally, winning the unweighted and weighted categories. In the unweighted global section, UBS scored 539, which was down on last year's score of 939.50. In the weighted list, UBS scored 514.8, which was also down on 2020's 899.99.

The Swiss borrower was top in both the unweighted and weighted lists for the Americas, EMEA and Asia Pacific. UBS was also top globally, in the Americas, EMEA and Asia across the weighted and unweighted sections where Group One borrowers are rated by Group One lenders.

UBS does not appear in the tables that rank Group One borrowers rated by Group Two lenders.

> UBS was once again voted the top borrower globally, winning the unweighted and weighted categories

G1 BORROWERS: GLOBAL
UNWEIGHTED

Rank		Score
1	UBS	539.00
2	Morgan Stanley	394.08
3	BMO Capital Markets	284.83
4	Scotiabank	261.67
5	BNP Paribas	202.33
6	HSBC Bank Plc	176.00

G1 BORROWERS: GLOBAL
WEIGHTED BY IMPORTANCE

Rank		Score
1	UBS	514.81
2	Morgan Stanley	382.14
3	BMO Capital Markets	275.05
4	Scotiabank	249.69
5	BNP Paribas	192.31
6	HSBC Bank Plc	166.26

G1 BORROWERS: AMERICAS
UNWEIGHTED

Rank		Score
1	UBS	154.67
2	Morgan Stanley	141.00
3	BMO Capital Markets	100.67
4	Scotiabank	97.00
5	BNP Paribas	77.00
6	RBC Capital Markets	76.83

G1 BORROWERS: AMERICAS
WEIGHTED BY IMPORTANCE

Rank		Score
1	UBS	146.44
2	Morgan Stanley	135.03
3	BMO Capital Markets	98.54
4	Scotiabank	94.32
5	BNP Paribas	74.08
6	RBC Capital Markets	71.45

G1 BORROWERS: EMEA
UNWEIGHTED

Rank		Score
1	UBS	198.67
2	Morgan Stanley	152.42
3	Scotiabank	115.67
4	BMO Capital Markets	113.00
5	HSBC Bank Plc	76.33
6	Societe Generale CIB	68.67

G1 BORROWERS: EMEA
WEIGHTED BY IMPORTANCE

Rank		Score
1	UBS	188.10
2	Morgan Stanley	151.79
3	Scotiabank	108.50
4	BMO Capital Markets	107.72
5	HSBC Bank Plc	72.96
6	Societe Generale CIB	64.86

G1 BORROWERS: ASIA-PACIFIC
UNWEIGHTED

Rank		Score
1	UBS	185.67
2	Morgan Stanley	100.67
3	BMO Capital Markets	71.17
4	BNP Paribas	61.33
5	HSBC Bank Plc	56.50
6	Scotiabank	49.00

G1 BORROWERS: ASIA-PACIFIC
WEIGHTED BY IMPORTANCE

Rank		Score
1	UBS	180.27
2	Morgan Stanley	95.32
3	BMO Capital Markets	68.79
4	BNP Paribas	58.23
5	HSBC Bank Plc	53.41
6	Scotiabank	46.87

MORGAN STANLEY:

The US bank was second for the second year running in the global list of Group One borrowers. Morgan Stanley scored this year 394.08 in the unweighted table, which compares to 904.83 last year, and 382.14 in the weighted section, compared with 869.79 last year.

Morgan Stanley slipped to second in the Americas where it scored 141 in the unweighted section, compared to last year's 284.67, and 135 in the weighted category, in contrast to last year's 284.13.

The US borrower was also second in the weighted and unweighted categories in EMEA and the Asia-pacific, a position it held last year also.

The US firm was second overall behind UBS when assessed by Group One lenders globally and in the Americas, which represents the loss of top spot from last year in the world's biggest lending market. Morgan Stanley was third in EMEA and second in Asia rated by its larger lending counterparties.

BMO CAPITAL MARKETS:

The Canadian borrower improves significantly on last year's performance when it came sixth by finishing third this year, replacing Citi which was third last year but unplaced this year.

BMO Capital Markets scored 284.83 in the global unweighted list, compared to last year's 300.00, and 275 in the weighted list, down slightly on last year's 277.64. BMO Capital Markets was particularly strong in the Americas where it finished third, with 100.67 in the unweighted table and 98.54 in the weighted Group. BMO also finished third globally, in the Americas and Asia, and second in EMEA when rated by Group One lenders.

SCOTIABANK:

Scotiabank was fourth globally after last year coming fifth among Group One borrowers in the Americas. The Canadian borrower had a global

weighted score of 249.69 and an unweighted score of 261.67. In the Americas, the firm was fourth with a weighted score of 94.32 and an unweighted total of 97. The bank was third in EMEA and sixth in the Asia-Pacific.

Scotia was also fourth globally, in the Americas and EMEA, and fifth in the Asia-Pacific when rated by Group One lenders.

BNP PARIBAS:

The French bank was fifth globally this year, which is an improvement on last year when it did not make the top six. BNP scored 192.31 in the global weighted list and 202.33 in the global unweighted table.

In the Americas, the French borrower scored 74.08 in the weighted section and 77 in the unweighted category. The firm also came fourth in the Asia-Pacific where it scored 58.23 in the weighted section and 61.33 in the unweighted table. BNP was sixth globally, in the Americas, EMEA and the Asia-Pacific when rated by Group One lenders.

G1 BORROWERS RATED BY G1 LENDERS: GLOBAL
UNWEIGHTED

Rank		Score
1	UBS	527.33
2	Morgan Stanley	311.33
3	BMO Capital Markets	283.83
4	Scotiabank	241.00
5	HSBC Bank Plc	164.17
6	BNP Paribas	146.33

G1 BORROWERS RATED BY G1 LENDERS: GLOBAL
WEIGHTED BY IMPORTANCE

Rank		Score
1	UBS	504.58
2	Morgan Stanley	298.51
3	BMO Capital Markets	274.69
4	Scotiabank	229.76
5	HSBC Bank Plc	155.19
6	BNP Paribas	139.70

G1 BORROWERS RATED BY G1 LENDERS: AMERICAS
UNWEIGHTED

Rank		Score
1	UBS	154.67
2	Morgan Stanley	110.67
3	BMO Capital Markets	100.67
4	Scotiabank	97.00
5	RBC Capital Markets	70.33
6	BNP Paribas	48.00

G1 BORROWERS RATED BY G1 LENDERS: AMERICAS
WEIGHTED BY IMPORTANCE

Rank		Score
1	UBS	146.44
2	Morgan Stanley	105.21
3	BMO Capital Markets	98.54
4	Scotiabank	94.32
5	RBC Capital Markets	65.78
6	BNP Paribas	45.84

G1 BORROWERS RATED BY G1 LENDERS: EMEA
UNWEIGHTED

Rank		Score
1	UBS	187.00
2	BMO Capital Markets	112.00
3	Morgan Stanley	103.00
4	Scotiabank	95.00
5	HSBC Bank Plc	65.00
6	BNP Paribas	50.33

G1 BORROWERS RATED BY G1 LENDERS: EMEA
WEIGHTED BY IMPORTANCE

Rank		Score
1	UBS	177.87
2	BMO Capital Markets	107.36
3	Morgan Stanley	100.53
4	Scotiabank	88.57
5	HSBC Bank Plc	62.41
6	BNP Paribas	48.02

G1 BORROWERS RATED BY G1 LENDERS: ASIA-PACIFIC
UNWEIGHTED

Rank		Score
1	UBS	185.67
2	Morgan Stanley	97.67
3	BMO Capital Markets	71.17
4	HSBC Bank Plc	56.50
5	Scotiabank	49.00
6	BNP Paribas	48.00

G1 BORROWERS RATED BY G1 LENDERS: ASIA-PACIFIC
WEIGHTED BY IMPORTANCE

Rank		Score
1	UBS	180.27
2	Morgan Stanley	92.77
3	BMO Capital Markets	68.79
4	HSBC Bank Plc	53.41
5	Scotiabank	46.87
6	BNP Paribas	45.84

> HSBC consolidated its position from last year after it improved its performance from 2019

HSBC:

HSBC consolidated its position from last year after it improved its performance from 2019. HSBC came fourth last year and this year it was sixth globally in the weighted and unweighted categories.

HSBC scored 176 in the unweighted category, compared to 419.92 last year, and 166.26 in the weighted section, down from 398.12 last year. The British bank was fifth in EMEA and in the Asia-Pacific. When rated by Group One lenders, HSBC was fourth Asia, and fifth globally and in EMEA.

RBC CAPITAL MARKETS:

The Canadian borrower came sixth this year in the Americas, narrowly behind BNP Paribas. RBC scored 71.45 in the Americas weighted list and 76.83 in the Americas unweighted category. The firm was also fifth in Americas when rated by Group One lenders.

SOCIETE GENERALE:

Societe Generale CIB came sixth in the EMEA table, which is an improvement on last year when the firm did not make the top six, with a weighted score of 64.86 and an unweighted score of 68.67.

The French bank was also sixth in the list of Group One borrowers rated by Group Two lenders with an unweighted score of 21.

G1 BORROWERS

Most Innovative
Rated by Group 1 Lenders
BMO Capital Markets

JP MORGAN:

JP Morgan dropped out of the global top six this year, after finishing fifth last year with an unweighted score of 310.83 and weighted score of 313.39.

The US bank performed well as scored by Group Two lenders, where it won globally with an unweighted score of 101 and a weighted score of 98.42. JP Morgan was also top in the Americas, second in EMEA and sixth in Asia as rated by Group Two lenders.

GOLDMAN SACHS:

The US bank slipped back in 2021 after hitting the top six overall in EMEA last year. The US firm did particularly well when ranked by Group Two lenders who voted Goldman Sachs the second-best borrower globally, behind JP Morgan. The US bank was sixth in the Americas as voted by Group Two lenders, top in EMEA and second in Asia Pacific accord to the Group Two lenders.

BANK OF AMERICA MERRILL LYNCH:

Bank of America Merrill Lynch was third globally in the unweighted category when rated by Group Two lenders with an unweighted score of 84.92. The US bank was top in the Asia-Pacific as ranked by smaller lenders, fourth in EMEA and third in the Americas according to Group Two lenders.

BARCLAYS:

The UK bank came fifth globally when rated by Group Two lenders, with scores of 75.50 in the unweighted section and 73.97 in the weighted survey. Barclays was second in the Americas rated by Group Two lenders.

Barclays also came fifth among Group One borrowers rated by Group Two lenders in Asia Pacific with an unweighted score of 9.67 and a weighted score of 9.2. The borrower was fifth in EMEA when rated by Group Two lenders with scores of 28.5 and 29.

