GLOBAL INVESTOR MAY/JUNE 2017

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NUMBER 287

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Mifid mayhem

Esma's definition of 'traded on a trading venue' for Mifid II will have huge implications for derivatives reporting and transparency, says Julie Aelbrecht

The interpretation of what exactly constitutes an instrument that is traded on a trading venue (ToTV) under new European rules has yet to be defined by European regulators. But the definition is crucial for firms to determine what instruments are covered by trade and transaction reporting requirements under Mifid II.

The interpretation of what exactly ToTV means for over-the-counter (OTC) derivatives in particular is not clear. The subject has been widely discussed because it will have huge implications for the amount of transaction reporting and the complexity of systems.

The European Securities and Markets Authority (Esma) was due to release a Q&A document on ToTV rules under articles 20 and 22 of Mifid II at the end of April but said on April 27 it would miss its deadline. The regulator, having already delayed once before, now says readying the guidance will take "a few weeks".

EXTREME INTERPRETATIONS

There are two extreme avenues within the possible directions Esma could take with the definition.

"The area of ToTV under articles 20 and 21 of Mifir is still in need of clarification. For derivatives, there are different interpretations of the issue, such as seeing each OTC contract as an individual contract, so they are not ToTV and there is no additional transparency. Another interpretation considers classes of instruments ToTV that need to be reported," said Georg Gross, head of regulatory services at Deutsche Boerse.

In other words, the interpretation that sees each OTC contract as an individual contract would result in very few derivatives being eligible under the reporting requirements, whereas the classification approach would increase the share of derivatives that need to be reported from January 3 onwards, the deadline for the introduction of Mifid. Overall, the market is betting on the second approach.

"Rule-making and guidance that obscures transparency may not fit into the Capital Markets Union agenda, which looks towards outcomes in creating simpler and more transparent markets," said Alex McDonald, chief executive officer of trade body the Wholesale Markets Brokers' Association.

McDonald added the guidance should detail what an instrument is by defining it through reference data, which would make the reporting obligations more straightforward for participants.

Gross echoed a preference for the class-based approach, saying: "Esma's clarification is still to be delivered but we think it is likely that they will choose the class-based approach, because it provides more transparency, so we have started building a solution based on that system."

> "Esma's clarification is still to be delivered but we think it is likely that they will choose the class-based approach"

GUIDANCE NEEDED

The requirements for trade and transaction reporting have been said to be one of the most onerous provisions in the European Union's post-crisis regulation. Firms are faced with operational and even existential challenges, so the guidance is crucial.

Furthermore, the exact definitions and requirements in the Esma guidance could have far-reaching consequences, said McDonald: "The result of using only reference data in defining instruments is that too many kinds of lookalike instruments quickly become created, which obscures the desired transparency. Therefore [if there is] the requirement to put standardisation into the instrument by identifying it via its parameters, this could in turn help related issues in terms of equivalence."

The introduction of Mifid II has been rife with delays. In May last year, the European Council approved a one-year delay for the implementation date to January 2018, after a call from the European Commission to postpone due to the technical build-out required to meet the rules.

A survey published by consultancy firm Duff & Phelps at the end of April found that only 36% of asset managers, banks and private equity firms are ready for the January 2018 deadline.

Further delay would cause more uncertainty and the list of open-ended questions surrounding Mifid II does not end with the ToTV issue. There are still perimeter issues concerning global participants and the regulation's overlapping issues with existing rules under Emir and the Market Abuse Regulation.

"Going forward, the more detailed you get in this regulation, the more you see items that need clarification," Gross added.

Second mover advantage

The new EU money market fund industry regime has benefited from the lessons learned when the US implemented its reforms last October. Andrew Neil reports

The European Council waved through money market fund (MMF) reforms on 16 May starting a process of regulatory change for the €1trn ($1.1trn) industry that will take until the end of 2018 to complete.

The rules are set to impact all MMFs managed, marketed or based in the EU and follow efforts by the G20 and the Financial Stability Board to strengthen the oversight and regulation of the so-called shadow banking' system.

"The EU rules will go a long way in improving supervision and regulation of a largely unregulated sector," Edward Scicluna, minister for finance of Malta, said at the time of approval. "While money market funds are vital to investors and issuers alike, the crisis showed us that they can also be vulnerable to shocks."

MMFs, often the vehicles of choice for cash collateral investment, are designed to provide investors with capital protection, a low-volatility return and daily liquidity. Yet the time of the financial crisis, several MMFs suffered significant losses on their underlying investments resulting in sharp declines in net asset values (NAVs).

Legislation on both sides of the Atlantic is designed to mitigate the perceived systemic risk posed by MMFs and make them less susceptible to liquidity runs.

Most funds had historically kept their NAV at $1.00 regardless of losses in the portfolio. SEC reforms implemented in the US last October include a floating NAV for prime funds that fluctuates in line with the value of securities in the portfolio. The changes, along with gates and fees for US prime funds, prompted a dramatic shift from prime to government assets as the measures influenced risk and liquidity profiles.

US prime money fund assets hit a low in early November 2016, according to Fitch Ratings. However, investors have begun to cautiously move assets back to prime from government money funds driven by widening spreads and NAV stability.

"Prime money market funds in particular have benefited of late from the change in US monetary policy with the past two interest rate hikes helping to widen the yield spread between prime and government funds," said Greg Fayvilevich, senior director at Fitch.

Still, the ratings agency noted that prime funds will not recover all that was lost, as some flows into government funds were the result of structural changes such as fund conversions or investor mandates requiring a constant NAV.

› LOW-VOLATILITY NAV SOLUTION

Sean Tuffy, head of regulatory intelligence at BBH, wrote in a recent note to clients that the EU rules align closely with the US money market fund rules that went live last autumn. "Where the EU rules differ from the US rules is that a new category of fund has been created: the low-volatility net asset value (LVNAV) fund. The EU wants to avoid what happened in the US, where leading up to the new rules there was a significant cash flow from prime to government money market funds."

David Blake, director of international fixed income at Northern Trust Asset Management, recently explored how the US and European approaches are somewhat different. "The proposals from the European regulators are similarly driving a push towards valuing assets on a mark-to-market basis, but with the introduction of a new type of fund, the LVNAV fund that can apply amortized cost accounting under certain conditions," Blake wrote in a Northern Trust regulatory update in May.

"Government funds can continue to be labelled as constant NAV funds. However, unlike in the US, both government and LVNAV money market funds must impose mandatory liquidity fees when their weekly liquidity or maturing assets fall below a certain threshold. There are also subtle changes to investment diversification and reporting requirements that should be less impactful from an investor perspective."

Geeta Sharma, head of fixed income strategies at Northern Trust Asset Management, added that the reform proposals will lead to a significant overhaul of the European money market industry, particularly as government money market funds represent only 14% of the stable NAV money fund universe today.

"Given the notable changes affecting prime funds, we expect that the make-up among money markets funds will change significantly, especially with the new low-volatility NAV fund category," Sharma wrote.

> “We expect that the make-up among money markets funds will change significantly, especially with the new low-volatility NAV fund category”
>
> **Geeta Sharma, Northern Trust Asset Management**

Pasla adopts PROACTIVE STRATEGY

Incoming chairman indicates a more prominent role for trade body.

Andrew Neil reports

The new chairman of the Pan Asia Securities Lending Association (Pasla) says the trade body will take a more proactive role in helping to develop the diverse markets and securities lending structures around Asia.

Stuart Jones, a director at Morgan Stanley, became chairman at the group's AGM in March. He replaced Martin Corrall, director of Citi's agency lending business in Hong Kong, who had held the role for five years and will remain on the board.

Speaking to Global Investor, Jones said he doesn't intend to change what Pasla has become and said that he inherits a great committee and a great team. "I think we have become more focused on our role within the industry over the last year and everyone on the committee understands the importance and relevance of the role.

"It's our duty as an organisation and a committee to engage all market participants, to represent the industry as a whole and to take a more proactive role in helping develop the diverse markets and securities lending structures around Asia.

"We have a number of initiatives in the pipeline but the key aim is to be a more prominent voice for the industry and a resource for all market participants."

At present, Pasla has 61 member firms, made up of 33 borrowers, 18 lenders and 10 others. The group's key aim is to represent the common interests of institutions engaged in the lending or borrowing of securities in the Asian and international securities lending markets.

Other members of Pasla's executive committee include Valerie Rossi of ABN Amro Clearing Bank, Tim Butcher of Goldman Sachs, Roy Zimmerhansl of HSBC and Northern Trust's Dane Fannin. Zubair Nizami, Brown Brothers Harriman, BlackRock's Nicolas Roc and David Egliskis from BNP Paribas also serve on the board.

> "It's our duty… to take a more proactive role in helping develop the diverse markets and securities lending structures around Asia"
>
> **Stuart Jones, Pasla**

Settlement failures set to rise

CSDR and the shift in the US cycle to T+2 are expected to increase fails

The frequency and cost of settlement failures is set to rise due to incoming rules and market infrastructure changes, capital markets consultancy Aite Group has warned. It highlighted Europe's Central Securities Depositories Regulation (CSDR) and the shortening of the US settlement cycle in September as contributory factors.

"Firms that don't have a handle on why settlements are failing or are not adequately monitoring process bottlenecks may end up in a tough spot once CSDR comes into force in Europe and the US market moves to T+2," Aite Group's Virginie O'Shea wrote in the group's latest report, *Settlement Market Practices: A Legacy of Failures*.

O'Shea, research director at Aite, said an increased number of settlement failures and a rise in the number and value of financial penalties could make an unattractive proposition for firms operating in global markets. "Adhering to varied market practices and keeping a good handle on essential settlement data items in an intraday context will become increasingly important," she added.

A settlement fail occurs when a market participant is unable to make delivery of a security to complete a transaction. Causes include incorrect counterparty information, insufficient funds or a shortage of securities to deliver at the end of a derivatives contract. There may also be an unwillingness on the part of a counterparty to borrow stock to cover settlement while corporate events and trading activities, such as short selling, can also lead to failures.

"A settlement efficiency rate of 95% tends to be the benchmark, and if the client falls below that level, action must be taken by the CSD or CCP to notify the client," O'Shea noted.

CSDR

CSDR, which is set to enter into full force in 2019, means settlement failure rates and their underlying causes will eventually fall under the direct scrutiny of European regulators. The rules also mandate buy-ins in the case of a failure, whereby the securities that ought to be delivered must be bought on the market after the intended settlement date and then delivered to the receiving participant.

Research by the European Central Securities Depositories Association (ECSDA) has previously indicated that 150,000 buy-ins would have been initiated if CSDR requirements had been in place during November 2014. These buy-ins would have totaled €214bn, an average of €10.7bn per day.

ECSDA also assessed the impact of late settlement penalties via the collection of data from 17 of its member CSDs. The accumulated gross late settlement penalties would have totaled €183m, or €9m per business day. "This clearly indicates that the cost of settlement failures at an industry level will increase significantly post-2019," O'Shea wrote.

> Firms that don't have a handle on why settlements are failing or are not adequately monitoring process bottlenecks may end up in a tough spot
>
> **Virginie O'Shea, Aite Group**

US SETTLEMENT CYCLE

Meanwhile, the move to T+2 in the US this September means that market participants will have one less day to complete the pre-settlement stages of the trade life cycle.

When Europe made the switch from T+3 to T+2 in 2014 it was considered something of a non-event for the majority of the market due to the high level of overall preparedness within the intermediary sector, according to Aite Group. "Individual asset managers, on the other hand, did feel some pains around technology or process changes and an increase in failures due to counterparty shorts," added O'Shea.

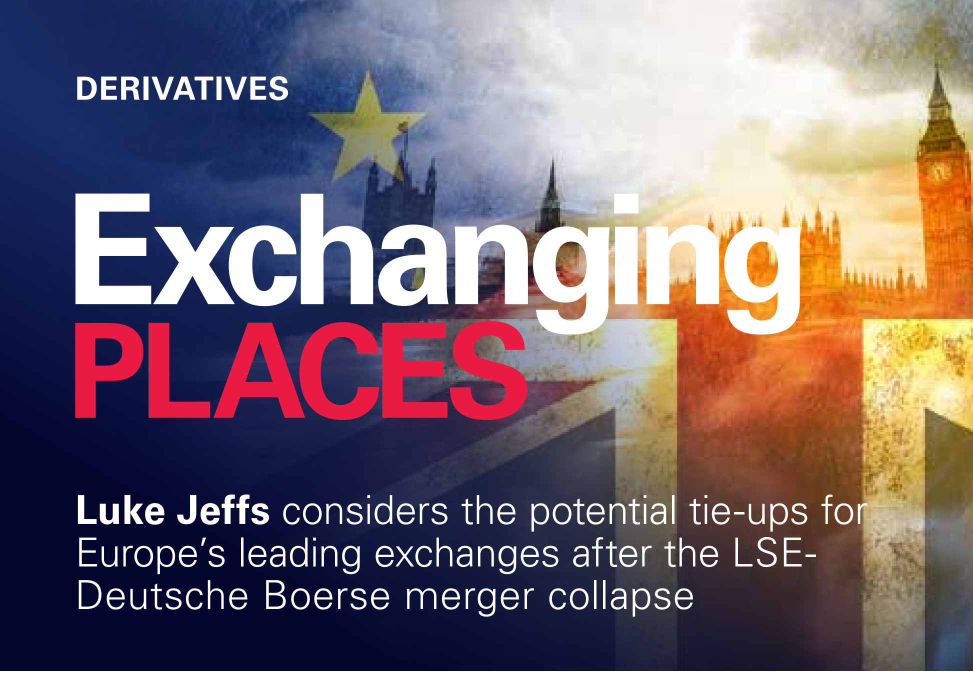
A tier-one asset manager surveyed by Aite indicated that his firm's multiple front-office systems had to be altered to take into account settlement date changes, and there was some degree of pressure on manual processes related to failure management, especially due to an uptick in failures for fixed-income collateral transactions.

A tier-two asset manager interviewee also noticed a higher failure rate for stocks on loan, which went up by around 4% overall, and an increased number of broker counterparts short of stock for the months following the introduction of T+2.

Another asset manager respondent noted that its review and amendment process included new operational documentation, a different cycle to facilitate portfolio financing processes, and amendments to its securities lending cycle.

Aite Group's advice to market participants ahead of Europe's CSDR and T+2 in the US is to automate.

"Manual processes increase the number of settlement failures in the market," O'Shea added. "Reducing operational risk via automation is, therefore, beneficial to the industry as a whole."



Exchanging PLACES

Luke Jeffs considers the potential tie-ups for Europe's leading exchanges after the LSE-Deutsche Boerse merger collapse

As Deutsche Boerse and the London Stock Exchange Group (LSEG) lament what might have been, the market is already looking towards the future of the two exchange giants and that of Euronext, which lost out on its own clearing house as a result of the failed tie-up.