> Deutsche Bank, which did not feature in the borrowers survey last year, was fourth in the Asia-Pacific when rated by Group Two lenders

DEUTSCHE BANK:

Deutsche Bank, which did not feature in the borrowers survey last year, was fourth in the Asia-Pacific when rated by Group Two lenders with an unweighted score of 11.33 and a weighted score of 11.04. ■

G1 BORROWERS

Most Innovative

Rated by Group 2 Lenders

Bank of America Merrill Lynch

Goldman Sachs

Morgan Stanley

G1 BORROWERS RATED BY G2 LENDERS: GLOBAL

UNWEIGHTED

Rank		Score
1	JPMorgan	101.00
2	Goldman Sachs	91.50
3	Bank of America Merrill Lynch	84.92
4	Morgan Stanley	82.75
5	Barclays	75.50
6	BNP Paribas	56.00

G1 BORROWERS RATED BY G2 LENDERS: GLOBAL

WEIGHTED BY IMPORTANCE

Rank		Score
1	JPMorgan	98.42
2	Goldman Sachs	86.77
3	Morgan Stanley	83.63
4	Bank of America Merrill Lynch	81.79
5	Barclays	73.97
6	BNP Paribas	52.61

G1 BORROWERS RATED BY G2 LENDERS: AMERICAS

UNWEIGHTED

Rank		Score
1	JPMorgan	41.50
2	Barclays	37.33
3	Bank of America Merrill Lynch	32.83
4	Morgan Stanley	30.33
5	BNP Paribas	29.00
6	Goldman Sachs	21.00

G1 BORROWERS RATED BY G2 LENDERS: AMERICAS

WEIGHTED BY IMPORTANCE

Rank		Score
1 J	PMorgan	40.26
2	Barclays	35.77
3	Bank of America Merrill Lynch	30.63
4	Morgan Stanley	29.82
5	BNP Paribas	28.24
6	Goldman Sachs	19.58

G1 BORROWERS RATED BY G2 LENDERS: EMEA

UNWEIGHTED

Rank		Score
1	Goldman Sachs	53.17
2	JPMorgan	50.33
3	Morgan Stanley	49.42
4	Bank of America Merrill Lynch	32.42
5	Barclays	28.50
6	Societe Generale CIB	21.00

G1 BORROWERS RATED BY G2 LENDERS: EMEA

WEIGHTED BY IMPORTANCE

Rank		Score
1	Morgan Stanley	51.26
2	Goldman Sachs	50.68
3	JPMorgan	48.79
4	Bank of America Merrill Lynch	32.47
5	Barclays	29.00
6	Scotiabank	19.93

G1 BORROWERS RATED BY G2 LENDERS: ASIA-PACIFIC

UNWEIGHTED

Rank		Score
1	Bank of America Merrill Lynch	19.67
2	Goldman Sachs	17.33
3	BNP Paribas	13.33
4	Deutsche Bank	11.33
5	Barclays	9.67
6	JPMorgan	9.17

G1 BORROWERS RATED BY G2 LENDERS: ASIA-PACIFIC

WEIGHTED BY IMPORTANCE

Rank		Score
1	Bank of America Merrill Lynch	18.68
2	Goldman Sachs	16.50
3	BNP Paribas	12.39
4	Deutsche Bank	11.04
5	JPMorgan	9.37
6	Barclays	9.20

GROUP TWO BORROWERS:

> The French firm retained top spot amongst Group Two borrowers, and was also the top-rated Group Two borrower in the Americas, where it was top in both lists, second in EMEA and third in the Asia-Pacific.

NATIXIS:

The French firm retained top spot amongst Group Two borrowers. Natixis scored this year 316.33 in the weighted section, down from 787.00 in 2020.

The French borrower was also the top-rated Group Two borrower in the Americas, where it was top in both lists, second in EMEA and third in the Asia-Pacific.

ABN AMRO CLEARING BANK:

The Dutch bank came second globally, with an unweighted score of 234.17, which was down on last year's 376.33, and a weighted tally of 227.54, which was 352.12 in 2020.

ABN Amro was top in EMEA overall, and second in that region when ranked by Group One lenders. The Dutch firm was top globally, in EMEA and in Asia when scored by Group Two lenders.

JEFFERIES:

The US bank improved on last year's sixth amongst Group Two borrowers in the Americas to finish third globally with a weighted total of 205.10 and an unweighted tally of 213.17.

Jefferies was third in EMEA overall and third globally as rated by Group One lenders weighted total of 158.56 and an unweighted score of 166.67.

Jefferies also came third in EMEA as rated by Group One lenders and second in Europe according to Group Two lenders.

MITSUBISHI SECURITIES:

Mitsubishi Securities came second in the Americas in 2021, having fallen outside of the top six last year. The borrowing arm of the Japanese firm was second among Group Two borrowers in the Americas with a weighted score of 62.78 and an unweighted score of 65.50.

Mitsubishi was second in the Americas as called by Group Two lenders who gave the firm an unweighted score of 28.5 and a weighted score of 28.04.

WELLS FARGO:

Last year, the US bank was the top Group Two borrower in the Americas with an unweighted score of 167.00 but its score has dropped this year to 63, which puts Wells Fargo third in the Americas.

Wells Fargo was this year second in the Americas when scored by Group One lenders and third in the same region as rated by Group Two lenders.

MACQUARIE:

Macquarie came second globally when rated by Group One lenders with an unweighted score of 172.67, which was down heavily on its score last year of 383.33. The Australian borrower also came second in Asia-Pacific when rated by Group One lenders, with an unweighted score of 74.67. This compares to a score of 251.00 last year.

Macquarie was second in the Asia-Pacific rated by Group Two lenders with an unweighted score of 18.67 and a weighted score of 17.65.

G2 BORROWERS: GLOBAL
UNWEIGHTED

Rank		Score
1	Natixis	316.33
2	ABN Amro Clearing Bank	234.17
3	Jefferies	213.17

G2 BORROWERS: GLOBAL
WEIGHTED BY IMPORTANCE

Rank		Score
1	Natixis	300.41
2	ABN Amro Clearing Bank	227.54
3	Jefferies	205.10

G2 BORROWERS: AMERICAS
UNWEIGHTED

Rank		Score
1	Natixis	90.50
2	Mitsubishi Securities	65.50
3	Wells Fargo	63.00

G2 BORROWERS: AMERICAS
WEIGHTED BY IMPORTANCE

Rank		Score
1	Natixis	85.09
2	Mitsubishi Securities	62.78
3	Wells Fargo	60.16

G2 BORROWERS: EMEA
UNWEIGHTED

Rank		Score
1	ABN Amro Clearing Bank	150.17
2	Natixis	142.00
3	Jefferies	109.50

G2 BORROWERS: EMEA
WEIGHTED BY IMPORTANCE

Rank		Score
1	ABN Amro Clearing Bank	143.85
2	Natixis	135.72
3	Jefferies	105.82

G2 BORROWERS: ASIA-PACIFIC
UNWEIGHTED

Rank		Score
1	Macquarie	93.33
2	Nomura	89.50
3	Natixis	83.83

G2 BORROWERS: ASIA-PACIFIC
WEIGHTED BY IMPORTANCE

Rank		Score
1	Macquarie	92.59
2	Nomura	85.08
3	Natixis	79.60

NOMURA:
The Japanese borrower was second overall in Asia-Pacific with a weighted score of 85 and an unweighted score of 89.50. The firm was first in Asia as rated by Group One lenders, beating Macquarie in the unweighted section, and coming second to the Australian bank in the weighted category. Nomura was second globally and top in the Americas when scored by Group Two lenders.

NBC GLOBAL FINANCE:
NBC Global Finance came third in Group Two borrowers rated by Group One lenders in EMEA with an unweighted score of 38. ■

G2 BORROWERS
Most Innovative
Rated by Group 1 Lenders
Natixis

G2 BORROWERS
Most Innovative
Rated by Group 2 Lenders
ABN Amro Clearing Bank

> ABN Amro Clearing Bank was top globally, in EMEA and in Asia when scored by Group Two lenders, who also named the Dutch bank most innovative

G2 BORROWERS RATED BY G1 LENDERS: GLOBAL
UNWEIGHTED

Rank		Score
1	Natixis	259.17
2	Macquarie	172.67
3	Jefferies	166.67

G2 BORROWERS RATED BY G1 LENDERS: GLOBAL
WEIGHTED BY IMPORTANCE

Rank		Score
1	Natixis	248.75
2	Macquarie	167.81
3	Jefferies	158.56

G2 BORROWERS RATED BY G1 LENDERS: AMERICAS
UNWEIGHTED

Rank		Score
1	Natixis	82.00
2	Wells Fargo	42.00
3	NBC Global Finance	38.00

G2 BORROWERS RATED BY G1 LENDERS: AMERICAS
WEIGHTED BY IMPORTANCE

Rank		Score
1	Natixis	78.83
2	Wells Fargo	40.11
3	Macquarie	35.41

G2 BORROWERS RATED BY G1 LENDERS: EMEA
UNWEIGHTED

Rank		Score
1	Natixis	108.17
2	ABN Amro Clearing Bank	89.00
3	Jefferies	75.33

G2 BORROWERS RATED BY G1 LENDERS: EMEA
WEIGHTED BY IMPORTANCE

Rank		Score
1	Natixis	104.43
2	ABN Amro Clearing Bank	85.02
3	Jefferies	71.15

G2 BORROWERS RATED BY G1 LENDERS: ASIA-PACIFIC
UNWEIGHTED

Rank		Score
1	Nomura	77.00
2	Macquarie	74.67
3	Natixis	69.00

G2 BORROWERS RATED BY G1 LENDERS: ASIA-PACIFIC
WEIGHTED BY IMPORTANCE

Rank		Score
1	Macquarie	74.94
2	Nomura	73.11
3	Natixis	65.49

G2 BORROWERS RATED BY G2 LENDERS: GLOBAL
UNWEIGHTED

Rank		Score
1	ABN Amro Clearing Bank	87.67
2	Nomura	67.00
3	Natixis	57.17

G2 BORROWERS RATED BY G2 LENDERS: GLOBAL
WEIGHTED BY IMPORTANCE

Rank		Score
1	ABN Amro Clearing Bank	84.98
2	Nomura	63.61
3	Natixis	51.66

G2 BORROWERS RATED BY G2 LENDERS: AMERICAS
UNWEIGHTED

Rank		Score
1	Nomura	32.50
2	Mitsubishi Securities	28.50
3	Wells Fargo	21.00

G2 BORROWERS RATED BY G2 LENDERS: AMERICAS
WEIGHTED BY IMPORTANCE

Rank		Score
1	Nomura	30.48
2	Mitsubishi Securities	28.04
3	Wells Fargo	20.05

G2 BORROWERS RATED BY G2 LENDERS: EMEA
UNWEIGHTED

Rank		Score
1	ABN Amro Clearing Bank	61.17
2	Jefferies	34.17
3	Natixis	33.83

G2 BORROWERS RATED BY G2 LENDERS: EMEA
WEIGHTED BY IMPORTANCE

Rank		Score
1	ABN Amro Clearing Bank	58.83
2	Jefferies	34.67
3	Natixis	31.29

G2 BORROWERS RATED BY G2 LENDERS: ASIA-PACIFIC
UNWEIGHTED

Rank		Score
1	ABN Amro Clearing Bank	20.00
2	Macquarie	18.67
3	Natixis	14.83

G2 BORROWERS RATED BY G2 LENDERS: ASIA-PACIFIC
WEIGHTED BY IMPORTANCE

Rank		Score
1	ABN Amro Clearing Bank	19.29
2	Macquarie	17.65
3	Natixis	14.11

FIXED INCOME LENDING:

UBS SWITZERLAND:

UBS Switzerland once again claimed top prize in 2021, winning the global unweighted and weighted categories. The fixed income lending arm of the Swiss Group scored 1,097.00 in the unweighted category, which was exactly the same score as last year, and 999.9 in the weighted list, which was flat on 2020's score of 1,006.30.

UBS Switzerland dominated in EMEA with scores of 922 and 837.18, which were way ahead of the scores of the firm in second place.

> UBS Switzerland once again claimed top prize in 2021, winning the global unweighted and weighted categories

BNY MELLON:

The US bank came second in the global Group, scoring 869.50 in the unweighted section and 813.80 in the weighted class. Both these results were up on last year when BNY Mellon was also the second-rated fixed income lender. BNY Mellon won in the Americas with scores of 298.50 and 281.31, and finished second in EMEA.

CLEARSTREAM:

The arm of the German exchange giant Deutsche Boerse jumped one place to third spot this year with scores of 552 and 518, which were down on last year's totals of 630.50 and 584.75. Clearstream also performed well regionally, claiming third place in EMEA and fifth spot in Asia-Pacific.

JP MORGAN:

The US banking Group also jumped one place in the global list to fourth. The US bank's weighted score of 439.22 was down on last year's 530.88. In the unweighted section, JP Morgan was fourth with 480.50, which was down on last year's score of 576.00. The US lender was also fourth in EMEA and sixth in the Asia-Pacific.

STATE STREET:

The US bank came fifth globally amongst the fixed income lenders after finishing third last year. This year the firm had an unweighted score of 460.50, compared to last year's 647.00, and a weighted score of 429.33, compared to 586.4 in 2020. State Street was also the third rated lender in the Americas, behind BNY Mellon and Northern Trust, and the fifth highest firm in the EMEA list.

DEUTSCHE AGENCY LENDING:

Deutsche Agency Lending features in the 2021 fixed income section after missing out last year. The lending

> UBS Switzerland once again claimed top prize in 2021, winning the global unweighted and weighted categories

GLOBAL FIXED INCOME — UNWEIGHTED

Rank		Score
1	UBS Switzerland	1,097.00
2	BNY Mellon	869.50
3	Clearstream	552.00
4	JPMorgan	480.50
5	State Street	460.50
6	Deutsche Agency Lending	380.00

GLOBAL FIXED INCOME — WEIGHTED BY IMPORTANCE

Rank		Score
1	UBS Switzerland	999.86
2	BNY Mellon	813.80
3	Clearstream	518.10
4	JPMorgan	439.22
5	State Street	429.33
6	Deutsche Agency Lending	363.18

AMERICAS FIXED INCOME — UNWEIGHTED

Rank		Score
1	BNY Mellon	298.50
2	Northern Trust	126.00
3	State Street	95.00
4	RBC Investor & Treasury Services	94.00
5	UBS Switzerland	87.00
6	Citi	78.00

AMERICAS FIXED INCOME — WEIGHTED BY IMPORTANCE

Rank		Score
1	BNY Mellon	281.31
2	Northern Trust	115.84
3	State Street	88.96
4	RBC Investor & Treasury Services	88.59
5	UBS Switzerland	83.09
6	Citi	73.62

EMEA FIXED INCOME — UNWEIGHTED

Rank		Score
1	UBS Switzerland	922.00
2	BNY Mellon	538.00
3	Clearstream	483.00
4	JPMorgan	371.50
5	State Street	347.50
6	Deutsche Agency Lending	343.00

EMEA FIXED INCOME — WEIGHTED BY IMPORTANCE

Rank		Score
1	UBS Switzerland	837.18
2	BNY Mellon	504.53
3	Clearstream	454.87
4	JPMorgan	338.15
5	Deutsche Agency Lending	329.59
6	State Street	323.85

ASIA-PACIFIC FIXED INCOME — UNWEIGHTED

Rank		Score
1	Credit Suisse Zurich	89.00
2	UBS Switzerland	88.00
3	BNP Paribas Securities Services	45.00
4	HSBC Agent Lender	41.00
5	Clearstream	38.00
6	JPMorgan	36.00

ASIA-PACIFIC FIXED INCOME — WEIGHTED BY IMPORTANCE

Rank		Score
1	UBS Switzerland	79.59
2	Credit Suisse Zurich	78.68
3	BNP Paribas Securities Services	41.30
4	HSBC Agent Lender	38.08
5	JPMorgan	33.04
6	Clearstream	32.43

FIXED INCOME LENDER

Most Innovative

UBS Switzerland

arm of the German bank was sixth globally with a weighted score of 363.2 and an unweighted score of 380. The lender was also sixth in EMEA, narrowly behind State Street.

HSBC AGENT LENDER:
The lending arm of the UK banking giant came fourth in Asia Pacific, with an unweighted score of 41 and a weighted score of 38, which were up on last year's scores when it came sixth in the region.

NORTHERN TRUST:
The US banking Group came second in the Americas fixed income lending survey, with scores of 126 in the unweighted Group and 115.8 in the weighted section. These were on par with its scores last year when the bank was fifth in the Americas.

CITI:
The US bank came sixth in the Americas fixed income lending survey. Citi scored 78 in the unweighted list and 73.6 in the weighted list. Last year Citi was fourth in the Americas with 196 in the unweighted list and 172.44 in the weighted rankings.

RBC INVESTOR & TREASURY SERVICES:
The Canadian bank was another new entry to this year's fixed income lending survey. RBC came fourth in the Americas with a weighted score of 88.6 and an unweighted score of 94.

BNP PARIBAS SECURITIES SERVICES:
The custody arm of the French banking giant was third in the Asia-Pacific this year after not featuring in that list last year. The French lender scored 41.30 in the weighted list and 45 in the unweighted list. ■

TECHNOLOGY VENDORS:

EQUILEND:

EquiLend PTS, the post-trade solution, was the only solution to return a score in the global, Americas and Asia-Pacific regions. Its global score of 6.42 was up on last year's 6.21, its Americas score of 6.62 was up on 2020's 6.21 and its Asian tally of 6.56 was also an improvement on last year's 5.99.

In the unweighted section, EquiLend's trading platform was second to GLMX globally and in the Americas, third to GLMX and wematch in Europe, and the only entry in Asia.

In the weighted section, EquiLend/BondLend NGT was second to GLMX globally, in the Americas and in Europe, and the only firm to qualify in Asia. EquiLend Spire was the only technology vendor that featured in the software solutions category.

PIRUM SYSTEMS:

Pirum Systems, who did not actively participate in the survey, was second in the Europe, the Middle East and Africa post-trade services category with a score of 6.03.

GLMX:

GLMX came top of the securities finance trading platforms globally, in the Americas and in EMEA in the weighted and unweighted sections. GLMX won the Americas unweighted SBL Trading Platform section last year with a score of 6.58, which improved to 7.00 this year.

WEMATCH:

wematch was the second SBL trading platform vendor in EMEA using raw data with a score of 6.03. The fintech firm was third with an EMEA score of 4.48 when the scores are weighted according to clients. ■

TECHNOLOGY VENDORS - POST TRADE SERVICES

GLOBAL			AMERICAS			EMEA			ASIA-PACIFIC		
Rank		Score	Rank		Score	Rank		Score	Rank		Score
1	EquiLend PTS	6.42	1	EquiLend PTS	6.62	1	EquiLend PTS	6.19	1	EquiLend PTS	6.56
						2	Pirum Systems	6.03			

TECHNOLOGY VENDORS - SBL TRADING PLATFORM (UNWEIGHTED)

GLOBAL			AMERICAS			EMEA			ASIA-PACIFIC		
Rank		Score	Rank		Score	Rank		Score	Rank		Score
1	GLMX	6.72	1	GLMX	7.00	1	GLMX	6.44	1	EquiLend/BondLend NGT	6.54
2	EquiLend/BondLend NGT	6.27	2	EquiLend/BondLend NGT	6.62	2	wematch	6.03			
						3	EquiLend/BondLend NGT	6.00			

TECHNOLOGY VENDORS - SBL TRADING PLATFORM (WEIGHTED)

GLOBAL			AMERICAS			EMEA			ASIA-PACIFIC		
Rank		Score	Rank		Score	Rank		Score	Rank		Score
1	GLMX	7.06	1	GLMX	7.70	1	GLMX	6.41	1	EquiLend/BondLend NGT	6.57
2	EquiLend/BondLend NGT	6.37	2	EquiLend/BondLend NGT	6.91	2	EquiLend/BondLend NGT	6.05			
						3	wematch	4.48			

TECHNOLOGY VENDORS - SOFTWARE SOLUTIONS

GLOBAL			AMERICAS			EMEA		
Rank		Score	Rank		Score	Rank		Score
1	EquiLend Spire	6.61	1	EquiLend Spire	6.65	1	EquiLend Spire	6.52

DATA VENDORS:

EQUITIES:

DATALEND:

Where firms were using two data vendors, DataLend was top in each region and had the best average. Rated among clients using three data vendors, DataLend was second in EMEA and Asia, and top globally and in the Americas.

DataLend was second when rated by clients that use a single data vendor globally, in the Americas, in EMEA and Asia Pacific.

MARKIT SECURITIES FINANCE:

Markit Securities Finance had the best scores across the board among firms using a single data vendor, and also had the highest average when rated by these clients.

For firms using two data vendors, Markit Securities Finance had the second best score in the Americas and the second-best scores in all the other regions and globally. In the three data vendor survey, Markit Securities Finance was second in each region, and had the second-best average.

FIS:

This year, FIS was the third firm in every region, globally and on average for clients using two or three vendors. FIS was the third-best data vendor when rated by clients using only one data vendor.