Both the LSEG and Frankfurt-based group put out statements in late March on what they plan to do as separate entities. Deutsche Boerse will shift its focus back to its Accelerate programme announced at the end of last year, which includes no plans for future acquisitions. Xavier Rolet, meanwhile, has recommitted himself to running the LSEG and the company announced a £200m share buyback.

The merger is dead, but the idea of pooling the LSEG's over-the-counter (OTC) market positions with Eurex's strength in exchange-traded derivatives does not have to die with it, according to market experts. One of the key synergies in the proposed tie up with Deutsche Boerse was linking the LCH SwapClear's strong market position in OTC clearing with the exchange-traded derivatives collateral pool, similar to the one that exists at Eurex exchange.

> Uncertainty over the UK's negotiations with the EU will also have a significant impact on the three exchanges involved

"Customers could potentially benefit from much greater portfolio margining and hence capital efficiencies from linking the two clearing pools. We believe this strategic logic still makes compelling sense. It is possible this could be achieved without full blown M&A if one of the three largest exchange-traded derivatives futures pools (CME, ICE and Eurex) voluntarily signed up to LCH Spider services. However, without the potential cost synergy upside from M&A, rival management teams may be less willing to do this," according to a research report by Barclays published at the end of March.

LCH Spider is the portfolio margining service operated by LCH that is owned by the British exchange group.

Moreover, Barclays expects that the LSEG will continue its diversification with more post-trade and information services.

The European Competition Authority's decision to block the merger was based primarily on issues in the clearing of fixed income instruments and knock-on effects in settlement, custody and collateral management. Any potential tie-up with strong players in the fixed income market would incur competition concerns for either exchange.

There were also concerns over competition for the clearing and trading of single stock derivatives. A tie-up of either the LSEG or Deutsche Boerse with Euronext, the only other strong European player in single stock derivatives, would also likely incur competition concerns.

Euronext chief Stephane Boujnah said in February the exchange would look to acquire alternatives in the event of a failed merger between the LSEG and Deutsche Boerse. A research note by Swiss Bank UBS released in March suggested the Spanish BME exchange could be a good acquisition for the European exchange, as it would complement its presence in Portugal and France.

BREXIT IMPACT

According to recent research by Jefferies, cross-border exchange mergers are increasingly hard to pull off due to increasing regulatory divergence across different regional markets. In February, Deutsche Boerse chairman Joachim Faber had already put the blame for the faltering tie-up with the UK's decision to leave the European Union.

Uncertainty over the UK's negotiations with the EU will also have a significant impact on the three exchanges involved, according to Jim Northey, senior vice president of strategy and research at technology vendor Itiviti.

"For Deutsche Boerse, I think it's going to be business as usual. The LSEG however is far more exposed to Brexit. With Borsa Italiana, the LSEG is in and out of Europe so it could be adversely affected by regulatory compliance and the associated cost," Northey told Global Investor.

If the LSEG continues on its path of mergers and acquisition, it may look outside of Europe for a new partner, Northey said. "Because of potential regulatory exposure and Brexit, I wonder if the LSEG isn't going to look for another suitor and, instead of looking to Europe, it might look to the US where ICE would be the obvious candidate," he concluded.

LSE's Curve eyes "systemic relevance"

CurveGlobal chief executive Andy Ross is happy with progress so far but will focus on building its roster of participants before launching new products. Luke Jeffs reports

The chief executive of the LSE Group's interest rate futures trading platform marked the six-month anniversary of its launch by outlining as his next goal making CurveGlobal "systemically relevant" for trading firms.

CurveGlobal opened with six European interest rate futures contracts on September 26 last year, offering a direct rival to London-based ICE Futures Europe and Eurex, the Frankfurt-based futures arm of Deutsche Boerse. The platform is now trading a few thousand lots a day with open interest on the order book – arguably a better indicator of long-term success – above 100,000 lots.

Andy Ross, the chief executive of CurveGlobal, who joined the LSE from Morgan Stanley in April 2016, told Global Investor he is pleased with the progress made by his team and the platform, adding the focus for the short-to-medium term is connecting more trading firms to Curve and further driving up volume and open interest.

"I couldn't be happier in many aspects," he said. "We went live when we said we were going to go live. We have traded half a million lots since launch and on peak days we have traded as much as 2% of the market."

CurveGlobal volume peaked at nearly 20,000 lots in mid-December, according to the LSE Group, which represents a single-digit percentage of the total market spread across ICE and Eurex. "That said, we have not yet got enough to be systemically relevant so we are working with clients to ensure that we get to this stage as soon as possible," added Ross.

ANDY ROSS
CurveGlobal - CEO

CurveGlobal has some serious backers. The LSE Group is the main shareholder in the venture. Investment banks Bank of America Merrill Lynch, Barclays, BNP Paribas, Citigroup, Goldman Sachs, JP Morgan and Societe Generale as well as US options exchange CBOE Holdings are smaller shareholders.

The LSE declined to say how many of the seven banks are live and trading on Curve, although Citigroup said in mid-March it had gone live. "We have seen an increase in participants coming in over the last few months and we are expecting to add to this roster in the near future," said Ross.

BUILDING LIQUIDITY

Curve offers various liquidity and market-maker schemes to incentivise trading firms to trade or offer prices on the platform and Ross sees these schemes playing a role in further building liquidity: "We are looking to launch a new scheme for tier two market-makers. The plan is currently to roll the existing market-maker schemes forward when they expire."

Ross, however, is keen to stress that Curve is not paying for order flow, an allegation frequently levelled at Nasdaq NLX, a rival to Curve that is closed down at the end of April. "NLX had the right business model but its demise means competition has coalesced around a single competitor, namely CurveGlobal," said Ross.

A big part of the Curve pitch is the portfolio margining offered by clearing house LCH between Curve-traded interest rate futures and the correlated swaps sitting in LCH Swapclear.

"The uncleared margin rules and other regulations such as the net stable funding ratio are creating margin scarcity which is driving interest in services such as portfolio margining," he said. "Portfolio margining is an important part of the value proposition but there is more to Curve than offering the ability offset margin."

Ross and his team have said the grand plan involves products beyond the six currently traded on Curve – it is called CurveGlobal rather than CurveEurope after all – but the chief exec said he is focused in the short-term on making what they have got work.

"I don't view Curve over the next six to nine months as a lab for developing new products. We're building a new platform rather than being hyper-aggressive in terms of new products. We have to be successful in what we have set out to do in Europe. Six months in, I am more confident about the success of Curve than I was on the day we launched."

> "We're building a new platform rather than being hyper-aggressive in terms of new products"
>
> **Andy Ross, CurveGlobal**

Getting back

Hani Kablawi is the first head of investment services EMEA to be purely focused on the role, as previous incumbents divided their time with the EMEA chairperson role. The structural shift reflects the growing importance of investment services, already the company's largest business.

His remit is to further bring together buy-side and sell-side solutions across asset servicing, alternative investment services, corporate trust services, broker-dealer services, depositary receipts and treasury services.

Kablawi co-chairs the company's sovereign advisory board and the Middle East and Africa management committee. He plays an active role in both mentoring and reverse mentoring at BNY Mellon.

He joined BNY Mellon in 1997 and has held a number of business, functional and risk management roles based in New York, Abu Dhabi, Dubai and London. He holds a Masters in Finance and a Bachelor of Business Administration in Finance, both from The University of Iowa.

Hani Kablawi, BNY Mellon's head of investment services for EMEA, speaks to **Alastair O'Dell** about emerging from an era dominated by regulatory compliance and finally being able to focus on growth

Is the phase strategy being dominated by regulation now over?
The past few years have been very focused on optimising our business and meeting regulatory obligations – not only our own compliance but for clients, from AIFMD to Ucits V and now Mifid II. We have invested heavily in resilience and resolvability, consolidation and optimising.

But there is a pivot here, absolutely. There is no question that having delivered on those aspects we are now very focused on digitisation and growth. Regulation has not completely fallen away but in terms of the share of time, mind and wallet the focus has shifted.

Where do you see opportunities?
We are bullish on EMEA. We think there are growth opportunities in these markets if you appropriately track the flow of assets and investments. Operational efficiency and data mobilisation are important and there are flows to passive and ETFs, alternative investments, real estate as well as debt and credit funds. And, pension funds' assets are growing. We always test ideas with our client advisory boards before investing our money in new products and services.

You took up your position two days before the Brexit vote. Has it presented more costs or opportunities for your business?
Brexit will not be good for economies over the next five years. The total amount of available business can be expected to shrink as a result of Brexit – that is an easy prediction.

But even in the worst case scenario there would only be very little change on the margin for our business, such as moving clearing or treasury resources to one place or another. We run three systemically important financial institutions in EMEA.

It's a significant undertaking for a bank or asset manager needing to set up significant operations in the EU – getting the real estate, staff, capital, treasury functions, systems, technology and permissions to operate in place before even starting to create the business generating machinery. The question is – what will they do? And, does that through up opportunities for those up and running?

What are your clients asking for?
It depends on how much they rely on a passport. UK and US investment managers that have been passporting into Europe from the UK are assessing what they might need if the passport was not part of

to the future

a hard Brexit deal. It is a fair assumption that they would stay in London and open an office within the EU – in which case they would be looking for turnkey-type solutions that give them continuity.

How do you envisage the future of the City of London?
London is in the position its in for many reasons. Easy access is one of them, but there are many others. There is a significant accounting, finance, consultancy, legal, advisory ecosystem here, as well as fintech at a time of growth in technology and digital strategies. Brexit is bad all else being equal – but all other things are not equal.

Over any period change happens anyway, people will innovate and find solutions. Headcount may move away – but equally it may be replaced by something else. The power and attraction of London extends well beyond the continuity of the passport.

How have you structuring the business to pick up on emerging trends?
Historically, we had run the businesses within BNY Mellon as verticals. There are a lot of advantages to that but you also need to be conscious of introducing the horizontals of revenue, cost, controls and risk synergies. That is what I am trying to do in this role.

What does that mean in practice?
Each business has a very good feel for the themes and strategies playing out in their own market – it is about bringing a broader perspective. Our client advisory boards confirm that in the short to medium term there is a drive towards passive and alternative products. As a result our asset servicing business has a very deliberate strategy to build out administration for those asset classes.

A good example of how a strategy plays out within our business is real estate administration. It's a space that is growing and there is a trend within it for outsources administration services. We acquired a business 18 months ago [from Deutsche Bank] then integrated and re-platformed it into something scalable and leveragable before starting to offer it to third-party clients.

Likewise, the continuing trend for the deleveraging of banks, with banks packaging loans into debt funds as well as funds originating loans, has led to us offering end-to-end services for those investment funds.

Investment managers are a significant part of our client base so we are very, very interested in their thoughts around margin pressures.

> “There is a pivot here, absolutely. There is no question that we are now very focused on digitisation and growth”

How can asset managers maintain revenue in such a competitive environment?
We have long been a demand aggregator and product developer. To this we have added a platform layer, which houses our own products as well as those of fintechs. It means clients can access capabilities without giving those companies its data, such as measuring their carbon footprint or sentiment analysis [provided by fintech Heckyl]. That is the crux of our technology strategy.

The problem with big data is that it is so big. What do you actually want to look at? It needs to be delivered at the right time, be relevant and actionable. It's about operationalising data and consuming it effectively.

There is an ever-expanding universe of fintech products. What types of app are gaining most traction with asset managers and other clients?
It's still early days. We have traditionally been good at middle and back office services – so clients look to us for operational efficiencies and actionable data. For example, an asset owner could monitor trading patterns of all its asset managers in real time and identify unusually large trading volumes – and then call up the manager to ask why.

Economic value information such as securities lending revenue and exposures is considered to be valuable, as is middle office information such as credit, collateral and reinvestment exposure. And, we are also getting much better at providing front-end tools.

SFTR: A data gol

While securities lending participants focus on complying with the upcoming SFTR, potential data benefits are starting to emerge. **Andrew Neil** investigates

Barring any delays, upcoming EU legislation will force firms to start reporting details of their securities lending, repo and margin lending activity to a trade repository in the second half of 2018.

Securities Financing Transactions Regulation (SFTR) recordkeeping requirements follow a similar model to derivatives reporting under Emir. It is designed to give regulators a transparent view of activity across SFT and wider collateral markets, areas that have often been criticised for being opaque.

However, with up to 38 client and margin data fields per transaction, the requirements are extensive and have led to concerns from some firms over its cost and complexity. Meanwhile, many firms see no obvious upside to their own operations.

Even European securities watchdog Esma itself has conceded there may be a detrimental impact on volumes, albeit minimal, once the rules come into force. More marginal trades and customers could drop out of the business while others may focus on transactions in other jurisdictions, particularly the USA, where the perceived regulatory burden is lower.

One-off costs, meanwhile, could be amplified by constraints on existing IT resources, according to Esma, due to the need to meet other concurrent regulatory requirements such as MiFID II and CSDR.

BENEFITS EMERGE

Esma recently unveiled its final technical standards for SFTR compliance, giving firms a chance to get their systems in place ahead of the Q3 2018 deadline.

"Inevitably regulation and compliance with something as complex as the SFTR will present firms with significant challenges," says Andy Dyson, chairman of securities lending trade body Isla. "However, SFTR provides a powerful springboard for firms to think about how they organise their business to better reflect the world today.

"Better and enhanced transparency offered by SFTR will allow firms to create more transparent and efficient trading models that will better align demand from borrowers with the supply held and aggregated by agents. The high quality data flows within SFTR will also drive better and timelier client reporting."

Ralph Sutter, a business consultant at GFT, says that first and foremost delivery and data quality should be the focus for agent lenders and borrowers, or prime brokers, before looking

> "SFTR provides a powerful springboard for firms to think about how they organise their business"
>
> **Andy Dyson, Isla**

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at opportunities to reuse the data in smart way.

"However, there's a myth out there that there is no value in the data," Sutter adds. "If compliance is performed correctly, we believe SFTR data will be powerful and bring significant opportunities to many levels of an organisation."

These potential opportunities include new data combinations could potentially visualise netting arrangements and provide more transparent views of liquid asset holdings.

According to GFT, the statistics could also give firms an idea of their total SFT exposure from an initial and variation margin perspective and determine which trades should be allocated to CCPs.

Prime brokers, meanwhile, may also be able to visualise conflicts of interest when it comes to short selling and cover. Daily collateral composition updates, haircut and price control, or trend analysis for collateral types and legal entity identifier (LEI) correlation risk are other potential benefits.

> "As regulatory reporting evolves you can see there are a number of opportunities for clients to consolidate their data management approach, look at business intelligence, data warehousing, big data analytics or federated data lineage capabilities"

Paul Burleton, GFT's regulatory practice head, says data is the key. "There have been several transaction reporting requirements placed on market participants prior to SFTR.

"Valuable lessons have been learnt around data management, data engineering and governance. We believe there is a clear maturity model which benefits the way our clients manage data.

"As regulatory reporting evolves you can see there are a number of opportunities for clients to consolidate their data management approach, look at business intelligence, data warehousing, big data analytics or federated data lineage capabilities."