FIXED INCOME:

DATALEND:

DataLend was top when rated by firms that use a single data vendor, with an average of 5.67 out of 7. DataLend was the top-rated data vendor in EMEA with a score of 5.63, which was up on last year's 5.40. It was also top in the Americas.

Among two vendor clients, DataLend won in the Americas and had the best global average.

With three data vendor clients, DataLend was top in EMEA and the Americas by global total and global average.

FIS:

FIS was second in the Americas for firms that use one data vendor with a score of 5 out of 7. The data vendor was also third on average among clients that use two and three data vendors.

MARKIT SECURITIES FINANCE:

Markit Securities Finance was rated second overall by firms that use a single vendor. The firm was also second on average among firms that use two vendors. Markit Securities Finance was second on average and in the Americas for clients that use three vendor solutions. ■

DATA VENDORS

SINGLE VENDOR EQUITIES

VENDOR	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
DataLend	**2nd** (5.23)	**2nd** (5.83)	**2nd** (4.86)	**2nd** (15.92)	**2nd** (5.42)
FIS	**3rd** (4.00)	**3rd** (4.86)	-	**3rd** (8.86)	**3rd** (4.43)
Markit Securities Finance	**1st** (6.58)	**1st** (6.00)	**1st** (5.36)	**1st** (17.94)	**1st** (5.97)

DATA VENDORS

TWO VENDOR EQUITIES

VENDOR	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
DataLend	**1st** (1.32)	**1st** (1.33)	**1st** (1.27)	**1st** (3.92)	**1st** (1.31)
FIS	**3rd** (2.00)	**2nd** = (1.67)	**3rd** (2.00)	**3rd** (5.67)	**3rd** (1.82)
Markit Securities Finance	**2nd** (1.55)	**2nd** = (1.67)	**2nd** (1.62)	**2nd** (4.84)	**2nd** (1.61)

DATA VENDORS

THREE VENDOR EQUITIES

VENDOR	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
DataLend	**1st** = (1.67)	**1st** (1.26)	**1st** = (1.50)	**1st** (4.43)	**1st** (1.43)
FIS	**3rd** (2.67)	**3rd** (2.71)	**3rd** (3.00)	**3rd** (8.38)	**3rd** (2.76)
Markit Securities Finance	**1st** = (1.67)	**2nd** (2.03)	**1st** = (1.50)	**2nd** (5.20)	**2nd** (1.81)

DATA VENDORS

SINGLE VENDOR FIXED INCOME:

VENDOR	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
DataLend	**1st** (5.63)	**1st** (6.14)	-	**1st** (11.77)	**1st** (5.67)
FIS	-	**2nd** = (5.00)	-	**3rd** (5.00)	**3rd** (5.00)
Markit Securities Finance	**2nd** (5.44)	**2nd** = (5.00)	-	**2nd** (10.44)	**2nd** (5.39)

DATA VENDORS

TWO VENDOR FIXED INCOME

VENDOR	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
DataLend	-	**1st** (1.34)	**2nd** (1.71)	**3rd** (3.05)	**1st** (1.40)
FIS	-	**2nd** (1.63)	-	**1st** (1.63)	**3rd** (1.63)
Markit Securities Finance	-	**3rd** (1.64)	**1st** (1.29)	**2nd** (2.93)	**2nd** (1.52)

DATA VENDORS

THREE VENDOR FIXED INCOME

VENDOR	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
DataLend	**1st** (1.00)	**1st** (1.00)	-	**1st** (2.00)	**1st** (1.00)
FIS	**3rd** (2.71)	**2nd** = (2.50)	-	**3rd** (5.21)	**3rd** (2.61)
Markit Securities Finance	**2nd** (2.29)	**2nd** = (2.50)	-	**2nd** (4.79)	**2nd** (2.39)

EQUITY LENDERS

The ISF Equity Lending Survey 2021 is designed to identify excellence in the industry.

Respondents – lenders or borrowers – are asked to rank their counterparties. There is a separate survey questionnaire for each side of the trade.

Respondents are asked to rank their top counterparties in each of the categories (see below) separately for each region.

A global entity is asked to rate its counterparties for every relevant geographical region: Europe, Middle East and Africa (EMEA), the Americas and Asia Pacific.

The region is defined by where the underlying securities are listed (not where either the respondent or counterparty is based). Therefore, global entity Lender X is asked to rank its top counterparties, in each category, for every region where the equities it trades are listed.

Overall scores are defined as ones where all the category scores are combined (there are global overall scores and regional overall scores)

Global scores are defined as ones where scores from all regions are combined (there are global overall scores and global category scores).

All entities that meet the qualification criteria are included in the appropriate tables regardless of whether the entity actively "participated" in the survey (i.e. circulated the survey in the industry).

MARKET DIVISION BY SCALE

Only the largest borrowers and lenders are eligible to be ranked in the survey. Likewise, these same two groups are the only entities eligible to rank their counterparts.

There is also a distinction between group one and group two entities. Group one consists of the largest counterparts and group two the remainder. This is to reflect the differences in the business models of these firms and ensure that more relevant comparisons are made.

Both group one and group two counterparties are asked to fill out an identical survey. All respondents are asked to rank seven group one counterparts in order of excellence exhibited in that category (from the list of group one counterparties). Similarly, all respondents are then also asked to rank their top seven group two counterparties. In theory any group two firm could receive a higher total score than any group one firm – however they will not be compared in the same tables.

However, the rankings provided by group two respondents have a lower weighting than those of group one when calculating the total scores (see details below under Calculation Method).

RESPONSE VALIDATION

A global entity is only allowed to rank its counterparties once for each region (i.e. two people from Bank X cannot rank its counterparties in the same category and same region). A global entity can rank its top counterparties in each category, for either one, two or all three regions.

If ISF receives multiple responses from the same entity for the same region we will ask the global head of the business to choose which should be used (Global Investor/ISF reserves the right to make the decision after reasonable efforts are made to get a decision).

Respondents are encouraged to rank as many counterparties in as many categories as possible. However, there is no minimum number required for the response to be valid and no categories are mandatory – e.g. a firm could choose to only rank their top 4 Group Two counterparties if they only use 4 from the approved list.

Responses are not permitted if they are submitted via one of the counterparties being ranked. IP addresses for all responses will be checked.

WINNERS AND HIGHLY COMMENDED

In line with the objective of recognising excellence in the industry, winners will be announced for the lenders and borrowers ranked highest by their counterparties.

In addition, a select group of firms will be declared highly commended. These are the borrowers and lenders that secured the next highest scores after the winners. For both group one and two a list of highly commended firms will also be published.

Winners and highly commended lists will be declared for the firms ranked highest on average for the following methodologies:

- Global overall
- Global categories
- Regional overall
- Regional categories

This list will be replicated for four groups:

- Group one lenders
- Group one borrowers
- Group two lenders
- Group two borrowers

QUALIFICATION

Fundamentally, winners and highly commended lists are calculated by the total amount of points accumulated. This means that only the most-qualified firms will be published.

CALCULATION METHOD

Unweighted

All respondents (groups one and two) are asked to rank their top seven counterparties in both groups for each category, in each region. The rankings are then inverted to provide scores (i.e. a number one rank produces a score of seven).

These scores are then added together and the firm with the highest total score is declared the winner (it does not matter which firm is ranked number one by the most counterparts). The counterparties with the next highest scores are declared highly commended.

Being ranked by a group one respondent results in a full score; being ranked by a group two counterpart results in 50% of the inverted score being added to the total.

Rank	Group one respondent score	Group two respondent score
1	7	3.5
2	6	3
3	5	2.5
4	4	2
5	3	1.5
6	2	1
7	1	0.5

Weighted by importance

In the survey questionnaire, respondents are asked to rank the categories according to how important they consider that attribute to be. These ranks are combined to provide weightings theoretically between 0 and 2 (but are likely to be much less extreme) for each category.

For example, if relationship management is considered very important by respondents and generates a weighting of 1.5, and Bank X achieves a score of 25 in that category, 37.5 will be added to the overall score (1.5 x 25 = 37.5).

These weightings are calculated on a global basis and applied to all overall tables (even if there is a disparity between how important attributes are between the regions).

Therefore the combined scores are calculated as follows:

- Regional categories: All scores for the relevant category, for the relevant region, are simply added together.
- Global categories: All scores for the relevant category, for every region, are added together.
- Regional overall: Regional category scores are weighted by importance and then added together to create an overall score for that region.
- Global overall: Global category scores are weighted by importance and then added together to create an overall score for the entire globe.

CATEGORIES & OPERATIONS SUB-CATEGORIES

When respondents rank counterparties they are asked to do so for nine categories including three operations categories. However, the three operations categories are combined into one operational efficiency category for the purposes of creating overall tables (global overall and regional overall).

Therefore, when calculating overall scores (combining categories) the operations scores count for one third as much as each of the other categories.

Likewise, when respondents are asked to rank the categories by importance the operations categories are combined into a single operational efficiency category.

Lenders rating borrowers

1. Breadth of demand – including general international markets, exclusives, corporate actions and emerging markets
2. Stability of demand – including overnight balance and term balance
3. Collateral funding capabilities
4. Trading capability – including idea generation, product knowledge and automation
5. Relationship management – including senior management engagement, trading desk engagement, sales desk engagement and coordination/communication between internal desks globally
6. Operational efficiency
   a. Trading connectivity & automation
   b. Trade matching and settlement
   c. Dividend collection and fees & billing
7. Reliability, connectivity and communication throughout the Covid crisis

Borrowers rating lenders

1. Breadth of supply – including general international markets, exclusives, corporate actions and emerging markets.
2. Stability of supply – including recall frequency and transparency around stability
3. Trading capability – including idea generation, product knowledge and automation
4. Collateral funding capabilities
5. Relationship management – including senior management engagement, trading desk engagement, sales desk engagement and coordination/communication between internal desks globally
6. Operational efficiency
   a. Trading connectivity & automation
   b. Trade matching and settlement
   c. Dividend collection and fees & billing
7. Reliability, connectivity and communication throughout the Covid crisis

VOTING CATEGORIES

In addition to ranking counterparties, respondents are invited to nominate individuals for our lifetime achievement award and elaborate on why their nomination should receive this accolade.

The 'Most Innovative' awards are calculated as in previous years from the highest total votes.

- Lifetime achievement award
- Most innovative borrower of the year (Group One)
- Most innovative borrower of the year (Group Two)
- Most innovative lender of the year (Group One)
- Most innovative lender of the year (Group Two)

DATA PROVIDER VOTING

We are also asking all respondents (both borrowers and lenders) to score their securities lending data vendors (DataLend, IHS Markit Securities Finance and FIS Astec Analytics) while completing each region of the equity lending survey.

We kindly ask respondents to respond for all vendors that they are using.

ISF EQUITY LENDING SURVEY 2021 METHODOLOGY

The scores will be across 7 categories.
- Breadth/coverage of data
- Speed/frequency of data
- Reliability of data
- Client service - helpdesk responsiveness
- Innovation
- Usability & interaction
- Reliability, connectivity and communication throughout the Covid crisis

For voters with one data source, please rate it between 1 for unacceptable to 7 for excellent.

The scores will be averaged to provide global, regional and category scores for the qualifying data providers. These will be published in separate tables alongside the equity lending survey.

For voters with two or three data sources, please rank them on each category for a comparative result in each area.

Minimum qualification requirements for the data vendors:
Global tables: qualification in two regions
Regional tables: 7 votes for Americas, 7 votes for EMEA, 5 votes for Asia-Pacific
Category tables: qualification in two regions .

FIXED INCOME

The ISF Fixed Income Lending Survey 2021 is designed to identify excellence in the industry, and is designed to complement the highly regarded and longstanding Equity Lending Survey.

Borrowers are invited to rank their lending counterparties.

Respondents are asked to rank their top counterparties in each of the categories separately for each region.

There are three geographical regions. Global entities are asked to rate their counterparties for every relevant region: Europe, Middle East & Africa (EMEA), the Americas and Asia Pacific.

Regions are defined by where the underlying securities originate (not where either the respondent or counterparty is based). Therefore, global entity Borrower X is asked to rank its top counterparties, in each category, for every region where the fixed income securities that it trades originate.

Overall scores are defined as ones where all the category scores are combined (there are global overall scores and regional overall scores)

Global scores are defined as ones where scores from all regions are combined (there are global overall scores and global category scores).

All entities that meet the qualification criteria are included in the appropriate tables regardless of whether the entity actively participated in the survey (i.e. helped to circulate the survey in the industry).

RESPONSE VALIDATION

A global entity is only allowed to rank its counterparties once for each region (i.e. two people from Borrower X cannot rank its counterparties in the same category and same region). A global entity can rank its top counterparties in each category, for either one, two or all three regions.

If ISF receives multiple responses from the same entity for the same region we will ask the global head of the business to choose which should be used (ISF reserves the right to make the decision after reasonable efforts have been made).

Respondents are asked to rank seven counterparties in as many categories as possible. However, there is no minimum number required for the response to be valid and no categories are mandatory.

Responses are not permitted if they are submitted via one of the counterparties being ranked. IP addresses for all responses will be checked.

WINNERS AND HIGHLY COMMENDED

In line with the objective of recognising excellence in the industry, winners will be announced for the lenders ranked highest by their counterparties.

In addition, a select group of firms will be declared highly commended. These are the lenders that secured the next highest scores after the winners.

Winners and highly commended lists will be declared for:
- Global overall
- Global categories
- Regional overall
- Regional categories

CALCULATION METHOD

Respondents are asked to rank their top seven counterparties. These rankings are then inverted to create scores.

These scores are then added together and the firm with the highest total score is declared the winner (it does not matter which firm is ranked number one by the most counterparts). The counterparties with the next highest scores are declared highly commended.

All respondents are asked to rank their top seven counterparties for each category, in each region. The rankings are then inverted to provide points awarded (i.e. a number one rank produces a score of seven).

Rank	Score
1	7
2	6
3	5
4	4
5	3
6	2
7	1

TECHNOLOGY & VENDOR

All securities finance market participants are invited to rate three types of technology provider: securities finance trading platform, post-trade service and software solutions.

Respondents are asked to rate these providers between 1 (unacceptable) and 7 (excellent) across several service categories. Six of these categories are the same for each of the provider types and three or four categories are unique to each.

TABLES

The responses of borrowers and lenders are combined, averaged and presented in an overall table for each technology provider type.

There will be regional tables for EMEA, Asia-Pacific and the Americas. The respondent's specified location will determine the region of the response.

A firm will need to qualify in at least 2 of the 3 regions to qualify for the overall table.

There will also be category tables to highlight areas of excellence among qualifying firms.

Trading Platform will have both unweighted and weighted overall tables.
Unweighted will be the average score divided by the number of responses – as has been the case in previous years.

Weighted tables will apply a multiplier to a respondents vote based on the approximate annual balances on that platform as follows:

Approximate annual balance of respondent (%)	Weighting multiplier
0-25	0.7
25-75	1.0
75-100	1.3

QUALIFICATION FOR SECURITIES FINANCE TRADING PLATFORM AND POST-TRADE SERVICES:

Overall
Firms need a minimum of 12 responses to qualify overall. The firm must also qualify in a minimum of two regions (EMEA, Asia-Pacific, Americas). If two or more people from the same entity rate the same provider in the same region, the ratings will be averaged and the responses will count as a single response for qualification and table calculation purposes.

Regional
For regional tables the qualification requirements are 7, 7 and 5 responses for EMEA, Americas and Asia Pacific respectively.

QUALIFICATION FOR SOFTWARE SOLUTIONS

Overall
Firms need a minimum of 10 responses to qualify overall. The firm must also qualify in a minimum of two regions (EMEA, Asia-Pacific, Americas). If two or more people from the same entity rate the same provider in the same region, the ratings will be averaged and the responses will count as a single response for qualification and table calculation purposes.

Regional
For regional tables (EMEA, Asia-Pacific, Americas) firms need a minimum of 5 responses to qualify.

CATEGORIES

The following six categories are applied to all three technology provider types:
- ROI/Value-for-money
- Ease of integration
- User interface – including system responsiveness/speed
- Client service & responsiveness/relationship management
- Innovation
- Reliability, connectivity and communication throughout the Covid crisis

In addition, each type of technology has unique categories

Securities Finance Trading Platform
- Footprint/breadth of functionality – including available inventory management
- Reliability of platform
- Order management/STP process
- Post trade/lifecycle management

Post-trade Services
- Reconciliation ability (including overnight versus intraday processing)
- Proportion of STP/Effectiveness of trade lifecycle processing
- Market connectivity

Software Solutions
- Inventory management/collateral optimisation
- Connectivity (e.g. to external infrastructure, internal systems)
- Front to back lifecycle support (e.g. margin calls, corporate actions, settlement, trade lifecycle event automation, reporting)

PRACTICALITIES & DISCLAIMER

Respondents could re-enter their survey form after completion. Even if the form was finished and submitted, the respondent could revise their answers until the final deadline.

All responses are strictly confidential. Borrowers and lenders will never be able to find out which counterparts ranked them.

ISF reserves the right to amend the methodology or invalidate results in the event of genuine anomalies – however we will remain transparent and publicise if this is ever the case.

Fund managers adapt to life under new margin rules

Some weeks after the latest phase of the uncleared margin rules took effect, firms at the heart of that process said the implementation went well but there are still plenty of clients to onboard, and the next round in September next year will be a much larger undertaking.

The fifth phase of the uncleared margin rules (UMR) was introduced on September 1, meaning firms with more than $50bn (£36bn) of uncleared swaps had to start posting margin against those positions.

This latest phase is note-worthy because the lower threshold means that fund managers are in scope for the first time.

Historically, fund managers have had little interest in such matters and leant on their custodians to keep them on the right side of the law but this time round the onus for compliance is largely on the client.

Banks like BNY Mellon are supporting their asset manager, hedge fund and pension fund customers by providing the infrastructure for compliance and links to margin hubs like LCH SwapAgent.

Ted Leveroni, managing director at BNY Mellon, said "the implementation was challenging and successful in equal measure".

"The fact the threshold was set at $50bn enabled firms to prioritise which accounts to open by September and which could wait. This allowed us to focus on the largest accounts and counterparties, and turn what could have been one massive wave into a large wave with a steady flow after that," Leveroni said.

BNY said it has so far switched on "several thousands of accounts" which represents the "majority of accounts in scope". Leveroni said this posed operational challenges but the bank implemented internal changes to support the increased demand.

The DTCC's Margin Transit Utility is a key piece of market structure to enable firms like BNY and State Street, which linked its collateral service to the MTU in August, to post margin on behalf of their clients.

Bob Stewart, executive director of institutional trade processing (ITP) at DTCC, said: "Interest accelerated in the past four to six weeks as more market participants approached us asking what we had to offer. On the implementation date of September 1, a number of new clients signed up for the service to help facilitate the movement of their collateral."

Stewart added: "We haven't seen huge volumes because that is dependent on how the clients trade and the market moves but they are clearly preparing themselves to use tools that aid in the overall processing of collateral."

Stewart believes margin volumes will pick-up when we enter the next wave of volatility as asset managers and hedge funds have to trade to hedge their positions.

There is a feeling firms may have been limiting their use of the derivatives that count towards their UMR totals to ensure they are not bound by the rules.

Stewart said: "I get the sense that, since implementation of phase five, clients have reduced activity slightly but fundamentally if you have a strategy, you have a strategy and you need to move forward on it. So if there has been a pull-back, I think that will be short-term to get a better sense of how everything works."

Ankeet Dedhia, Americas head of FX product at ForexClear, part of LCH, said firms have long been adapting their trading strategies to avoid the margin rules. He said his foreign exchange clearing service saw volumes increase ten-fold in 2016 as banks started to clear their FX options and non-deliverable forwards rather than trade in the over-the-counter market and have them count against their UMR totals.

Dedhia said: "We expect to see a similar trend on the buy-side – we are already seeing early signs of this trend since a record number of clearing brokers have onboarded to ForexClear in 2021 to enable buy-side clearing, with more clearing brokers expected to onboard in Q4 2021 and 2022."

He added: "We also have some asset managers and regional banks who have onboarded and have started clearing FX in 2021, while many others, including some hedge funds are in regular discussion about FX clearing, and looking for solutions to reduce UMR margin costs, counterparty credit risk and streamline their operational workflows."

Phase five, then, has gone relatively well but the consensus is that next year's final phase, when the threshold drops to just $8bn, will be more challenging.

Dedhia said: "A recent ISDA (International Swaps and Derivatives Association) report estimated that around 315 buy-side firms will be impacted in phase five of UMR implementation and about 775 in phase six, so the bigger impact will likely be next year." ■

> "The implementation was challenging and successful in equal measure."
>
> **Ted Leveroni, managing director at BNY Mellon**

DTCC

TOP 6 WAYS TO ENSURE SUCCESSFUL FAILS PREVENTION AND AVOID CSDR PENALTIES

The upcoming Central Securities Depositories Regulation's (CSDR) Settlement Discipline Regime (SDR) will impose new measures to prevent settlement failure such as cash penalties for failing and/or late matching trades, and mandatory buy-ins. Given these new, potentially large, impacts of a failed trade — the time is now to maximize your current investments in Institutional Trade Processing's suite of services and to focus efforts on the prevention of failure.