Both Sutter and Burleton agree that if firms are agile enough, they will be able to reduce their technical and operational debt and minimise the cost of compliance.

At the same time, SFTR can bring additional benefits if combined with other internal or external data, allowing banks to simulate the macro-prudential tools at the firm level.

"Ultimately an insight-driven approach to SFTR will lead to a goldmine of information for banks on exposures, risks, client behaviour, cost and performance," Burleton adds.

Stay of executio

The derivatives industry breathed a sigh of relief when variation margin requirements were delayed, says **Julie Aelbrecht**. But it will have no excuses in September

After warnings during the first quarter of the year that the implementation of global variation margin requirements would result in major disruptions across EU and US derivatives markets, experts now largely predict that most of the foreseen issues will be resolved by the deferred deadline for implementation in September.

On the eve of the variation margin implementation, it emerged that the financial industry was far from ready to comply with the regulation. At the end of February, estimates for the share of firms that were ready to comply with the new rules ranged between 10% and 30%.

Months of speculation on the disruptive effects of the regulation culminated in a letter from a group of trade bodies including the International Swaps and Derivatives Association and the Global Financial Markets Association to twenty global regulators. The letter was sent at the end of February and asked the regulator for leniency and global regulators complied with the requests at the end of February.

Experts have told Global Investor that the delay is likely to ease many of the concerns firms and lobby groups had before implementation in March.

"What we usually see with a regulatory delay is that people take their focus off the task at hand and focus on something else. I would say this is one of the rare occasions when an industry is using a regulatory delay as intended, partly because in order to qualify, both the US and European regulators specified that you need to show you're taking steps to be compliant," says Lee McCormack, head of strategy and product development at technology provider CloudMargin.

› GLOBAL DIVERGENCE

The first regulator to issue a delay was the Commodity Futures Trading Commission (CFTC), which issued a no-action relief letter on February 14, giving the market an extension of six months to ensure their compliance. The CFTC stipulated that firms had to show progress on compliance in order to be able to take advantage of the delay.

Regulators in Hong Kong, Singapore and Australia said last year they would take a pragmatic approach to the introduction of the rules. The European financial authorities, however, took a more ambiguous stance. While the European Securities and Markets Authority reprimanded firms for failing to get ready before the deadline, it said it would defer the application of the variation margin rules to national regulators.

McCormack argues that the difference in tone between the US and EU responses could be cause for concern among European firms. "We saw no discernible difference in behaviour between firms in the EU and the US. It could be that some EU firms were more worried about the deadline because they didn't know how seriously to take the EU move to delay enforcement," he says.

The delay also suppressed the projected spike in trading the market had expected in the run-up to the March 1 deadline. "In March overall there wasn't a huge notional impact on volume. Anecdotally we did see firms saying there was a lot of confusion, which is usually the case when there is not a lot of guidance. It will be quite interesting to see whether there are spikes in trading or depressed trading closer to the date," says Colby Jenkins, analyst at research house the Tabb Group.

CloudMargin conducted an informal poll among 80 market partici-

> "This is one of the rare occasions when an industry is using a regulatory delay as intended"
>
> **Lee McCormack, CloudMargin**

> I hope six months will be enough to get the re-papering done, this is the most time-consuming aspect of the regulation
>
> **Colby Jenkins, Tabb Group**

pants, including buy-side, sell-side, central counterparties, consultants and other service providers located in the US and Europe to assess how these firms had reacted to the regulatory delay. The results of the poll suggest a sharp distinction between behaviour on the sell-side and that on the buy-side.

All of the buy-side firms polled would continue to work with their existing trading strategy, while 29% of tier one banks and half of tier two institutions would be making minor adjustments. Furthermore, 14% of buy-side firms said they had seen fewer counterparties and lower aggregate volumes since March 1, versus 11% among large sell-side institutions.

› IMPLEMENTATION CHALLENGES

The challenges for implementation of the variation requirements are manifold. One that was cited often was the amount of work involved in re-papering agreements for firms that had many counterparties. Trade bodies and financial firms alike argued that, because of the scale of the regulatory changes and the complexity of implementation, firms would be forced to prioritise re-negotiating relationships with their most actively trading derivatives clients. In this way, smaller counterparties would have been disadvantaged in the immediate aftermath of the regulatory deadline.

"I hope six months will be enough to get the re-papering done, this is the most time-consuming aspect of the regulation," says Jenkins, adding that he expected the compliance to be gradual. "Firms will be testing the waters, get the documentation ready and work out kinks so there are no surprises come September."

Additionally, experts have pointed out that the variation margin rules only apply to new trades made after the compliance deadline, so firms are having to choose between maintaining two separate methodologies, one for the new trades and the existing methodology for the old trades, or moving the old trades to the new model, which may present legal issues.

According to the CloudMargin poll, buy-side firms expected to have all credit support annexes needed to exchange variation margin to be ready before the end of July, while a third of large sell-side institutions expected to need until September 1. Another third of tier two banks also said they would need until September. Perhaps surprisingly, smaller sell-side firms were also the only group to say they had met the deadline, with 17% of respondents saying as much.

› COLLATERAL SQUEEZE

Another challenge for the market was operational, as exchanging variation margin on an intra-day basis is no small feat. A report by consultancy giant PricewaterhouseCoopers suggested the new margining regulations bring the risk of collateral settlement fails because of the increased collateral movements that will result. The report estimates the annual exposure from collateral settlement failure on the sell-side is as much as $27bn.

Ted Leveroni, chief commercial officer of DTCC Euroclear GlobalCollateral, told Global Investor in November the amount of collateral settlement fails prompted by the new regulations could be of such magnitude that they go against the regulators' goal of reducing risk exposure.

"The new CSAs under the regulation will change operational processes a lot as the number of collateral calls is expected to go up by 500%," says CloudMargin's McCormack. He added that he had not seen the start of a collateral squeeze among clients.

Nevertheless, both Jenkins and McCormack were optimistic about compliance by September.

"I believe the situation will be different in September because progress has to be demonstrated so a last-minute rush is less likely. If firms don't start preparing now, one could argue that they are not compliant. I think it will be a smoother implementation in September," McCormack says.

Jenkins adds: "I expect the disruption will not be too great in September. We've had several pieces of cumbersome regulation come in over the last five years, and the market is usually pretty resilient."

In September, however, the initial margin requirements will expand to include a second wave of firms subject to rules that came into effect for larger institutions in September 2016

THOUGHT LEADERS

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ILYA GORELIK
CEO of Deltix

STUART FARR
President of Deltix

DELTIX

Deltix says that execution can be made more transparent and accurate with CME's MBO data-set

One of the key challenges for any algorithmic trading firm is understanding why fill ratios aren't optimised. Now, with the launch of a new data set by the CME Group, traders can access unprecedented transparency over their orders, improving the accuracy and returns of their strategies.

In Q4 2016, CME started the roll out of Market by Order (MBO) functionality alongside the existing Market by Level or Market by Price offering.

MBO data disseminates individual orders and quotes at every price level in a given instrument and for the first time gives traders a view of exactly where their order is in the queue. In the MBL format traders can only identify which price level their order is in, not its position in that level.

The data set was launched for Nymex and Comex contracts in Q4 2016 and will be rolled out to more instruments across the CME group in 2017.

UNPARALLELLED TRANSPARENCY

For traders, the MBO data offers an opportunity for unparallelled gains in both understanding and improving execution quality. Traders can use the data to simulate execution methods, tweak algorithms and then analyse actual execution performance.

"The key thing about the MBO data is that it offers the ability to see where your orders are with complete transparency so you don't have to make assumptions as to where you are in any given level," says Stuart Farr, president of technology firm Deltix, which has developed software to process and analyse the MBO data.

"Using the MBO view you know exactly where your order is so you can run more precise simulations of order execution and with more precise simulations you can fine-tune your algo. Once you have deployed that algo you will be able to analyse the actual performance with signifi-

> "MBO-based orders fill faster or at the same time as MBL-based orders with no exceptions"
>
> **Ilya Gorelik**

cantly more granularity and understand why executions are or are not happening as expected," he says.

MBO data also offers a view across a greater number of levels than MBL, which provides prices and the quantity of bids and offers at that price for a maximum of ten levels.

Farr says: "MBO shows the individual order sizes that make up the total quantity at a price including the priority in the queue. Each order has a quote ID, which the trader can use to identify their order in the order book and hence the precise position in the queue."

Any trader that struggles to fully understand why limit orders are not getting filled despite being sent into the market at the best bid or offer will benefit from the MBO data. So too will intra-day trading firms looking to improve the profitability of their strategies.

"Currently firms have no answers to the key question of why fill ratios are not where they want them to be. Using the MBO data they identify exactly why it is they are not being filled," says Farr.

> BETTER FILL RATES AND PRICES

On a recent webinar with Global Investor, Deltix used its simulation software to analyse hundreds of thousands of orders to compare simulations using MBO data alongside the MBL data.

The majority of orders were filled at the same time across the two data sets but in a number of instances MBO-based fills were quicker with some taking a tenth of the time it took to fill an MBL-based order.

"MBO-based orders fill faster or at the same time as MBL-based orders with no exceptions," says Ilya Gorelik, CEO of Deltix.

In addition, in the simulation there were a number of instances in which an MBO-based order was filled whereas an MBL-based order was cancelled.

"In our simulations around 1% of orders are filled but this can make a huge impact to the strategy," says Gorelik. "Also in the simulation, 15% of the orders were filled at a better price using MBO-data."

> DATA REQUIREMENTS

MBO data is available on the same feed as historic MBL data but has messaging of around 20-30% above current levels for the existing instruments that CME is disseminating the MBO data for.

When it launches the tool on more liquid contracts the amount of data needed to be processed is likely to increase further, potentially causing a strain on existing infrastructures.

Farr says that firms need to ensure they have the data processing capacity to capitalise on the MBO data set. "There is a non-trivial increase in data volumes from using the MBL data," he says. "You can't just plug in your existing systems and expect them to be able to absorb this amount of data.

"Firms need to focus on their technology and whether it is capable of dealing with the amount of data, how that data is being consumed and whether it is being processed without delays or buffering."

CME's MBO data represents a step change in transparency over execution quality. Using the data, firms can significantly improve their algorithmic trading strategies with higher fill ratios and better price of fills. To find out more on how you can capitalise on the new data set and for a demo of some of the Deltix tools, listen to the full webinar by following the directions below.

> WEBINAR ON EXECUTION QUALITY

Follow the link **https://goo.gl/bGd93L** or scan the QR code

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Link to Webinar on Execution Quality

http://www.deltixlab.com/insights-into-execution-quality-cme-mbo-data/?utm=FOWarticle

> "You could say we're a disruptive company. We have a very different way of looking at the world"

Saker Nusseibeh likes to do things differently. The Hermes CEO has the rare distinction of being labelled a "hippie" by the Financial Times while seeing inflows into his active asset management business rocket in the last few years.

The industry mega-trend of towards passive management has left the £28.5bn ($36.6bn) AuM business unscathed, prospering even, and largely immune from fee compression. He puts this down to the counter-trend of investing based on environmental, social and governance (ESG) factors.

"You could say we're a disruptive company," says the CEO since 2012. "We have a very different way of looking at the world, we integrate ESG and we're very long term. We're as close as you can get in terms of active share to a hedge fund, without shorting."

Indeed, its median active share was 87% last year. Its 2016 annual report, published in April 2017, also showed that it AuM increased by £5.5bn from £23bn in 2015, a gain of 24%. It continues the trend of the last five years, which has seen its assets swell by 300%. Its performance also is excellent; 74% of its funds outperformed their benchmarks over a three-year period.

Its ESG philosophy is something that resonates particularly with the emerging generation of millennial investors. But it has been a mantra that Hermes has followed since its inception, as the captive asset manager of what is now the BT Pension Scheme, and one that Nusseibeh wholeheartedly maintains. It has been an overnight success, as they say, more than thirty years in the making.

Hermes is made up of autonomous teams with their own independent processes, so it cannot be said to follow a particular style. "We spend more time than any other house working out whether a specific strategy theoretically works, how it would work in practice and then make sure that we have the right people working it. What unites all the teams is the idea that we integrate ESG into everything we do."

Bits of the ESG debate are nonsensical, as everybody is surely looking for certain things. Who would not value a sustainable business model or want to be exposed to environmental risks? Nusseibeh agrees and says this is really about governance: "We can prove to you that governance does impact the performance of companies in terms of their profitability and share price."

Even so, his pronouncements go well beyond avoiding financial risks, with comments sounding very much like altruism creeping in. "People invest because we want to retire in a better situation, and who wants to retire in a sludge-filled Gotham City?"

INFORMATION ADVANTAGE

Nusseibeh says the investment process is behind its outperformance. "We're talking about being better than other active managers – so it could be that we're smarter, more handsome and eat better superfoods, but I don't think so. It could be that we just do things slightly differently and we have an informational advantage. I think that's the truth. So being good is actually good business."

The information advantage Nusseibeh refers to stems from Hermes EOS, its business that carries out engagement and stewardship for itself and third-party clients and represents £261bn, almost ten times is own AuM. It engages with boards on behalf of investors, often when the owner cannot disinvest from an indexed-tracking fund.

"You can never sell out of a stock in an index fund so the logical thing to do – as [former Hermes CEO and chair] Alastair Ross Goobey realised more than 15 years ago – is to en-

THE ERA has arriv

gage with the board to make sure that the business is sustainable and profitable long term."

It is now the largest provider of engagement services in the world, which "is pathetic, because we represent less than £300bn," he says. "It tells you that most people that put their money in index funds are simply betting on the market rather than truly investing."

› ESG EVALUATION

Many investment managers claim to follow ESG principles, but there is no official way to recognise ones that take it seriously. At the end of 2016 there were 16,000 signatories to the UN-backed Principles of Responsible Investment, representing AuM of $62trn, a tenfold increase in the decade since it was launched.

With ESG accounting for 20% of investment in the US, according to a recent State Street report, there is a danger that too many firms jumping on the bandwagon will devalue its meaning. The report notes that 47% of ESG investing is done through exclusionary screening or values-based exclusions and only 21% engaging in active ownership, as Hermes practices.

Sustainalytics has been providing services for 25 years and offers an expanding suite of tools. Likewise, in April MSCI launched MSCI ESG Metrics that allows managers to gauge their exposure to risk factors such as carbon regulation or corruption.

While Hermes managers also uses such products, Nusseibeh says the metrics quickly date: "Our engagers have up to the minute information, having had conversations with the chairman, the board, whoever it may be, so it gives us a competitive advantage."

> "It's precisely because we're giving away the family silver that people trust us"

Over the last 10 to 15 years fund managers have increasingly narrowed the bits of the company they are interested in to purely financial metrics, says Nusseibeh. "But no company survives because of financial metrics. It's nonsense! If you choose to go to a Marks & Spencer or John Lewis, it's partly emotional."

Nusseibeh says engagement should be focused on governance concerns, rather than just the financials. "We ask the CEO or CFO how the business is doing like everyone else, but we also ask about governance. If the governance is weak, the chances are you are at risk."

He likens the process to business rather than financial analysis. "What's the supply chain like? If its no good, the chances are there will be a strike. What is your pricing policy?'

"When I started in fund management many years ago it was in fundamental analysis. I went to look at stores and factories as well as the buyers and competitors. There was a lot of legwork and it was not glamorous. Now analysts phone the CFO to ask what's happening – that is not research."

He says whether a firm has a good or bad season it's just not important; it's the long-term fundamentals. "Why was it that Sports Direct – which we don't own, thank God – tanked?" The sportswear company

OF ESG

ed

Hermes CEO Saker Nusseibeh tells Alastair O'Dell that the secret to success cannot be found in analysts' reports or free market economics

became the centre of the 'zero-hours contracts' scandal, trashing its reputation. "What questions did managers ask Sports Direct – did they just ask 'tell me about your quarterly sales of shoes'? That's not what hurt the share price."

› GOOD BUSINESS

Nusseibeh stresses that ESG considerations are fundamental to long-term profitability – and need not have anything to do with altruism. It does beg the question of why some asset managers don't follow the same path and leave returns on the table?

"There was a massive misconception in the market that on the one hand there is fundamental research and on the other hand there is this hippie 1960s thing called ESG, which was all about hugging trees. People, in their minds, separate the world into discrete bits that are not related to each other."

He uses the example of gender equality and anti-discrimination in the workplace – of which, of course, he is a "big proponent" – to illustrate how inefficiencies perpetuate. "If I am a buyer of talent, explain to me why it's not in my own self-interest to make sure that the supply is not halved. So why do people say this about doing good?"

In the recent past, when Barack Obama was president, it seemed there was an inevitability to things such as environmental standards only tightening; it was a one-way street that asset managers could incorporate into their strategies, perhaps helping to explain why ESG factors could boost performance. However, in the Trump era, it seems far from inevitable this will continue.

"The election of President Trump… his policies are clearly a reversal of that, very clearly," he concedes, although points out that there is still increasing awareness of environmental concerns and the debate is not finished.

He also sees the election, as well as Brexit and the record support for Front National leader Marie Le Pen in the French presidential election, in ESG terms. "People have realised that there's a disconnect between their place in society [and political discourse]. People are voting this way because they are angry, and they are angry because of the financial and economic system has disconnected from the society they live in. This societal push to try to get the financial system back under control will not go away."

› PASSIVE COMPETITION

Another trend that will not go away is investors' preference for low-cost passive products. Hermes is positioned at the completely opposite end of the spectrum with very high active share and a research-heavy investment process. "It means that the space for informational advantage exponentially increases," he says. "I can reliably predict that returns from our skill, alpha, will increase as more people go into index."

He says this is not what he wants to see happen, quite the reverse: "I would love to be arbitraged out of the business. Why? Because I have children and I would like them to live in a better world, and that means I'd like my performance to be eaten away slightly with everybody else becoming more concerned."

He cannot be accused of not practicing what he preaches. In April, for example, Hermes published a white paper relating to ESG and bonds, the lessons from which could be adopted by other asset managers to arbitrage away a profitable niche.

"My shareholders are 320,000 pensioners [in the BT pension scheme]. We could create more value in the company but divided among them it would not be a lot of money. But if we create a better world, the amount of good we have done for them is immeasurable. The question is, whose interest are we serving? It's not as nuts as it seems, it's in the interest of the investors to ensure that there is a sustainable political economy, not just economy, and be in a system that works."

› THIRD-PARTY BUSINESS

Hermes was created to invest on behalf of BT's pension scheme, which is still its owner, but it has progressively taken on third-party money. In 2009 just 8% came from clients but now more than half, £14.6bn at the end of 2016, is external. It is fair to say that these clients invested with their eyes firmly open.

"Most people thought we were mildly eccentric and soft-centred. But over the last seven years people have come to us because we were the first to say 'the system is broken and here is a possible way of trying to fix it'."

> "It's not as nuts as it seems, it's in the interest of investors to ensure that there is a sustainable political economy"

> I note with sadness that the Investment Association still can't bring itself to say its members will put the interests of their clients before their own

It is all very well taking this position but asset managers need to recoup their research costs if they are to come up with the next big idea – just as a pharmaceutical company needs to cover the cost of developing new drugs.

But Nusseibeh makes a convincing counter-argument: "It's precisely because we're giving away the family silver that people trust us, that we're doing this for the right reasons and care about all of our investors, not just our bottom line. And, it pushes us to be at the frontier and find new stuff. That's good."

In any case, even if the ideas are beginning to gain ground, firms still need to catch up and do the ongoing work, and, he says, it will take a long time to change the minds of "a generation brought up on "[Milton] Friedmanian economics".

PROFESSIONAL STANDARDS

Whether politicians care to admit it or not, the tightened regulation in the post-crisis era is not informed by faith in Friedman's free markets. But has the combined effect of regulation made the industry sustainable? "You just can't regulate for attitude," he says, so there will always be dangers.

Regulatory capital requirements have led to a boom in direct lending by asset managers, as banks have withdrawn. Nusseibeh says Hermes entered the business when a "rare talent" became available but notes that the nascent industry has the potential to cause problems. "If more and more people come into this because they want to make money but don't know how to do it you could have a problem, of course you could."

There's not yet enough in this market to "attract the sharks", he says. "But, every time, what breaks things is not the product per se, what actually breaks things is the greed of those who want to make the most amount of money."

"It's not the product, it's the people," he says, noting that hedge funds can sustainably produce 6% but "people levered it and clients lost a lot of money". "The crucial point is you can't legislate for people. The investment community has a huge amount of power but it has no responsibility. We are the only asset management firm in the world that has a pledge.

"I note with sadness that the Investment Association still can't bring itself to say its members will put the interests of their clients before their own. It's extraordinary! Imagine, would you see your doctor if you suspected that he might prescribe you a medicine to increase his income?"

Nusseibeh says the industry should be bound by professional standards. "First and foremost, you should look after the interests of the investors more than your own. The second thing you expect of a profession is an approbation body," such as The Law Society or General Medical Council. "I am calling for the professionalisation of fund management."

Active asset managers almost universally feel under pressure from fee compression. Does Nusseibeh? "No." He says, as Hermes came from being an in-house asset manager, fees, and manager remuneration, were always lower. He adds that the industry still gets paid handsomely: "The industry is used to managing its business on margins of 50%. Every other industry has margins of 4%, 10% or 20%."

The Hermes annual report for 2016 shows its margin was 15%. "Where my competitors are being squeezed, as far as I'm concerned our margins are expanding."

Profit margins should come from selling something rare, he says, where supply restricted. "As a point of almost belief I think that fund management is a business based on rare talent. It's an oddity to in the fund management industry to say 'we have something unique' and then mass-produce it. I can't run off 55,000 copies of a Rembrandt and say it's the same thing."

So, given the business practices, the lack of professional standards, regulatory threats and fee compression, would asset manager stock pass the Hermes ESG filter? "Good question! I'd look at whether the business is sustainable. I think is the sweet spot is up to £50bn, the high-skill specialist players. As the big guys suck up every last billion, it becomes easier to make alpha.

"Would I invest in those behemoths? Maybe, because the economics make sense. Would I invest in the amorphous bit in the middle? I have nothing but the deepest love and respect for my colleagues in the industry, but I'm not so sure."

VITAL STATISTICS

- Assets under management and advice: **£28.5bn**
- Assets under stewardship (Hermes EOS): **£261bn**
- Percentage of revenues from third parties: **59%**
- Companies engaged: **562**
- Employees: **351**
- Underlying revenue: **£111.8m**
- Underlying profit: **£15.5m**

Fresh start f

Matthew Chamberlain was widely expected to become chief executive of the LME, says **Luke Jeffs,** but the 35-year-old faces a big challenge in marshalling its vast and diverse customer base

Matthew Chamberlain, the new chief executive of the London Metal Exchange (LME), knows better than anyone the magnitude of the challenge he faces. The 35-year-old has held most of the senior positions at the London metals market over the last few years and, before that, advised on the 2012 sale of the business to Hong Kong Exchanges and Clearing.

He was also involved in the programme of reforms undertaken by his predecessor Garry Jones that angered some sections of the LME community and, ultimately, contributed to Jones' departure from the role in late January.

In his first few weeks in office, Chamberlain has understandably, and rightly, adopted a conciliatory stance. His first major move, on April 24, was to open a far-reaching market consultation in the form of a 57-page discussion paper that covers virtually every function of the historic metals exchange.

> "The discussion paper is a clear statement of what we want to do… We have narrowed the debate to focus on where electronic liquidity should reside"

OPENING DIALOGUE

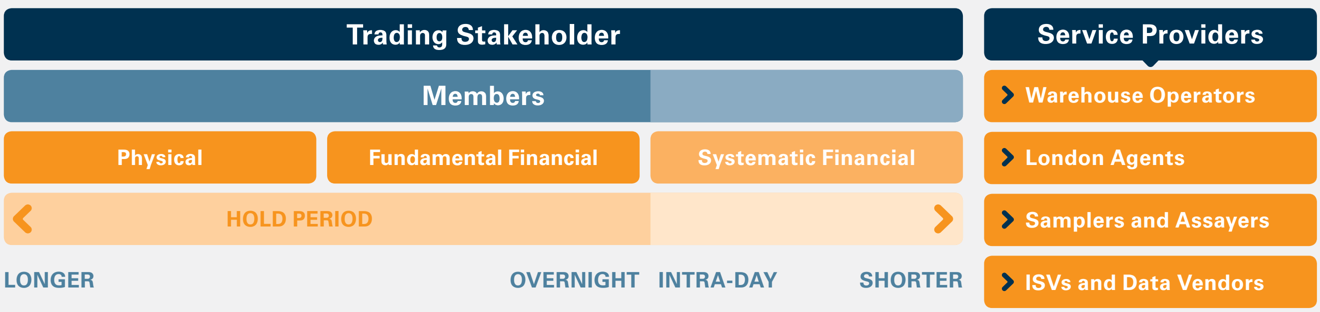
Much of what the LME does – clearing and warehousing, for example – is not really up for debate. The paper focusses on trying to strike a consensus on the thorny issue of the LME's trading practices, a point of contention between Jones and some of the LME's traditional users.

Chamberlain told Global Investor in early May: "The discussion paper is a clear statement of what we want to do and what we don't want to do. We have narrowed the debate to focus on where electronic liquidity should reside."

In the paper, the LME stated it believes "evolution to a monthly electronic liquidity model is likely given the current development of market activity towards monthly dates".

Chamberlain adds: "The market is undoubtedly moving to monthly contracts so we want to offer the user choice by investing in the infrastructure to trade monthlies but we are not going to use fees to change people's behaviour, rather we are going to look at what we can do on the infrastructure side to help the market trade the third Wednesday."

LME STAKEHOLDER GROUPS



for the LME

Third Wednesday contracts are monthly futures that exist within the current prompt date structure for all major LME contracts, but only expire on the third Wednesday of the month rather than every day.

The LME proposed in its paper four models which could expedite the move by its varied clients to trade more monthly futures contracts: the provision of liquidity on third Wednesday electronic dates; implied pricing on LMEselect; a separate financial contract; and a distinct, permissioned dealer-to-client platform.

"I am not going to pre-empt the market but I think implied pricing is probably the neatest way forward," says the chief executive.

> "I am not going to pre-empt the market but I think implied pricing is probably the neatest way forward"

> TRADING REFORMS

Re-visiting the idea of trading reforms – and specifically moving towards a transparent, screen-based all-to-all model and away from the LME's traditional dealer-to-dealer market – is a bold move by Chamberlain. It was also the main reason Jones fell out of favour.

But Chamberlain says the LME needs to change its trading methodology to grow its business: "The LME market structure as it currently stands means some trading firms are more likely to go to our rivals than come to us."

The LME is facing real competition in base and precious metals (where LME will launch in July – more on this later) from larger, more diverse exchanges such as US players the CME Group and the Intercontinental Exchange as well as Chinese commodities giant the Shanghai Futures Exchange.

"I don't think the other exchanges are directly removing trades from the LME but our competitors are more effective at capturing new traders," says Chamberlain. "Essentially, we are not winning the battle for new traders."

The chief executive says he divides LME clients into fundamental and systematic traders. The systematics are pretty happy, he says, but "the fundamental traders want exposure to macro-trends so they like the other markets, because of their monthly structure, whereas the lack of monthly liquidity on the LME is problematic".

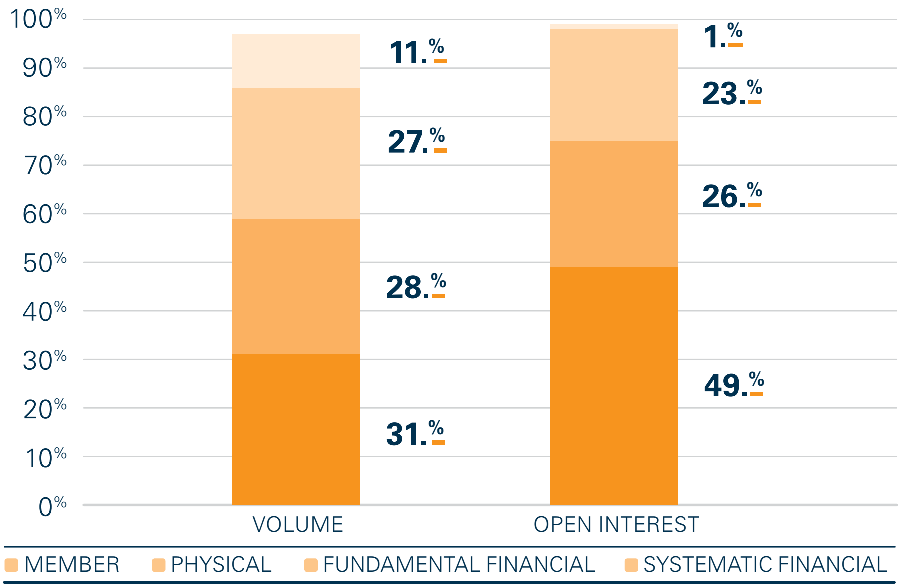
> THIRD TIME LUCKY

Chamberlain will have to tread carefully with his trading reforms but the discussion paper should help ensure he can avoid some of the problems that beset his predecessor, himself an experienced exchange leader.

"If you look back to last year, it was obvious we had a difficult relationship with much of the market because we were not being open and honest with our key stakeholders, which allowed a whole set of theories to circulate about what we were trying to do," says Chamberlain.

"The truth is we were never trying to futurise the market or force people to the third Wednesday contract but it is important now to contextualise what we are trying to do and explain our direction of travel."

LME MARKET ACTIVITY BY STAKEHOLDER GROUP (2016)



Every modern, healthy exchange has a range of customers, comprising pension funds, asset managers, hedge funds, proprietary traders, high-frequency traders and market-makers.