PRE-TRADE ENRICHMENT

1 **Utilize the ALERT® platform,** the industry's largest and most compliant central database of standing settlement and account instructions (SSIs) and provide automatic enrichment of those SSIs on a matched trade when used in conjunction with CTM™.

2 **Take advantage of ALERT's Global Custodian Direct (GCD) workflow,** a fully custodian or prime broker managed workflow ensuring SSIs in the system come directly from and are maintained by source data providers.

3 **Upgrade your traditional ALERT enrichment capabilities by accessing our ALERT Key Auto Select (AKAS) functionality,** a seamless (and free) rules-based enrichment of CTM trades eliminating the need to provide ALERT Keys (Country, Method, Security) as part of the trade information.

ALERT

10.7M+
SSIs

1,800+
Investment Managers

1,300+
Brokers

ALERT GCD

9
Global Custodians Live

3
Regional Custodians & Trust Banks Live

54%
GCD has helped sell-side firms realize up to a 54% reduction in SSI related fails*

0%
Buy-side firms have driven their SSI related fails down to almost 0% by using GCD*

**A Roadmap to SSI Automation: How an SSI Utility Benefits All Participants*

TRADE DATE AGREEMENT

4 **Achieve straight through processing via CTM,** the industry's standard for central matching, by agreeing to the economics, place of settlement (PSET) and associated SSIs on trade date, allowing you to resolve any trade exceptions in a timely fashion.

SETTLEMENT & EXCEPTION MANAGEMENT

5 **Prevent penalties under CSDR through centralized trade exception management with DTCC Exception Manager,** quickly resolving exceptions and reducing delays in settlement.

DATA & ANALYTICS

6 **Gain a better understanding of who your higher risk counterparties are by leveraging ITP Data Analytics,** allowing you to identify potential missed trade affirmations in order to prevent fails.

CTM

165.8M
Trades Processed in 2020

95%
Average Same Day Matching Rate

1,562
Investment Managers

1,239
Brokers

DTCC EXCEPTION MANAGER

28
Organizations (brokers, prime brokers and custodians) submitting accurate data directly to the platform

212
Counterparty Pairings

Community includes investment managers, brokers, custodians, prime brokers, and outsourcers

ITP DATA ANALYTICS

100%
CTM client coverage

93.54%
Average same day match agreement for European trades in March 2021

€ 524B
Notional delta between what was entered on trade date but not affirmed on trade date in March 2021

WANT TO LEARN MORE? VISIT DTCC.COM/CSDR
See how DTCC's ITP suite of services can reduce your risk of trade fails, minimizing the impact of CSDR.

WANT TO LEARN MORE AOBUT DTCC CONSULTING SERVICES? VISIT DTCC.COM/CONSULTING
Need support implementing the ITP suite of services at your organization? We'll help you rethink your post-trade operating model.

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JP MORGAN

JP Morgan has won the global weighted category for the third year running. The US banking giant had the highest global total of 20.13 and the top global average of 6.82 in the weighed section, which compared with a global average of 7.00 last year.

JP Morgan did well in the Americas where it returned a score of 8.01, a significant improvement on last year's 7.64 and way ahead of Citigroup with a 2021 score of 6.43. JP Morgan also won in the Asia Pacific where it scored 6.18 in the weighted category, up slightly on last year's 6.16.

In Europe, the Middle East and Africa, JP Morgan came behind Citigroup with a score of 5.94 which was down on last year's 6.88.

JP Morgan won in 20 of the 21 categories in the weighted section while the 21st (commission recapture) returned no scores from any participants.

The US bank was the top-rated supplier by global total and global average in the weighted section where respondents used multiple custodians and a single custodian.

CITI

Citi came second behind JP Morgan for the second year running in the overall weighted global totals and global averages. The US bank scored 18.37 in the global total, which was down slightly on last year's 19.16, and 6.23 in the global averages which was also off slightly on last year's 6.39.

Citi was top-rated in Europe, Middle East and Africa where it had an average of 6.76, which beat JP Morgan into second and was an improvement on last year's 6.32.

Citi was second in the Americas with 6.43, which was slightly down on last year's 6.50, and was third in the Asia Pacific with 5.18.

The US banking group was top in the Europe, Middle East and Africa region weighted category for firms that use multiple custodians with a score of 6.88. Citi was second in the Americas behind JP Morgan where scores have been weighted from firms that use multiple custodians.

Citi was top in Europe, the Middle East and Africa and second in the Americas in the weighted grouping where respondents use a single custodian. The US firm was also second in the Americas in the unweighted category for firms that use a single custodian.

PICTET

Pictet came third in the overall global averages in the weighted list and second in the overall global averages for the unweighted section.

The firm scored 5.60 in the weighted overall global averages, which was down on last year's 5.65, and 6.22 in the unweighted global averages overall section, compared to 6.39 last year which made it the top custodian in the overall unweighted section by global averages.

Pictet tends to do well in the unweighted section which reflects the nature of its client base.

The firm was second in the multiple custodian unweighted global averages with a score of 6.01 which was behind only RBC Investor & Treasury Services. Pictet was second behind RBC in EMEA and the Americas for the multiple custodian unweighted scores, and second behind Citi in the multiple custodian weighted EMEA category.

BNP PARIBAS

The French bank finished third in the overall unweighted global averages with a score of 5.86, which was an improvement on last year's 5.47. This put BNP behind RBC Investor & Treasury Services and Pictet but ahead of Citi and JP Morgan which tend to score less well in the unweighted categories.

BNP was rated third in Europe, the Middle East and Africa based on unweighted scores with an average of 5.79 and fourth in the Asia Pacific with a score of 5.70.

The French bank was third in the unweighted EMEA list for firms using multiple custodians with a score of 5.79 and third in the global averages with a score of 5.90 though this was based only on the firm's score in EMEA.

OVERALL (WEIGHTED)

COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNP Paribas	5.11	-	4.83	9.94	5.22
Citi	**6.76**	6.43	5.18	18.37	6.23
JPMorgan	5.94	**8.01**	**6.18**	**20.13**	**6.82**
Pictet	5.54	5.79	5.44	16.77	5.60
RBC Investor & Treasury Services	4.59	4.46	3.73	12.78	4.40

OVERALL (UNWEIGHTED)

COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNP Paribas	5.79	-	5.70	11.49	5.86
Citi	5.52	5.82	5.57	16.91	5.66
JPMorgan	5.71	5.67	6.22	17.60	5.84
Pictet	6.26	5.99	6.66	18.91	6.22
RBC Investor & Treasury Services	**6.30**	**6.84**	**7.00**	**20.14**	**6.63**

RBC INVESTOR & TREASURY SERVICES

The custody arm of the Canadian bank scores strongly in the unweighted categories which reflects the fact that RBC is strong with smaller and medium sized clients.

RBC came top of the unweighted global totals with a score of 20.14, up from last year's 18.92, and the unweighted global averages with a score of 6.63, which compared to 6.16 last year.

In the unweighted category, RBC won in EMEA with a score of 6.30, in the Americas with 6.84 and in Asia Pacific with 7.00.

RBC Investor & Treasury Services won in five of the unweighted categories, which were the only five categories were it returned a score.

The Canadian firm was also the top-rated firm in the unweighted section for firms using multiple custodians, with a score of 6.46, beating Pictet's 6.01.

RBC was top for the unweighted multiple custodian section for EMEA with a score of 6.16 and top for the unweighted multiple custodian in Americas list with a score of 6.90. RBC did not return a score for Asia Pacific.

The bank was the top-rated firm in the unweighted category for firms using a single custodian in EMEA with a score of 6.75, in the Americas with 6.79 and in Asia Pacific with 7.00. RBC also had the highest global total of 20.54 in the unweighted single custodian category and the highest global average of 6.83.

BNY MELLON

The world's largest custodian, which did not feature in the global overall weighted and unweighted sections, returned the highest global average of 7.21 in the weighted section of firms that use multiple custodians in the Americas behind JP Morgan and Pictet.

Again, BNY Mellon returned no score in EMEA or Asia, and came second in the global averages among weighted mutual fund clients with a score of 8.67, behind Pictet with 9.37.

In the unweighted mutual fund table, BNY Mellon came top in the Americas with 6.22, had no score in EMEA and Asia, and came seventh out of seventh in the global averages with an average score of 5.55.

OVERALL SERVICE CATEGORIES (WEIGHTED)

COMPANY NAME	CASH MANAGEMENT	CLASS ACTIONS	CLIENT SERVICES	COMMISSION RECAPTURE	CORPORATE ACTIONS	COVID CRISIS MANAGEMENT
BNP Paribas	4.76	-	5.26	-	4.90	5.24
Citi	5.79	-	6.10	-	5.76	6.61
JPMorgan	**6.16**	**6.46**	**7.10**	-	**7.10**	**7.32**
Pictet	5.19	5.17	5.84	-	5.42	5.49
RBC Investor & Treasury Services	4.32	-	4.43	-	-	-

OVERALL SERVICE CATEGORIES (WEIGHTED)

COMPANY NAME	DERIVATIVES	EXECUTION SERVICES	FOREIGN EXCHANGE SERVICES	FUND ACCOUNTING INVESTMENT ACCOUNTING	INCOME COLLECTIONS
BNP Paribas	-	5.13	-	-	4.97
Citi	-	6.12	5.23	-	6.00
JPMorgan	**6.63**	**7.22**	**6.75**	**7.23**	**6.88**
Pictet	-	5.30	4.82	5.24	5.57
RBC Investor & Treasury Services	-	-	-	-	-

OVERALL SERVICE CATEGORIES (WEIGHTED)

COMPANY NAME	INDUSTRY KNOWLEDGE & INFLUENCE	INNOVATION & TECHNOLOGY INVESTMENT	NETWORK	PERFORMANCE MEASUREMENT	RELATIONSHIP MANAGEMENT
BNP Paribas	-	-	-	-	5.33
Citi	6.09	6.16	6.28	-	6.47
JPMorgan	**7.35**	**7.14**	**7.21**	**7.37**	**7.35**
Pictet	5.45	-	5.20	-	5.60
RBC Investor & Treasury Services	4.28	-	-	-	4.41

OVERALL SERVICE CATEGORIES (WEIGHTED)

COMPANY NAME	REPORTING	RISK MANAGEMENT	SAFETY OF CLIENT ASSETS	SETTLEMENTS	TAX SERVICES
BNP Paribas	5.33	-	5.31	5.13	4.77
Citi	6.19	-	6.60	6.01	5.30
JPMorgan	**6.96**	**7.46**	**7.43**	**7.17**	**6.17**
Pictet	5.28	5.01	5.28	5.54	-
RBC Investor & Treasury Services	-	-	4.29	-	-

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assetservices.pictet

PICTET
1805
Building Responsible Partnerships

NORTHERN TRUST

Northern Trust came fifth out of seven in the multiple custodian weighted category in the Americas with a score of 5.92, and returned no score in EMEA or the Asia Pacific. In that category, Northern Trust came third overall with a score of 6.47, behind BNY Mellon and JP Morgan.

The custodian came third in the unweighted category in Europe, the Middle East and Africa where the responses are from pension funds with a score of 5.03. The US bank did not return a score in the Americas or Asia Pacific and came fourth in a list of four globally.

In the weighted pension funds table, Northern Trust came top in EMEA and returned no score in the Americas or Asia which put it top globally above JP Morgan, Pictet and RBC by global averages.

In the weighted table for firms that have more than $3bn under management, Northern Trust returned no score in Europe or Asia, and scored 5.92 in the Americas. In that same section, Northern Trust recorded a global average of 6.47.

STATE STREET

The US custodian, which unveiled in September its plan to acquire Brown Brothers Harriman, returned a score of 6.00 in the Americas for the weighted multiple custodian category, which placed that firm behind JP Morgan, Citi and BNY Mellon. The US bank returned no score in EMEA or Asia Pacific in the weighted multiple custodian category, nor in any of the other headline categories.

State Street was fourth in the Americas for the weighted and unweighted sections for mutual fund clients, and returned no score for EMEA and Asia. For firms with assets under management greater than $3bn, State Street was fifth in the Americas in the weighted and unweighted sections, and returned no score in Europe and Asia. ■

OVERALL SERVICE CATEGORIES (UNWEIGHTED)

COMPANY NAME	CASH MANAGEMENT	CLASS ACTIONS	CLIENT SERVICES	COMMISSION RECAPTURE	CORPORATE ACTIONS	COVID CRISIS MANAGEMENT
BNP Paribas	5.73	-	6.00	-	5.46	6.28
Citi	5.37	-	5.75	-	5.58	6.12
JPMorgan	5.28	5.57	6.01	-	5.85	6.14
Pictet	6.17	**6.12**	6.66	-	**6.23**	**6.37**
RBC Investor & Treasury Services	**6.53**	-	**6.86**	-	-	-

OVERALL SERVICE CATEGORIES (UNWEIGHTED)

COMPANY NAME	DERIVATIVES	EXECUTION SERVICES	FOREIGN EXCHANGE SERVICES	FUND ACCOUNTING INVESTMENT ACCOUNTING	INCOME COLLECTIONS
BNP Paribas	**6.17**	-	-	5.69	-
Citi	-	5.88	5.03	-	5.70
JPMorgan	5.53	6.09	5.64	5.95	5.81
Pictet	-	**6.48**	**5.87**	**6.30**	**6.47**
RBC Investor & Treasury Services	-	-	-	-	-

OVERALL SERVICE CATEGORIES (UNWEIGHTED)

COMPANY NAME	INDUSTRY KNOWLEDGE & INFLUENCE	INNOVATION & TECHNOLOGY INVESTMENT	NETWORK	PERFORMANCE MEASUREMENT	RELATIONSHIP MANAGEMENT
BNP Paribas	-	-	-	**6.15**	-
Citi	5.66	5.62	5.83	-	6.06
JPMorgan	6.12	**5.92**	6.18	6.09	6.22
Pictet	6.55	-	**6.31**		6.58
RBC Investor & Treasury Services	**6.62**	-	-	-	**6.82**

OVERALL SERVICE CATEGORIES (UNWEIGHTED)

COMPANY NAME	REPORTING	RISK MANAGEMENT	SAFETY OF CLIENT ASSETS	SETTLEMENTS	TAX SERVICES
BNP Paribas	5.83	-	6.08	5.85	**5.47**
Citi	5.76	-	6.13	5.63	4.83
JPMorgan	5.95	5.96	6.18	6.08	5.28
Pictet	**6.15**	**6.21**	**6.48**	6.37	-
RBC Investor & Treasury Services	-	-	-	**6.58**	-

GLOBAL CUSTODY SURVEY 2021

MULTIPLE CUSTODIAN (WEIGHTED)

COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNP Paribas	5.11	-	-	-	5.44
BNY Mellon	-	6.51	-	-	7.21
Citi	6.88	6.39	4.92	18.19	6.10
JPMorgan	6.00	7.87	6.26	20.13	6.91
Northern Trust	-	5.92	-	-	6.47
Pictet	6.44	5.79	-	12.23	6.30
RBC Investor & Treasury Services	4.94	4.81	-	9.75	4.77
State Street	-	6.00	-	-	6.00

MULTIPLE CUSTODIAN (UNWEIGHTED)

COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNP Paribas	5.79	-	-	-	5.90
BNY Mellon	-	5.08	-	-	4.90
Citi	5.50	5.61	5.53	16.64	5.55
JPMorgan	5.59	5.65	6.26	17.50	5.78
Northern Trust	-	4.66	-	-	4.78
Pictet	6.02	5.99	-	12.01	6.01
RBC Investor & Treasury Services	6.16	6.90	-	13.06	6.46
State Street	-	4.92	-	-	5.19

SINGLE CUSTODIAN (WEIGHTED)

COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
Citi	6.57	6.52	-	13.09	6.53
JPMorgan	5.81	8.64	6.06	20.51	6.61
Pictet	4.41	-	3.47	7.88	4.22
RBC Investor & Treasury Services	3.55	4.20	3.76	11.51	3.93

SINGLE CUSTODIAN (UNWEIGHTED)

COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
Citi	5.54	6.31	-	11.85	5.91
JPMorgan	5.96	5.76	6.14	17.86	5.98
Pictet	6.57	-	6.91	13.48	6.64
RBC Investor & Treasury Services	6.75	6.79	7.00	20.54	6.83

PENSION FUND (WEIGHTED)

COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
JPMorgan	6.06	-	7.64	13.70	6.85
Northern Trust	7.57	-	-	-	7.57
Pictet	5.34	-	-	-	5.34
RBC Investor & Treasury Services	-	-	3.76	-	3.60

PENSION FUND (UNWEIGHTED)

COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
JPMorgan	4.85	-	6.22	11.07	5.54
Northern Trust	5.03	-	-	-	5.03
Pictet	6.60	-	-	-	6.60
RBC Investor & Treasury Services	-	-	7.00	-	6.96

INSURANCE COMPANY (WEIGHTED)

COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
Citi	-	7.57	-	-	7.08
RBC Investor & Treasury Services	-	5.15	-	-	4.65

INSURANCE COMPANY (UNWEIGHTED)

COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
Citi	-	5.62	-	-	5.62
RBC Investor & Treasury Services	-	7.00	-	-	6.20

HEDGE FUND (WEIGHTED)

COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
Pictet	-	3.33	-	-	3.33

HEDGE FUND (UNWEIGHTED)

COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
Pictet	-	7.00	-	-	7.00

BANK/BROKER DEALER (WEIGHTED)

COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNP Paribas	2.66	-	-	-	2.66
Citi	-	**6.41**	-	-	**5.96**
JPMorgan	-	-	**4.70**	-	5.44
RBC Investor & Treasury Services	**5.50**	-	-	-	5.04

BANK/BROKER DEALER (UNWEIGHTED)

COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNP Paribas	5.58	-	-	-	5.58
Citi	-	**6.29**	-	-	5.82
JPMorgan	-	-	**6.28**	-	6.14
RBC Investor & Treasury Services	**6.61**	-	-	-	**6.71**

MUTUAL FUND/UCITS (WEIGHTED)

COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNP Paribas	4.37	-	-	-	5.39
BNY Mellon	-	7.99	-	-	8.67
Citi	**5.89**	-	**6.63**	12.52	6.21
JPMorgan	5.33	**8.60**	-	**13.93**	7.49
Northern Trust	-	7.17	-	-	7.17
Pictet	-	8.53		-	**9.37**
State Street	-	7.22	-	-	7.22

MUTUAL FUND/UCITS (UNWEIGHTED)

COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNP Paribas	**5.96**	-	-	-	**6.30**
BNY Mellon	-	**6.22**	-	-	5.55
Citi	5.60	-	**5.51**	11.11	5.64
JPMorgan	5.43	6.13	-	**11.56**	5.90
Northern Trust	-	5.61	-	-	5.61
Pictet	-	6.19	-	-	6.14
State Street	-	5.63	-	-	5.63

ASSETS UNDER MANAGEMENT GREATER THAN $3BN (WEIGHTED)

COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNP Paribas	**7.17**	-	-	-	6.85
BNY Mellon	-	6.51	-	-	7.21
Citi	6.89	7.21	6.38	20.48	6.92
JPMorgan	6.31	**8.01**	**7.30**	**21.62**	**7.29**
Northern Trust	-	5.92	-	-	6.47
Pictet	6.70	7.39	-	14.09	7.06
RBC Investor & Treasury Services	6.65	-	-	-	6.78
State Street	-	6.00	-	-	6.00

ASSETS UNDER MANAGEMENT GREATER THAN $3BN (UNWEIGHTED)

COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNP Paribas	5.72	-	-	-	5.94
BNY Mellon	-	5.08	-	-	4.90
Citi	5.50	5.65	5.54	16.69	5.57
JPMorgan	5.70	5.67	**6.42**	**17.79**	5.86
Northern Trust	-	4.66	-	-	4.78
Pictet	6.13	**5.85**	-	11.98	6.05
RBC Investor & Treasury Services	**6.68**	-	-	-	**6.71**
State Street	-	4.92	-	-	5.19

ASSETS UNDER MANAGEMENT LESS THAN $3BN (WEIGHTED)

COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNP Paribas	3.46	-	-	-	3.32
Pictet	**3.71**	3.80	-	7.51	3.70
RBC Investor & Treasury Services	3.36	**4.01**	**3.73**	**11.10**	**3.72**

ASSETS UNDER MANAGEMENT LESS THAN $3BN (UNWEIGHTED)

COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNP Paribas	5.84	-	-	-	5.77
Pictet	**6.48**	6.15	-	12.63	6.45
RBC Investor & Treasury Services	6.08	**6.84**	**7.00**	**19.92**	**6.60**

Global Custody Survey 2021 – *methodology*

SYNOPSIS

Asset managers, asset owners and banks are asked to rate their global custodians.

Results for custodians that qualify will be published regardless of whether or not they actively participated in the survey

CATEGORY TABLES

There are 21 service category tables. Each of these categories is broken down into sub-categories, on which the global custodians are actually rated by respondents

Respondents are asked to rate their global custodians from 1 (very poor) to 7 (flawless) in each of the sub-categories (see list below). The scores of these sub-categories are combined to create an overall score for that service category.