But the LME, as a physical market, is special because it also works closely with the metal manufacturers and consumers, whose interests are not typically aligned with professional trading firms for example.

"We are dealing with a diversity of voices, there are those who are conservative and don't want change, and others who prefer change. We had that with our warehousing reform initiative also."

Chamberlain seems well-liked by the LME's owners and traditional, physical clients partly because he oversaw in 2014-2015 a programme of warehouse reforms, thereby solving the LME's biggest headache at the time.

PHYSICAL TRADERS

The exchange's physical customers were so unhappy with the LME's warehousing model that Rusal, the world's top aluminium firm, even took the LME to court over it in 2014, before Chamberlain's reforms managed to placate them.

Yet Chamberlain feels that much of the enmity that characterised the last months of Jones' tenure has passed: "I feel the market has moved on in the last six months – it's no longer a case of the LME versus the market. Now I see the role of the LME as a neutral arbiter of the market and the challenge for us is to better understand the business of moving the market to a new model."

Chamberlain signalled further a cooperative stance when he said in his first public appearance as chief executive that he had delayed two product launches following requests from clients.

He said on April 24 the launch of a new version of matching engine

> "It was obvious we had a difficult relationship with much of the market because we were not being open and honest with our key stakeholders"

LMEsmart had been delayed by two weeks and the LME's first foray into the precious metals market with LMEprecious had been delayed by more than a month to July 10.

He said at the time: "It is important for exchanges to be sympathetic [to clients] so we are going to accede to requests for a couple of weeks grace to ensure that everyone is there on day one."

PRECIOUS METALS

Chamberlain told Global Investor LMEprecious, which will take the LME into the precious metals market for the first time, is interesting for two reasons.

"Firstly, no-one has launched a gold contract with the quality of dealer consortium we have and there is no loco-London physically delivered gold contract. My sense from looking at the other exchanges is that this is a market that is going to evolve rapidly given the new capital requirements and the regulatory push towards transparency."

Chamberlain also said he and his precious team is already looking at launching gold and silver options, and platinum and palladium futures. But he is more circumspect about the LME's prospects to move into other commodities outside of metals, one of Jones' big ambitions.

"We might get there one day but for now I see the strategy as being contiguous to our existing product areas. We truly want to become the London Metal Exchange and the opportunity in ferrous and precious are multiples bigger than in the base market. Our market structure reform also affords more than enough expansion opportunity," Chamberlain concludes.

Chamberlain faces a major challenge keeping the LME's diverse client base onside as he looks to introduce his own reforms. The results of the discussion paper should present a template for change however and could herald a more progressive chapter in the exchange's long history.

Flows BECOME A flood

The drift towards ETFs and high-alpha strategies has accelerated following the public criticism of index-hugging asset managers. But active share should not be the only consideration, says **Paul Golden**

The active versus passive debate has rumbled on for many years – with assets under management steadily flowing to the latter – but since the turn of the year a raft active managers have reconfigured their business models to reflect the shift in investor appetite.

The market has bifurcated to avoid the dreaded middle ground of index-hugging. Reports by the European Securities Markets Authority, which estimated last year that between 5% and 15% of managers charged active fees for largely replicating an index, and the UK's Financial Conduct Authority have further pushed demand for low-cost passive products or high conviction portfolios.

In late March the world's largest asset manager Black-

Rock announced it was revamping its active equities group and shifting billions of dollars run by traditional stock pickers into quantitative strategies, in a move seen as a response to client demand for index-tracking exchange-traded funds (ETFs). When the switch was announced, the company's global head of active equities referred to fee compression driven by competition with ETFs and regulatory pressure on the active equity model. The shift in demand was overwhelming; 2016 figures showed that BlackRock experienced significant outflows from its active equity funds and received record new money into its ETF business.

Less than a week after the Blackrock announcement, Fidelity International announced the launch of two income-focused smart beta ETFs – Fidelity Global Quality Income Ucits ETF and Fidelity US Quality Income Ucits ETF. It said the funds – the first of their kind for the company – would provide exposure to high quality companies that pay attractive dividends, based on the premise that companies with stable earnings and cash flows outperform over time. Nick King, head of ETFs at Fidelity International, expects that demand for smart beta strategies will continue to accelerate with investors continuing to favour low-cost products but ones that offer differentiation from their peers.

Also in April, Aberdeen Asset Management's global head of distribution revealed that the new business – that would emerge following the planned merger with Standard Life – intends to build a smart beta offering. While he reaffirmed the company will remain committed to active management – hardly surprising given its historical commitment and company culture – he added that it will also monitor the market for mutual fund ETFs.

Smart beta pioneer Rob Arnott, founder and chairman of Research Affiliates, sounded a cautionary note recently, however, taking issue with two assumptions that form the basis for how many investors view factor alpha and smart beta strategy alpha. He says that many wrongly suppose that past performance is the best prediction of the future performance of a factor tilt or smart beta strategy and that the tilt or strategy has a constant risk premium (the return above the risk-free rate) over time.

> “Managers need to be able to communicate how their portfolio differs from the market, the process that leads to the inclusion or exclusion of stocks and whether the process sounds sensible”
>
> **Ben Peters, Evenlode Income Fund**

ACTIVE SHARE

The opposite approach to joining passive managers is, of course, to take an increasingly high conviction approach – rather than competing on cost managers move further away from the replicatable benchmarks and seek to add more alpha. Active share has become the established metric – benefiting from being easily understood – for investors to substantiate whether they are actually receiving the active management for which they are paying.

However, several managers interviewed for this article cautioned that the measure can be misleading in isolation, pointing out that it should not be assumed that a fund will outperform just because it has a high active share – it merely rules out the possibility of benchmark hugging. A high active share figure means that performance is very likely to differ from the market, but that could be negative, even if other funds with similar active share outperform. Among the giant global asset managers Fidelity has perhaps been the most critical of the use of active share as a guide to pick funds.

According to Ben Peters, co-manager of the Evenlode Income Fund (which has high active share of 80.2%) it is crucial that this observation is followed up with deeper questioning. "From the manager's perspective, they need to be able to communicate how their portfolio differs from the market, the process that leads to the inclusion or exclusion of stocks – or indeed whole segments of the market – and whether the process sounds sensible given the manager's aims."

The answers to these questions – combined with the knowledge that the manager is indeed being active – will provide investors with a sound basis for anticipating decent long-term outcomes. "In the shorter term, if a manager is truly active they will almost certainly go through periods of underperformance," adds Peters. "A

> “It is important for investors to understand the manager's philosophy, process, ownership structure and incentives”
>
> **Dan Brocklebank, Orbis Investments UK**

Global Broad Sector	Investment Trusts NAV TR to 28 Feb '17 over 1	3	5	10	UK ETF NAV TR to 28 Feb '17 over 1	3	5	10
Equity	27.43	38.87	70.71	99.82	32.27	36.74	61.69	65.43
Aggressive Allocation[1]	21.23	38.32	64.00	79.62	32.27	36.74	61.69	65.43
Miscellaneous	14.64	25.28	40.05	49.18	8.64	55.71	39.51	-
Fixed Income	16.24	26.32	60.18	83.09	14.24	22.21	25.22	92.40

Source: Fund Consultants LLC and Morningstar

> "All too often I see three or four star ratings for funds that closet-track the index"
>
> **Steven Holden, Copley Fund Research**

sensible process will help the manager and their investors see through these less positive periods, which is critical if outperformance is to be achieved over the long run."

Dan Brocklebank, head of Orbis Investments UK, says the firm has always known that it cannot expect to deliver superior performance if it is doing the same thing as everyone else. The result is a fundamental, long term, contrarian investment philosophy that aims to identify the relatively small number of companies that it considers to have meaningfully undervalued share prices.

But he agrees that active share still doesn't tell the whole story. "In addition to knowing how active a manager is, it is important for investors to understand the manager's philosophy, process, ownership structure and incentives. The key question to consider is whether an active manager is truly offering something different (and better) than a low-cost tracker fund."

Indeed, new study by Fund Consultants that revealed that ETFs do not necessarily outperform active investment trusts, net of fees. The research found that in all four of the studied categories investment trusts outperformed ETFs over certain time periods, most notably over the medium to long term in the equity and aggressive allocation categories.

BEYOND ACTIVE SHARE

While this is not something that any manager can guarantee in advance, the approach Orbis has taken is to offer its clients a refundable performance fee structure and invest its own money alongside that of its clients. "This not only ensures that we have a strong incentive to invest differently, but also that we feel our share of the pain when we underperform," adds Brocklebank.

Last year Morningstar studied a subset of European funds investing in European equities to see how their active share had developed from January 2005 to June 2015. The report found that funds with higher active shares received the lion's share of new assets and delivered better investment results than the least active funds across most of the research period. However, the authors also warned that because dispersions in returns and risk characteristics become much wider as a portfolio's active share rises towards 100%, investors should not rely solely on active share when selecting funds.

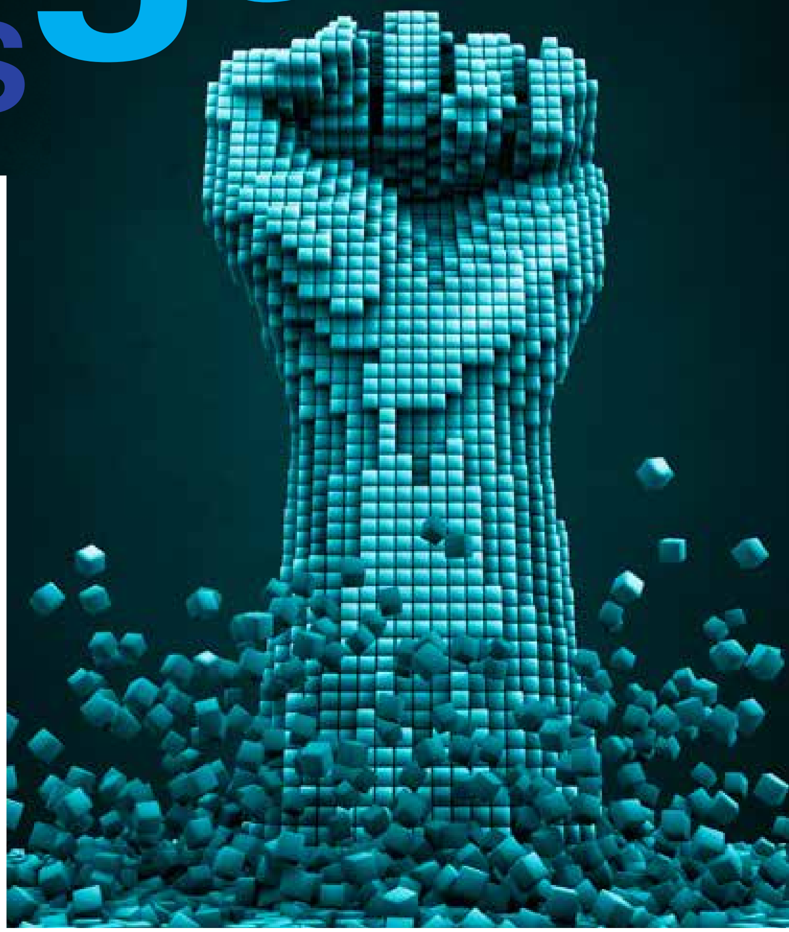
While some active managers have embraced ETFs enthusiastically as investment tools in their funds this is not necessarily the best approach. But Ben Kumar, investment manager at 7IM says that while the firm continues to use ETFs as a liquid way of accessing gold, it has reduced its overall use over the last few years. "For example, five years ago 35% of our AAP Balanced Fund was in ETFs compared to 15% today. In essence, there are cheaper and more flexible options out there, such as futures contracts and [other] index trackers."

Copley Fund Research founder, Steven Holden, suggests more information needs to be made available to investors and is critical of the quality of the ratings made available by the fund information providers. "All too often I see three or four star ratings for funds that closet-track the index, particularly in the US where the benchmark has performed so well. Anyone tracking it has also performed well and hence receives a good rating," he says.

This view is shared by James Budden, director of retail marketing & distribution at Baillie Gifford, who says there is documented evidence to show that active managers with low turnover indicative of a long-term approach, high active share and engage positively with companies they invest in outperform net of fees. "It follows that active managers should illustrate that they meet such criteria if they want to be seen as different from the index-huggers and traders."

Holden also says that many investors who have access to active share are not using it correctly. "In some cases they believe that the higher the active share the better," he concludes. "In reality, once a fund is above 75% active share it matters little if it is 76%, 85% or 95%."

Strength IN NUMBERS



The pooling of UK local government pension assets into eight pools promises huge economies of scale, says Ceri Jones, but for now activity centres on the nuts and bolts of implementation

In the early days of the Local Government Pension Scheme (LGPS) pooling project, debate focused on the relative attractions of a regulated or unregulated structure. But the die was cast last March when local government minister Marcus Jones hinted heavily that the government endorsed the use of vehicles regulated by the Financial Conduct Authority (FCA) for the 89 schemes to co-invest their assets in the eight pre-agreed pools.

Their structure, standards and systems provide "substantial assurance," the minister said. "As a minimum, I would expect to see a single entity at the heart of any proposal, with responsibility for selecting and contracting with managers, as well as the employment of staff."

The collective investment vehicle (CIV), set up voluntarily by London's local authorities in December 2015, London CIV, has become something of a prototype and is based on a regulated Authorised Contractual Scheme (ACS) structure.

Contrary to the common misconception, the ACS structure is not incompatible with certain asset classes such as illiquid assets and the passive life funds run by the giant asset managers. An ACS can be used for all types of asset class if structured appropriately. State Street, for instance, operates two ACS vehicles that directly hold property.

Most pools are setting up their own ACS; two are hiring an operator, the Wales pool and Access. The eight pension funds in Wales, with combined assets of £15bn, have so far been working under a memorandum of understanding, but to engage an operator they need to enter a legally binding Inter Authority Agreement (IAA), defining the powers and obligations of the participating authorities and the joint governance committee. The appointment of an operator should be announced shortly.

Access, which covers the English counties of Northamptonshire, Cambridgeshire, East Sussex, Essex, Norfolk, Isle of Wight, Hampshire, Kent, Hertfordshire, West Sussex and Suffolk, also plans the so-called rental option but has not yet gone out for procurement.