For example, for the tax services category, respondents are asked to rate global custodians in three sub-categories: efficiency of obtaining tax relief at source; efficiency of reclaiming taxes; and solicitation of timely tax documentation. Each of the sub-categories is given an equal weighting and combined to create a table for tax services to be published in the magazine.

The all responses category tables, both raw data and weighted, will appear in the magazine, but others such as for multiple custodian may only be available online.

TABLES

Global custodians' results are presented in alphabetical order with the winning score in each column highlighted. There are two global columns – global total and global average. There are three regional columns for Emea, the Americas and Asia Pacific (defined by where the respondent is based).

There will be at least six tables published in the magazine:

- All responses (weighted & raw data)
- Multiple custodian (weighted & raw data)
- Single custodian (weighted & raw data)
- Other heatmaps are published at the discretion of Global Investor/ISF, depending on the editorial value they represent, in print and/or online

CALCULATION METHODS

Raw data

The Raw data tables (labelled unweighted in previous surveys) simply contain an average of the relevant scores of the category tables (which are themselves averages of the sub-category scores). Each category is assigned an equal weighting, regardless of how many sub-categories there are for that category or how important they are considered by respondents.

Weighted

The weighted tables contain a two stage calculation process for the first time, combing stages that allow for the respondents AuM and the importance that the respondents attach to each service category.

Stage 1: Weighted by AuM: The first stage attributes greater weight to the ratings of respondents with larger amount assets under management (AuM). Each respondent is put into a quartile depending on its AuM. The scores of the respondent are then given a weighting based on this quartile. As the boundaries of each quartile are determined by all the responses received in this year's survey, the boundaries are unknown until the survey closes.

Note: This stage is the entire methodology of the weighted service category tables (as category importance is not relevant) and is the first stage of creating the weighted overall tables. The weighted category tables are published in print and online.

Criteria	Weighting
AuM in lowest quartile	0.5
AuM in middle two quartiles	1
AuM in the top quartile	1.5

Stage 2: Weighted by category importance. The respondents are asked to rank the service categories (not sub-categories) in order of importance. The core and value added categories are mingled in this list (i.e. some value added services may be considered more important than some core categories). An average is then created based on the rankings of all respondents. These weightings are then applied to the weighted (by AuM) service category tables to create the overall weighted tables.

The more important a category is considered, on average by all respondents, the greater the weight is attached to that category (and by extension all the sub-category scores in that category). Weightings are normalised around 1 to preserve comparability with the raw data scores.

QUALIFICATION CRITERIA

All responses tables

To be included in the global average and global total columns, a global custodian needs to qualify in at least two

geographical regions. Global custodians need to receive a minimum number of respondents to qualify for a region: 7 in the Americas; 7 in Emea; and 3 in Asia Pacific.

Multiple custodian tables

Only scores from respondents that deal with more than one custodian are included. To qualify for the global columns, a minimum of 6 responses and qualification in two regions is required. 3 responses are required for each of the regional columns.

Single custodian tables

Only scores from respondents that deal with one custodian are included. A minimum of 4 responses and qualification in two regions is needed to qualify for the global columns. 2 is required for each of the regional tables.

Bank/Broker Dealer, Mutual Fund/UCITS, Hedge Fund, Insurance Company, Pension Fund

A minimum of 4 responses and qualification in two regions is required to qualify globally. 2 responses are needed to qualify for a region. Scores from respondents that deal with multiple custodians and single custodians are included. Global Investor/ISF reserves the right to publish whichever tables it deems appropriate.

Respondents with AuM greater than $3bn tables

Only scores from respondents with assets under management of more than $3bn are included. A minimum of 6 responses and qualification in two regions is needed to qualify for the global columns. 3 is required for each of the regional tables.

Respondents with AuM less than $3bn tables

Only scores from respondent with assets under management of less than $3bn are included. A minimum of 6 responses and qualification in two regions is needed to qualify for the global columns. 3 is required for each of the regional tables.

Category tables

To qualify for a category a global custodian must reach the qualification criteria for the relevant heatmap table, i.e. for the all responses category table a global custodian must qualify in two regions. A respondent must rate the custodian in one or more of the sub-categories for it to be considered a legitimate response for the purposes of qualification for that category.

Valid responses

If different people from the same entity in the same region rate the same global custodian the responses are treated a single grouped response for the purposes of qualification. The two or more responses are averaged (where only one respondent rated the firm in for a particular sub-category this score is used unchanged).

CATEGORIES

Category (table published)	Sub-category (respondent rates)
Settlements	Efficiency of pre-settlement matching and reporting Failed trade management Straight through processing efficiency Competitiveness of cut off times Provision and scope of contractual settlements
Corporate Actions	Accuracy and timeliness of notifications Proxy voting services Provision of standing instructions Competitiveness of response cut off times
Income Collections	Accuracy and quality of income processing Quality of the assured income programme (contractual settlement income programme) Responsiveness and effectiveness of problem solving
Cash Management	Competitiveness of rates Integration of cash products (pooling, target balances etc) with custody solution (n/a for third-party relationships) Competitiveness of cut off times
Tax Services	Efficiency of obtaining tax relief at source Efficiency of reclaiming taxes Solicitation of timely tax documentation (n/a for third-party relationships)
Class Actions	Efficiency of reporting events Quality and efficiency of processing and paying proceeds
Reporting	Flexibility of delivery channels Quality and timeliness of Swift and other reporting Data strategy – near real time activity updates and enhanced activity throughout lifecycle
Client Services	Quality of subject matter expertise Responsiveness and effectiveness of enquiry management Availability and calling frequency
Relationship Management	Understanding of your business needs Ability to identify new product needs and solutions Quality of subject matter expertise Responsiveness and effectiveness of enquiry management
Network	Quality and timeliness of market information Access to market expertise Quality of network management resources Network management risk – monitoring sub-custodian credit risk and regulatory compliance
Risk Management	Credit risk Regulatory risk Market risk Information risk
Commission Recapture	Quality of services
Foreign Exchange Services	Competitiveness of rates offered Transparency of rates provided Transparency of reporting Quality of automated FX solutions
Fund / Investment Accounting	Quality & timeliness of NAV processing Quality of reporting
Performance Measurement	Quality of performance measurement services Timeliness and flexibility of reporting
Derivatives	Quality of exchange traded services Quality of OTC services
Industry Knowledge & Influence	Quality of reporting of regulatory changes and impacts Quality of subject matter expertise Engagement and leadership in shaping market practices and regulation
Execution Services	Quality and expertise in execution to custody services Quality of execution processing and reporting
Safety of client assets	Qualify and performance of depository function
Innovation & Technology Investment	Distributed leger technology Big data Cyber security Robotics process automation
Covid/Crisis Management	Operation resilience in crisis scenario Provision of regular market insights during covid crisis Support of client service, network and operational staff during covid crisis.

Note: Where a respondent ticks the n/a box, the sub-category is ignored when calculating the category score (i.e. for derivatives, if the respondent gives a score of 5 for quality of exchange traded services and ticks n/a for quality of OTC services, the score for derivatives is 5).

State Street targets LatAm, Japan with BBH acquisition

The chief executive of State Street has said the US group's plan to acquire Brown Brothers Harriman (BBH) Investor Services for $3.5 billion (£2.54 billion) is motivated by State Street's ambition to expand its coverage outside of the US. By **Perle Battistella**

Speaking in September, Ron O'Hanley, chairman and chief executive officer of State Street, said: "Given BBH Investor Services' global presence, that consolidation allows us to expand and deepen our international reach and key developed markets, like Japan. Enabling us to build a leading position in segments, such as non-domestic cross-bank assets in Europe, the Middle East and Africa (Emea) offshore, as well as in key growth markets such as Latin America (LatAm)."

O'Hanley said the US custody banking giant aims to be the number one asset servicing provider as BBH's $5.4 trillion in assets under custody will combine with State Street's $31.9 trillion.

The merger should consolidate State Street's position as the number two custodian by assets under custody behind BNY Mellon which had $45 trillion of asset at the end of June. J.P. Morgan reported assets for the same period of $32.1 trillion.

Eric Aboaf, executive vice president and head of Emea, said when the BBH takeover was announced in September: "This acquisition also adds expertise in cross-border funds and solidifies State Street as a top transfer agent in Europe. In Japan, BBH Investor Services is a leading player in the investment servicing market, supporting asset managers in the distribution of their offshore products into Japan with a locally based and experienced client services team."

By moving more aggressively into LatAm, State Street will face incumbents such as Citigroup and BNP Paribas, according to Global Investor's 2021 Sub-Custody Guide, while Japanese custody is dominated by local players such as Mizuho Bank and Sumitomo Mitsui.

In the Middle East, notably in Saudi Arabia where State Street opened a Riyadh office last year, the US bank competes with firms including HSBC, Standard Chartered and Citigroup.

Europe is more varied, featuring banks including BNP Paribas, Deutsche Bank, Citigroup, Caceis, Nordea Bank, HSBC, Societe Generale and UniCredit.

Aboaf said the BBH deal will nearly double State Street's revenue from the LatAm region as the consolidation provides the bank with the opportunity to leverage its infrastructure in Brazil and extend its reach to some of the largest and fastest-growing markets in LatAm.

He said the bank likes how the transaction will position it with large and mid-size asset managers, the bank's largest segment, and other clients which represent attractive revenue opportunities.

The two executives highlighted how BBH Investor Services' senior management team will be moving to State Street, an important consideration for both firms during the transaction discussions.

"The BBH Investor Services leadership team is coming with the transaction, and we expect to net upgrade our talent base. If we step back, what is obvious is that BBH Investor Services is the last premier mid-size franchise in asset servicing. We at State Street have the size and scale to continue to invest $2 billion a year in technology, as well as about a $10 billion capital base to support its clients. With this combination and resulting scale, we can drive the next wave of revenue and earnings growth," added O'Hanley.

Nine senior partners who have been in the industry for decades will be moving to State Street, bringing their client relationships that will supplement the US custody bank's coverage team.

The State Street CEO said that while BBH made the initial approach about the acquisition, both firms wanted to retain talent, and this consideration informed most of the discussion in terms of ensuring the transaction would have the right impact on clients, staff and shareholders.

Aboaf said that State Street expects to make $50 million of cost savings from reducing redundant corporate overhead costs, which would be expected from a consolidation of this nature. Further, by simplifying its technology, a reduction in mainframe and other platform costs, as well as technology licensing fees, would allow the bank to achieve an additional $70 million in estimated savings. State Street predicts a total cost reduction of $260 million in year three following the transaction.

The transaction is expected to close by the end of the year, subject to regulatory approval. ■

> "This acquisition also adds expertise in cross-border funds and solidifies State Street as a top transfer agent in Europe."
>
> **Eric Aboaf, executive vice president and head of Emea**