Other pools have modified their stance. For example, the £23.2bn Brunel pool, which covers the Environmental Agency Pension Fund (EAPF) and nine local authority funds in the south west as well as Oxfordshire and Buckinghamshire, is using an ACS in phase 2 but a non-regulated common investment in phase 1. "We decided not to go for an ACS structure for the time being,

LGPS pool	Collaborating Local authorities and government bodies
London CIV	London's 32 boroughs and the City of London Corporation
Northern Pool	West Yorkshire, Greater Manchester and Merseyside
Central	Cheshire, Leicestershire, Shropshire, Staffordshire, West Midlands, Derbyshire, Nottinghamshire, Worcestershire and the West Midlands Integrated Transport Authority
Brunel	Avon, Cornwall, Devon, Dorset, Gloucester, Somerset and Wiltshire, Oxfordshire, Buckinghamshire and the Environment Agency Pension Fund
Access	Northamptonshire, Cambridgeshire, East Sussex, Essex, Norfolk, Isle of Wight, Hampshire, Kent, Hertfordshire, West Sussex and Suffolk
Wales	Carmarthenshire, Cardiff, Flintshire, Gwynedd, Powys, Rhondda Cynon Taff, Swansea, and Torfaen
Border to Coast	Cumbria, East Riding, Surrey, Warwickshire, Lincolnshire, North Yorkshire, South Yorkshire, South Yorkshire Passenger Transport Pension Fund, Tyne & Wear, Durham, Bedfordshire, Northumberland and Teesside
LPP	Lancashire, Berkshire and the London Pension Fund Authority

but instead to rely primarily on manager-operated funds as it is cheaper and easier for now," says Naomi Monplaisir, project officer, Brunel Pension Partnership. "We are therefore expecting to be regulated under Mifid II but not AIFMD."

APPROPRIATE STRUCTURE

From a practical standpoint, one advantage of the regulated ACS structure is that control of decision-making is well-defined. It provides clarity when many stakeholders may want some sort of involvement and have a duty of oversight – but not to encroach on the actual decision-making. However, contravening FCA rules – and the penalties and reputational damage that implies – is also an issue in an unregulated structure.

"Each of the pools is taking the most appropriate approach for its underlying funds," says Nick Buckland, senior investment consultant at JLT Employee Benefits. "For example, pools that already have a significant amount of internal management will have a different structure from ones that have little or none. While there is still a great deal of work for each pool to get through ahead of the April 1 2018 deadline, most of the big issues have been resolved. It is now a case of working through the necessary activity to ensure pools become operative and are FCA compliant.

"It is definitely not a one-size fits all approach. Without the work that has been undertaken within the pools to assess the best structure it would have been very easy to assume there was a single best solution for all."

There are still issues to be resolved. "One of the things most pools have to establish is how the pension funds can actually hold the pools to account in practice," explains Bridget Uku, group manager treasury & investments at Ealing County Council.

"The pools are effectively captive, while [an individual pension scheme] with a fund manager you can just disinvest and walk away. The rules for holding the pool to account will need to be clearly laid out well before deploying the ultimate recourse of dismissing one or more directors of that pool by the oversight committee. This would need to be laid out in an operating service level agreement, with a sound reporting and performance framework, covering a range of issues including benchmarking ESG and voting."

It is not clear whether in the event of a manager underperforming the pool will be able to terminate the manager without recourse to the underlying pension funds, or whether the funds must be informed as is currently the case. "At the moment, my understanding is that the pool will phone and communicate that an asset manager has, say, suffered a massive walkout of key personnel and the fund will decide whether or not to terminate the agreement. In future the funds won't be acting on their own and will have to be considerate of others in the pool," Uku adds. Funds will surely be more comfortable acting in unison as the pools progress.

DELAYED DECISIONS

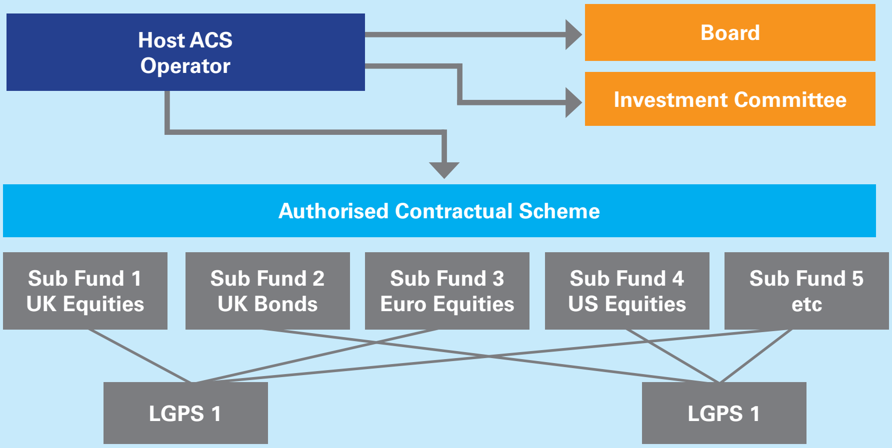
The UK regulator's decision on how to deal with European rules on investor classification has not yet been made. The Markets in Financial Instruments Directive (Mifid II) classifies local authorities as retail investors, to protect small treasury managers from being miss-sold complex investment products, but some argue this could deny pools access to alternative and illiquid asset classes and even to prompt a fire-sale of complex assets they already hold.

"This could and should have been resolved by now," says Chris Bilsland, non-executive director at London CIV. "This potentially reclassified LGPS schemes as retail investors. Of course the FCA is out to consultation on this, but unless there is a sensible solution, say to exempt asset pools, then this is a very unwelcome and unnecessary risk to pooling plans."

Brunel's Monplaisir believes an announcement will be made shortly: "Our understanding about client classification and Mifid II is that a practical way forward, where LGPS funds will have a relatively straightforward route to elective professional status, is expected to be formally agreed by the FCA later this month, but we await formal confirmation."

Andy Todd, head of UK pensions and banks, sector

TYPICAL BUILD SOLUTION STRUCTURE



Source: Capita

solutions, EMEA at State Street, points out that the criteria for stepping up to professional investor status is not too onerous. The first criteria is the value of investible assets and each would qualify on that basis, and the other two questions relate to the experience and qualifications of personnel.

Most practitioners believe the government's high level guidance makes sense as the pools are very different; for example the London CIV has 32 stakeholders to service, while other pools have only three. But they still face very demanding deadlines for implementing such a large-scale project, exacerbated by government delays on letting the pools know whether their proposals were acceptable, especially as submissions were made prior to Brexit, as the government was caught up in other projects.

"Each of the underlying administering authorities in each pool will have its own governance structures and processes to go through," says Buckland. "Ensuring that each of these are joined up, and that each committee has been given the appropriate opportunity to ensure that the pool meets their own requirements has been an organisational challenge by itself."

The pooling initiative has already produced significant fee reductions, and should hit the top end of Project Pool's estimates of £145m to £300m in cost savings over ten years. Uku says that at the beginning of the pooling discussions some participants believed there was no real need for the CIV, that perhaps instead all that was needed was to carry out joint procurements, but LGPS asset managers have come forward with fee reductions and she has spoken to many working for these firms who said that their senior managers would not have been convinced of the need to offer such generous discounts without the pressure brought on by the pooling agenda.

COSTS & BENEFITS OF SCALE

The longer term benefits have also been underplayed. "The ability to access and analyse data on the assets and their asset allocation will become far more tangible within an asset pool construct," explains Todd. "At the moment analysis is typically at the month-end, so a daily level of market intelligence around assets is a big change and must improve performance outcomes in future.

"Secondly, there will be significant new investment opportunities, well beyond the current remit, such as the ability to co-invest in private equity and global infrastructure, and this will also bring greater diversification."

Other cost savings will arise from administrators and custodians that have been putting in for this business, sharpening their pencils to improve their bids.

The second stage in the pooling process will be to launch additional sub-funds, perhaps white-labelled and targeted on a certain risk/return or theme. "Most, if not all, of the pools look to be setting up ACS and will have to follow quite a complicated process to meet regulatory requirements to set up sub-funds," says Bilsland. "People who are expert in this area are in limited supply and it is quite likely that access to expert advisers will be a limiting factor to quick progress, at least into the medium term. The only way to manage this will be to limit the opening of sub-funds but the problem should only be a two-to-three year phenomenon."

Capacity constraints are also feared as fewer investment managers will deal with larger mandates. "Some niche managers that offer very compelling strategies may not be able to scale up to the required level," says Buckland. "The pools are conscious of this, and will be putting in place procedures to ensure that they manage issues as they arise. While a big part of the pooling process is for the underlying funds to demonstrate operational savings, this must never be at the cost of investment performance. The majority of LGPS funds are less than 100% funded, and therefore will need consistent long-term performance to reduce the funding gap."

A number of pools have appointed chairs, directors and non-executives. Hiring experienced staff to fill regulated roles is difficult but the pools are having some success in attracting people who previously worked in the City and are looking for a second career, with all but one of the pools offering the opportunity to relocate outside the capital.

MACHINE LEARNING

CRACKING THE CODE

Asset managers are turning to machine learning in their quest for alpha, although technological limitations mean that human input remains critical. **Paul Golden** investigates

Machine learning – technology that creates relationships between known data points and uses those relationships to make predictions on new data – enables computers to learn like a human, operating with pre-defined rules but adapting as more empirical evidence is gathered and interpreted.

BlackRock's multi-asset analytics engine Aladdin uses machine learning to identify patterns in portfolios consisting of stocks, bonds, mutual funds, ETFs, options and structured products and the use of the technology within the asset management industry continues to expand. In March, Acadian Asset Management announced that it would use the Bing Predicts macroeconomic indicators offered by Microsoft to augment its investment forecasting frameworks. Bing Predicts is a prediction engine that uses machine learning from data on trending social media topics, as well as sentiment towards those topics, along with trending searches on Bing.

Richard Bateson, founder of Bateson Asset Management and former head of MAN AHL's Dimension fund describes his BAM Lexicon fund as being dedicated to applying artificial intelligence techniques to predicting and adapting to market changes in real time, initially in futures markets although there are plans to extend it to equities.

Rather than using a fixed formula or equation to calculate a trading signal (such as trends from prices), machine learning can combine diverse sources of data to provide a prediction on future price movements, he explains. "It is the next generation of systematic trading. Since as it is not based on a fixed formula it can evolve with time to cope better with changing market conditions. The increased computing power available through big data can be leveraged to provide predictions simultaneously across many markets."

What differentiates machine learning from more traditional quantitative approaches is that when new or additional data becomes available, the computer algorithms adjust to this information without human intervention, says 3Edge Asset Management chief investment strategist, DeFred Folts.

"These models typically use parameters built into their programmes to form patterns for the investment decision making process," he says. "Traders may construct systems that utilise machine learning in order to identify very short-term market trading opportunities. In addition, computer modelling is not encumbered by the human biases that can compromise investment decision making."

Patrick Flannery, co-founder & CEO of capital markets software developer MayStreet, suggests that use of machine learning differs little from more conventional research methods in that the output has to be tested against a wide range of assumptions to ensure data isn't missing and that it [produces] a valid output.

> "The increased computing power available through big data can be leveraged to provide predictions simultaneously across many markets"
>
> **Richard Bateson, Bateson Asset Management**

AUTOMATED PROCESSES

In the long term the biggest impact from machine learning on finance will be automating business processes, according to Flannery. "You can come up with a long list of functions currently performed by humans that can be improved and if not entirely automated, at least partially automated. For example, parsing and getting the terms for bond deals completed automatically where the fixed income reference data is often still generated by humans."

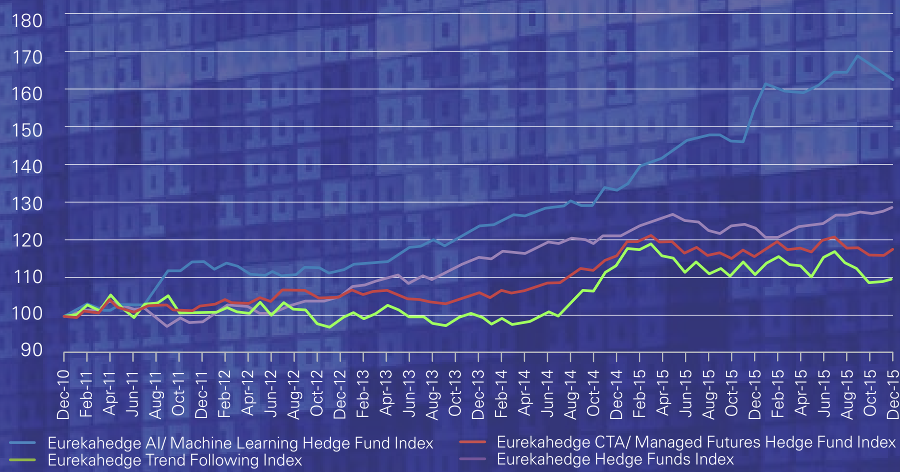
As social media became ubiquitous, quant funds started to apply natural language processing to associate crowd sentiment with trend formation and data providers now offer a range of sentiment data. The challenge, suggests Lucena Research co-founder & CEO Erez Katz, is that there isn't enough historical data with which to conduct thorough quantitative research. "Quant research consumes historical data to predict the future. Since crowd-based sentiment is a relatively new phenomenon, model training and backtesting are still somewhat limited, so big funds use such signals with great interest but also with caution."

Martin Froehler, CEO of algorithmic trading systems marketplace Quantiacs observes that while machine learning offers a broad set of advanced tools to detect patterns in historical data, this data is very noisy and mathematically pretty close to a so-called random walk. The random walk theory suggests that stock price changes have the same distribution and are independent of each other, so the past movement or trend of a stock price or market cannot be used to predict its future movement. "If not applied correctly, machine learning will find patterns where there are none and overfit the historical data," says Froehler. "Overfitted models usually have very low, if any, predictive quality."

The benefit for managers is that it is possible to search the data for patterns at a whole new scale, potentially detecting patterns that no human would find. On the downside, machine learning methods typically have a lot of parameters or degrees of freedom to fit the model to historical data, which doesn't always result in the best models on new data. "It can also be tricky to formulate machine learning problems for financial forecasting, as standard objective functions such as the lowest error/least deviation don't work. They often return trivial estimations – such as 'don't trade' signals – since the data is so close to a random walk."

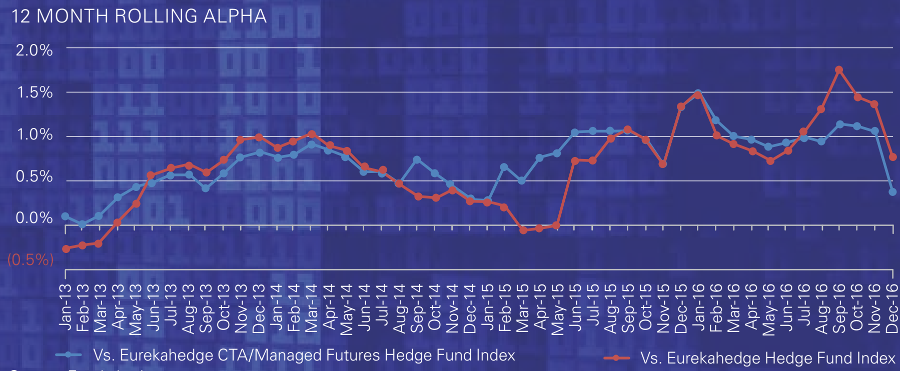
Flannery says the major challenges to applying machine learning to asset management are getting the right data into a format that is amendable to the downstream workflows and structuring the problem correctly. "There are a lot of tools and methods that can produce good results,

AI/MACHINE LEARNING HEDGE FUND INDEX VS. QUANTS AND TRADITIONAL HEDGE FUNDS



Source: Eurekahedge

12-MONTH ROLLING ALPHA RELATIVE TO QUANTS AND TRADITIONAL HEDGE FUNDS



Source: Eurekahedge

> Machine learning shouldn't be mistaken for something that can overcome bad research or business processes
>
> **Patrick Flannery, MayStreet**

but they require data and structure," he says. "The term machine learning shouldn't be mistaken for something that can overcome bad research or business processes."

There must also be sufficient relevant historical data to train the machine learning algorithms and extract statistically accurate predictions. In most non-financial machine learning applications there are many contemporaneous data sets, but in financial markets there is only one history and the histories of different financial instruments are often closely related, particularly in risk on/risk off environments.

LIMITED UNDERSTANDING

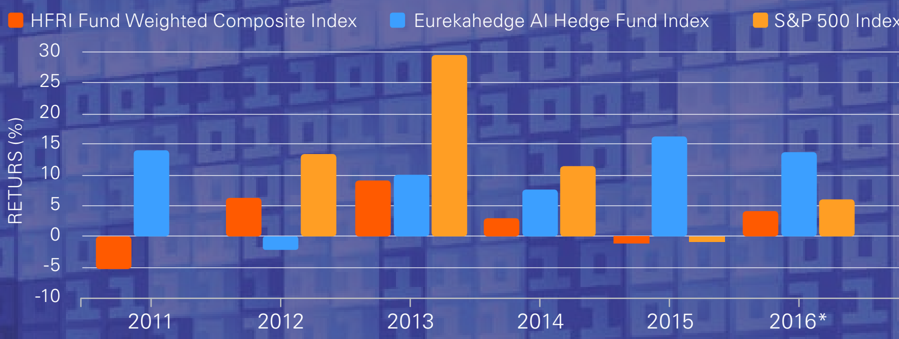
Also, machine learning only really works if the current environment if similar conditions are contained within its historical training data and often fails on unexpected or unpredictable events, adds Bateson. "It has no concept – at present – of understanding, for example, the implications of a Macron win versus a Le Pen victory in the French presidential election."

According to Henri Waelbroeck, director of research at multi-asset trade automation solutions provider Portware, the main danger lies in model risk. "In 2009 we all suffered the consequences of inadequate copula or probability distribution models, which seemed to work very well until the MBS implosion. Machine learning techniques are also models that can be wrong in a way that is not apparent until something happens. In a world where asset pricing is increasingly driven by quant strategies, diversity of strategy is going to be essential and I worry that there might not be enough regulatory disclosure to track this."

In this context the human element remains crucial. Edgar van Tuyll van Serooskerken, head of quantitative strategies at Pictet Wealth Management observes that any investment opportunity identified by the technology is studied by his investment experts before it is acted upon.

MACHINE LEARNING'S WINS AND LOSSES

AI STRATEGIES PERFORMED BETTER AGAINTS THE INDUSTRY THAN THE STOCK MARKET



Source: Eurekahedge, Hedge Fund Research, Inc., Bloomberg
*Returns YTD through September

Bloomberg

> "If not applied correctly, machine learning will find patterns where there are none and overfit the historical data"
>
> **Martin Froehler, Quantiacs**

This is important, says Folts, because in a complex system with so many inherent uncertainties it simply is not possible to include every single variable that could impact a solution. Folts notes that Mary Cummings of the Institute of Electrical and Electronics Engineers (IEEE) Computer Society says that allowing a human to coach a highly-automated system produces results up to 50% better than if the automation were left to its own devices.

BAM Lexicon posted a +1.6% return in February versus +0.3% for CTAs (commodity trading advisors) and is up +1.2% year-to-date says Bateson, who also refers to data from Eurekahedge showing that artificial intelligence/machine learning (AI/ML) hedge funds have out-performed CTAs and trend followers consistently over the last five years with higher returns and Sharpe ratios. "In addition, the AI/ML index is negatively correlated to the average hedge fund and has virtually zero correlation to CTA futures and trend-following strategies," he adds.

However, in light of the observations of Folts and van Tuyll van Serooskerken highlighting the value of human analysis and Eurekahedge's view that losses suffered following Donald Trump's US election victory illustrate machines' inability to always predict the future, the revelation that returns don't always match the hype is perhaps less of a surprise. So although the Eurekahedge AI Hedge Fund Index has largely beaten the average hedge fund, Bloomberg data indicates that it lagged the S&P 500 Index in 2012, 2013 and 2014.

It is inevitable that as the technology evolves and machines learn from their experiences, their ability to predict human behaviour and therefore factors affecting markets will improve. Katz does not expect asset management to become completely automated any time soon, though. "Eventually, machines will dominate decisions but people will still need to apply their intuition and discipline in order to gain the upper hand," he concludes. "We are still light years away from removing human cognitive reasoning from the investment decision process."

PARTICIPANTS

- **Alastair O'Dell,** Global Investor Group (Chair)
- **Ashore Badou,** securities lending analyst, BMO GAM
- **John Arnesen,** global head of agency lending, BNP Paribas Securities Services
- **Mick Chadwick,** head of securities finance, Aviva Investors
- **Stephen Kiely,** head of sales and relationship management, securities finance Emea, BNY Mellon
- **Donia Rouigueb,** securities lending & collateral management solutions, Caceis Investor Services
- **Mark Hutchings,** chief operating officer, Isla

PROSPECTS PROGRAMM

Beneficial owners and securities lending experts met in London to discuss future of securities lending including new routes to market, indemnification arrangements and trends in collateral usage

O'Dell: Ashore, how is your programme progressing? Which routes to market do you use?

Ashore Badou: We have quite a small, boutique agency lending programme, whereas in our previous F&C guise it was in-house. I look after our programme, which has been running for seven years. We initially had two lending agents and at the moment we are with State Street. We currently lend on three separate ranges.

We're not currently signed up to a CCP. We were all hit by 2008/09 and even now the investment managers are wary. Whenever we want to introduce anything they think about it a lot and we need to get over a few hurdles. We try to explain things such as transparency and reduced processing costs and defaults, but it is a slow burner as all associated risks need to be articulated in full.

Chadwick: You're not unique – we are not yet signed up to a securities lending CCP. Most buy-side firms have an innate antipathy towards central clearing. They were dragged kicking and screaming into clearing OTC derivatives – but this should make the education and approval process slicker for securities lending. However, unless we come under serious commercial sell-side pressure it will not move up the priority list.

O'Dell: Why hasn't that pressure materialised?

Chadwick: I think it's a question of when, not if, as the ship has sailed for Basel III RWA rules. There's a world of difference between 2%, 20% and 100% so the squeeze will come. These metrics are being measured on the sell side, but often only at the top of the house so it may take

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a while for pressure to trickle down to trading desks.

> **Rouigueb:** Sell-side participants usually push the buy side to adapt the business in order to comply with the regulations that they face. Beneficial owners will only think about it if they see their revenues decrease. But as of today we don't see that many sell-side participants in CCPs, or pushing to enter because even they say it is too expensive regarding haircuts and costs.

> **Kiely:** It has to manifest itself in price, which is demand-driven. If it costs five bucks there's going to be ten bucks of revenue, otherwise beneficial owners will say it's not worth it. Some may start to feel lower utilisation and not be part of bigger trades – the geopolitics of certain jurisdictions mean borrowers are less willing to over-collateralise. When the borrower initiates two-tier pricing there will be movement, but not before.

> **Chadwick:** There could be potential advantages to CCPs for agent lenders, not just the sell side, if you've got clients domiciled in jurisdictions with enforceability issues or capital implications for indemnification provision.

> **Arnesen:** It's a good point. Certain trades are net-able on a CCPs so we may gain an advantage using this route. Esma chair Steven Maijoor said he wants lending in a cleared structure. He'll get it, but we're still debating nine years on and may not have it in another three. We deal with banks that calculate their own live RWA at the desk level and still I don't feel pressure. I'm amazed.

> **Hutchings:** It's very low on the to-do list. Agent lenders talk about it being possible but where's the driver to make CCPs happen? There are still a number of hurdles to overcome, but once they are the agent lenders need to sell it to their underlying clients. If you're not putting it high up on your to-do list, it's not going to happen anytime soon.

> **Arnesen:** If I'm not convinced by the concept of CCPs I'm going to have a hard time selling it.

> **Badou:** CCPs need to give us the minutiae. I haven't heard anything tangible about transparency, particularly reporting, and I need to report every comma and full stop to the investment management team. I need to know about every piece of collateral – what it's doing, how it's priced – and I can't get that from the CCP. This has echoes of the old Euroclear automatic lending programme – the reason we pulled out was its lack of transparency and reporting.

> **Kiely:** CCPs have come to understand margin haircut and transparency issues. My concern is that this is yet another thing that beneficial owners, especially smaller ones, have got to contend with. There is a legal cost to making amendments or re-papering to include a CCP. On top of this, SFTR is coming up.

“Most buy-side firms have an innate antipathy towards central clearing”

Mick Chadwick, Aviva Investors

> “I could not go to our board or fund ranges and announce that we are not getting indemnified. They see it as a vital cog”

Ashore Badou, BMO GAM

O’Dell: **Is the pledge structure of CCPs a problem or can it be overcome?**

Arnesen: For CCPs I would have to alter the agreement from title transfer to pledge and convince clients that that’s okay. Then, I need to explain to my risk managers how indemnification is either rendered obsolete, still has to exist or applies to the CCP. They’ll want to know the entire risk management structure, which CCPs won’t share.

Rouigueb: With CCPs, the collateral is technically not in your house, only pledged. Ucits funds cannot technically take pledges. Regarding the other types *of clients, they might be able to accept the pledge but may not be able to post it elsewhere.*

Arnesen: This came up at an FSB meeting in April 2015. The industry said: ‘Don’t worry, rehypothification doesn’t happen at the agency level’. But someone argued that if the title has passed to the client they could re-use it – they wouldn’t prevent them doing so. It was a long conversation.

Chadwick: The whole SFTR disclosure obligation is based on creating awareness of the agreements under which collateral is re-used. But the issue for beneficial owners is that neither pledge nor CCPs is going to be a comprehensive solution, it will co-exist alongside the current model. It just adds complexity.

Rouigueb: Our clients might want to re-use non-cash collateral to cover exposures with their clearing brokers. They know what kind of collateral they have in-house and they would like to be able to move it. Clients have asked us for this – I have had the question on RFPs.

Arnesen: It’s interesting that you get clients saying they will use the cash collateral for the lending programme and non-cash for other purposes. And, they’re going to slightly change the model so that it won’t appear that they are collateralised. Most of our institutional clients would say the lending programme is blocked off. But, in theory, it’s doable because they’re their assets.

Kiely: The only time we see that is with cash collateral, particularly when clients have a cash transformation programme with us, lending their assets in order to raise cash.

Chadwick: Even if it’s legally permissible to re-hypothicate non-cash collateral, the operational mechanics mean it’s very difficult to move that out of the tri-party ecosystem and put it to work elsewhere. It’s problematic for Ucits – the depository needs to see that collateral and record it.

Hutchings: Imagine the risk processes you’re going to have to go through! And, leaving all this aside, the regulators are going to be very concerned about this whole activity. The collateral is meant to be there for a purpose. SFTR reporting will come into effect in late 2018 and regulators will be looking hard to see if there are any issues, especially around the re-use of collateral. Also, regulations around securities lending for Ucits funds are subject to interpretation and as such this restricts their potential. In this instance we are talking about doing the opposite something the current interpretation of the regulations does not allow.

O’Dell: **What is the current thinking of local regulators on the issue?**

Hutchings: There is some movement. It’s all about the interpretation of the Ucits Directive and Esma’s guidelines and local regulators apply the law differently. The largest ones, Ireland and Luxembourg, take different views. Luxembourg has taken the directive’s wording literally, which doesn’t actually make clear anything about pledge and only references title transfer. Ireland has followed the Esma guidelines, which leaves the possibility of providing collateral under a pledge open. The point is that interpretation of the regulations could suggest pledge is possible.

Rouigueb: Clients want to follow the philosophy of the Esma guidelines which say you need ‘real’ collateral, whatever jurisdiction you are under. Clients are very cautious when it comes to regulators, even if they are technically right.

Hutchings: Isla has a working group looking at Ucits. According to our latest Securities Lending Report, globally, approximately 45% of lendable securities come from mutual funds, which includes Ucits, with on-loan balances of 15%. This is out of line other lender types that see far higher on-loan balances compared to lendable and we highlighted this point in our Capital Markets Union response to the European Commission, showing major untapped potential for improving liquidity in the market. Asset segregation would also be an issue. Also a lot of people are interested in pledge structures and so we are working with legal counsel to come up with standard market pledge documentation.


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Kiely: The development that could have significant effect on tri-party collateral is SFTR. If every single collateral movement must be reported, it could mean reporting 1,000 movements rather than a handful. What about the cost, who is getting indirectly charged?

Hutchings: This is something of particular concern for the small beneficial owners, the small Ucits funds. An Isla member recently said a big concern of SFTR is transaction reporting costs, as they are going to hit each individual account. The Emir rules state there's a charge of €2,000 per account, so every single Ucits sub-fund is going to get charged that amount, and that's before the movement costs on top of that, which still has to be fixed. This could have the impact of making the cost of lending unviable for those smaller funds.

O'Dell: Is peer-to-peer lending even more problematic for beneficial owners?

Chadwick: Peer-to-peer is tricky, if I look at the complexity of our fund structure and the sometimes bureaucratic guidelines for counterparty eligibility criteria. They were drafted pre-crisis assuming that counterparties are rated banks subject to prudential regulation. Even if you are prepared in principle to contemplate peer-to-peer, you're trading in an OTC environment with a non-bank entity. It opens a whole new front with reputational risk and other issues.

Badou: You think you know who you're trading with, but if your agent lender is trading through an affiliated borrower you would use up your risk concentration and perhaps on occasion breach your parameters.

Kiely: This may be a hurdle for the buy side. Do they want to go through this rather than trade with, say, 50 borrowers of a certain rating? They can hang their hat on an agent's approved list as it's already done all the credit intermediation. With peer-to peer they have to do an element of this themselves.

Rouigueb: Peer-to-peer in an interesting idea but we need to be practical. Think about all the ratios, systems, risk control, reporting, settlements etc. Would this model cover these costs?

Arnesen: Peer-to-peer may not disintermediate the agent lender – it might just reinvent them.

Kiely: Peer-to-peer platforms are a child of their times. BNY Mellon owns DBVX so we're already gearing up. They are all web-based, so there is very little IT to build, and they are repo-focussed as broker-dealers have reduced capacity in short term repos.

Peer-to-peer is a supplementary product, I see it as an outlet for excess cash. If the cash reinvestment desk cannot place it I can see them putting some through a peer-to-peer platform.

> Peer-to-peer is a supplementary product, I see it as an outlet for excess cash
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> **Stephen Kiely, BNY Mellon**

Chadwick: The sell-side used to be worried that peer-to-peer would cannibalise their OTC franchise. Now they've got limited repo capacity with their own balance sheets so they appear increasingly prepared to facilitate trading on a peer-to-peer platform. Historically, most buy-side firms are price takers so if two buy-side firms trade, who sets the price?

Rouigueb: Price discovery is less of an issue nowadays as we now have all these data providers and benchmark reports.

Arnesen: If, for example, a cash-rich institutional client wants cash and an insurance company is long of it, they may want to use our facilities. I wouldn't indemnify them, of course, but might charge a fee. There's no way they would put in the infrastructure, given the hoops they'd have to jump through internally. The rise of platforms such as Elixium will be interesting to watch, and we'll take our cue from that.

O'Dell: Would you use a peer-to-peer platform?

Badou: We've had discussions. They produced some quite big numbers on the uptick, what we could add incrementally to securities lending. Maybe I'm being naïve, but I don't think it's that convoluted if you have a good link with your agent and good technology, which is all on the cloud. It's good for incremental income and liquidity, but selling it to buy-side boards, given the risk parameters and transparency, is hard.

We managed to on-board a few of our funds to lend securities a few years ago and they have since made significant gains in their sector because of the added value. They were pleasantly surprised at the impact securities lending had on their fund performance.

Kiely: A couple of years ago, a beneficial owner would have said it was

too complex to set up, even if they had excess cash sloshing around. Since then it has become a drag on performance so they are interested. At the moment, every basis point (bp) matters.

Chadwick: Yes, especially given the current interest rate environment and the relative performance culture of long-only asset management. A couple of bps can really move the needle for low-fee passive products. Over the last 18 months I've had clients beat me up about not being quick enough to mobilise – I've never had that before. My clients aren't prepared to dial up the risk but, within their agreed risk appetite, they're keen to maximise every opportunity. If you trade via a bank you leave some performance on the table but if you disintermediate and trade directly there is potential reputational risk.

O'Dell: Indemnification has become much more costly to provide and there is increasing pressure on beneficial owners to go without it. Could you continue without indemnification?

Badou: I could not go to our board or fund ranges and announce that we are not getting indemnified. They see it as a vital cog. They see it as another layer of insurance, along with the collateral and the risk parameters on that collateral. We have a very good indemnification at the moment and they're comfortable. I know for a fact they would not entertain any change in our indemnity.

O'Dell: If it's that important, would they pay more for it through the fee split?

Badou: They have suggested that they would be prepared to pay a little bit more, maybe 5bps. But we've been with State Street for six years and I cannot imagine they will start to change the programme's structure, given its boutique nature, but anything is possible. We have some very good securities in our programme and have had very good incremental income. State Street is not going to bite their nose off to spite their face by upping the cost. A couple of years ago there were suggestions indemnification costs could rise but these never materialised.

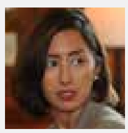
Kiely: I get more questions about indemnification than I get about collateral liquidity. It's odd because when I get into a car I ask if the brakes work before I ask if the insurance is up-to-date. Don't you want to know that the processes are right before you worry about the worst-case scenario?

You could just indemnify some trades. Is there a need to indemnify GC loans? And most insurance has an excess, and/or an insured amount and a cap – I can see that coming. Agent lenders have resisted changing an existing fee split, but certainly new clients could be offered two-tier pricing. We will pass on the business if it doesn't meet our return on capital calculation – Basel III changed everything.

Rouigueb: Indemnification can come in many forms but if clients go into an agency programme with a request for full indemnification it is going to cost them. The reality is that today's margins and balance sheet constraints do not allow agent lenders to be as flexible as they used to be.

Hutchings: Do we not think that haircuts do the same job as indemnification? If your haircut policy and collateral is well constructed, theoretically indemnification is not going to be required. You don't necessarily need indemnification, the collateral and haircut should be doing the job. Indemnification came about to give comfort to less engaged beneficial owners – the problem is that everybody had to

> "Clients are very cautious when it comes to regulators, even if they are technically right"
>
> **Donia Rouigueb, Caceis Investor Services**



jump on board and offer indemnification to be competitive.

Arnesen: There's a cost, and it may increase, so it should be priced correctly. Somebody will always offer a very high fee split with indemnification – we need to compete and I'll never be able to have this conversation with a sovereign wealth fund. But, if we absorb something, what are we trying to achieve? In theory we should never have another Lehman event but there could be a need to invoke it and it could be very expensive. My concern is that we're still pricing it as if the risk doesn't exist.

Agreements are not all-capturing – you could end up with cash at the last mark-to-market price. If they defaulted five, six or seven days ago you could still be out of pocket.

Chadwick: Consider what you're indemnifying against – in all probability the default of a systemically important bank. How prudent is it to hang your hat on indemnification provided by another systemically important bank? All bets would potentially be off in a major bank default scenario. Sophisticated clients say it's nice to have but not a deal breaker. Nobody should rely on it as their principal risk mitigant.

> SFTR reporting will come into effect in late 2018 and regulators will be looking hard to see if there are any issues, especially around the re-use of collateral
>
> **Mark Hutchings, Isla**

Smaller clients may not have the resources, bandwidth or engagement to do the due diligence on the other risk mitigants in a programme. They look at the risk involved and think: 'If my provider is a household name and they're indemnifying it, job done.'

O'Dell: The agents want to change the terms but many beneficial owners say they cannot or will not accept the changes, at least for now. Where will we end up?

Rouigueb: Clients understand the issue very well but it will come down to agent lenders to put in conditions as we are the ones with the constraints coming from above. For example, by not indemnifying 100% of the transactions. We have seen these kinds of metrics in RFPs, such as the type of collateral accepted or the geographic zone of the securities to which indemnification applies. It is always about equilibrium, and the client should be able to understand that.

Arnesen: Sometimes I hear people say that if we're indemnifying the client we should be able to pick the collateral. While this is a misnomer – because the client is always the principal right up until default – maybe there should be more conversations. If they insist on a certain fee split and indemnification the only way for us to generate revenue would be to insist on certain forms of collateral – but I've never done it that way before.

Rouigueb: That is what we are doing. When we run portfolio analysis for our new clients, we explain that if they want indemnification for a potential default we will not allow them to take very illiquid assets as collateral.

Arnesen: I've been reluctant to do that – we always talk about it being customised and it being their risk. I'm getting into a lot of discussions internally about pricing business. It's all leading to more transparency, even discussing with clients why they are priced differently. But how do you go to a fund and tell them they really need to take secondary index equity?

Chadwick: To be blunt, in most cases they would say 'No way'. They're generally not going to dial up the risk in pursuit of an arbitrary revenue target. We get occasional requests to take unusual collateral but given the bureaucracy and inertia associated with buy-side decision-making we'd need a fairly lumpy potential revenue number to justify it.

These conversations seldom take place in a vacuum – normally there is a broader relationship. If an agent lender pushed back the senior relationship manager would be running around fretting about losing the relationship.

O'Dell: How important is the collateral matrix for overall programme revenue?

Rouigueb: It is an important factor for programme performance. Af-

> Peer-to-peer may not disintermediate the agent lender – it might just reinvent them
>
> **John Arnesen, BNP Paribas Securities Services**

ter Esma came up with a collateral framework in 2012 people felt more comfortable enlarging their collateral matrix, up to a certain point. The other thing was the emergence of the liquidity management, which is now a part of clients' revenues and is based on clients' collateral matrix optimisation.

Kiely: I inform Ucits clients, which are regulated by Esma, that their collateral constraints make their assets appear less attractive. I am honest – there's no point telling them they could make X but find at the end of the year 1 they've only made Y because of restricted collateral. Outside of Ucits, collateral guidelines have widened. Over the last few years we have seen an increased use of equities and ETFs are now coming into the mix.

Chadwick: The critical thing is the experience of 2008/09. People lending fixed income securities in some cases accepted structured credit products as collateral, thinking it would be well-correlated with the underlying loaned assets. However, during the crisis the secondary market for even supposedly liquid investment grade credit products fell off a cliff. Equities may not be so well correlated but they trade on an exchange and data can help set prudent haircuts and collateral concentration limits.

Badou: Over six years our collateral matrix has changed, but ever so slightly. We've gone into FTSE250 equity DBVs and we're now potentially looking at taking equity indices as collateral.

O'Dell: Is anyone still concerned about a collateral shortage?

Arnesen: Let's hope a squeeze happens as most of what we do is GC. I need to find homes for large swathes of GC equity. There isn't a single equity market that reaches double-digit utilisation. I don't know if collateralisation will make it move. Low utilisation is a function of risk profiles and €16trn of supply in the market, the highest ever level in a market where demand has halved since 2009.

Kiely: There's a cumulative effect as more products are requiring collateralisation with cash or high-quality liquid assets (HQLA), so there is going to be a bit of a squeeze. Will there be a collateral cliff? No. Will there be a squeeze? Probably yes, but not severe.

A shortage would affect supply. For years we've been used to broker-dealers optimising through tri-party, but this is moving to the buy side. I don't want my buy-side clients using assets that have intrinsic value, to collateralise for example FX forward positions.

Chadwick: That's certainly part of our expanding role within Aviva Investors. Effectively, we're a centralised collateral inventory warehouse. A lot of derivatives collateral still takes the form of cash but there will be greater pressure to mobilise alternative eligible assets such as government bonds. We make sure that we don't deliver securities that've got intrinsic value.

Hutchings: In our latest Securities Lending Market Report the one thing that's quite clear is the changeover in demand over the last few years, particularly towards HQLA and, more importantly, the amount out on loan for over three months.

Arnesen: Our weighted average maturity (WAM) is certainly beyond 35 days. The WAM is within the annex of the agreement. Clients take comfort from the fact that we have a portfolio large enough to maintain their liquidity. I've always found the real selling point is in accepting primary index equity as collateral, which we indemnify.

O'Dell: Is the liquidity of collateral important?

Kiely: All the time – it can be more important than credit. In 2008/09, even if you were collateralised at 200% with AAA-rated MBS or ABS you could still have been underwater.

Chadwick: It goes back to the historical perception of good collateral. In a default there's only two things you can do, sell it or keep it. One business within our firm looks at bespoke transactions involving illiquid collateral such as structured credit and social housing loans. There's no liquid secondary market for this stuff at the best of times. You have to scientifically analyse whether it's a good replacement asset. If you take a big enough haircut and know it's going to mature at par in five years, will the cash flow meet the client's liability profile? It's a very different set of risk assumptions and risk models.

Kiely: Do clients have the ability, capability and desire to look at that? Most perform limited credit analytics. Credit agencies put signs on bits of collateral – but clients must trust the agency and hang their hat on that. I'm surprised people still do.

Mutual

Don D'Eramo, Head of Securities Lending at RBC I&TS, says discussing your goals and constraints with your agent lender is the best way manage a programme

WHAT ARE THE KEY REGULATORY CONCERNS AT THE MOMENT?

Don D'Eramo: I always look at it through the lens of the client. While we embrace regulatory change as it makes the industry stronger, which benefits everyone, there are definitely impacts to activities that are discretionary for beneficial owners. We really keep an eye on regulatory caps and ratios, such as liquidity coverage ratio (LCR), net stable funding ratio (NSFR), and Securities Financing Transactions Regulation (SFTR).

The capital ratios manifest in changing demand. The growth of fixed income over the past few years is directly correlated to demand for high quality liquid assets (HQLA) and collateral transformation, whether for new margining requirements or capital improvement. We definitely see growth in demand for term, where possible HQLA for term, and obviously growth in borrowing fixed income on term versus equities.

The SFTR draft technical standards are now finalised and beneficial owners will clearly look to their agents to manage these for them in a very transparent way.

The overarching consideration is how onerous a regulation has become – what are the costs and how do they manifest themselves within the business? The fear is that a regulation impacts costs and therefore potentially market liquidity.

SHOULD BENEFICIAL OWNERS BE CONCERNED ABOUT SFTR?

D'Eramo: Clarification on SFTR, in terms of how and what you report, will soon appear. The timing for when an entity must comply ranges between October 2018 and possibly mid-2019. Agent lenders have to consider how we allocate collateral as well, because variables such as timestamping become important. But the challenges are not insurmountable. The current agent lender disclosure (ALD) model needs to be enhanced to work with financial transaction reporting, as ALD is based on the settlement date and SFTR the trade date.

HOW IS REGULATION AFFECTING SUPPLY AND DEMAND?

D'Eramo: NSFR definitely contributes to the trend of providing borrowers regulatory solutions. We could potentially term HQLA assets further out, as opposed to the current relatively close one to six-month durations. Sometimes regulations, with good intentions, have contradicting consequences. In Europe capital regulations are pushing demand for term loans but Ucits regulations don't permit the supply, so they are not able to take advantage.

ARE THERE DIFFERENCES BETWEEN HOW AGENT LENDERS HANDLE THESE REGULATORY CHALLENGES?

D'Eramo: If an underlying beneficial owner is bound by a certain

benefits

regulation – whether it's the national instrument, such as the Ucits Directive or 81-102 for Canadian mutual funds – I don't believe there would be varying solutions. I'm also the president of the Canadian Securities Lending Association and we are engaging with regulators to look at changes that would open up demand for Canadian mutual funds.

But there're other ways agents can have varying solutions. In Europe we're seeing an interesting discussion around title transfer and the pledging of collateral. Potentially there will be a paradigm where the margin may be in a pledge format versus a loan in title transfer, which alleviates certain capital constraints from a counterparty perspective.

At RBC I&TS we like to engage with our counterparties and beneficial owners to understand how we can evolve our product. We've done that for pledge – we're at the forefront of that structure and at the forefront of trying to provide demand opportunities in a more opportunistic paradigm to our custodial clients, offering them transactional opportunistic value when it arises.

HOW CAN BENEFICIAL OWNERS INCREASE THE ATTRACTIVENESS OF THEIR PORTFOLIOS AMID SO MUCH SUPPLY?

> **D'Eramo:** There's something like $24trn lendable and roughly $2.9trn on-loan, so supply has definitely increased. But demand also continues to evolve.

One bucket is term and regulation-driven demand. There is continued growth in optionality, and where there're sub-optimal allocations we can step in and optimise that for clients through collateral transformation. Equities are probably the fastest growing collateral asset class we've seen over the past couple of years; almost 50% of the $2.9trn is collateralised with non-cash and it continues to grow.

The key tenet of the RBC I&TS lending programme is to identify demand opportunities and marry them to the client's collateral constraints. We identify the objective of the client and structure their lending programme accordingly. We propose collateral profile changes required to capture demand trends. Not all clients want to follow these proposals, and some clients may not be able to due to regulatory constraints, but it's important to play a leading role. Today a lot of clients opt for a very intrinsic value, opportunistic or min-

"The key tenet of the RBC I&TS lending programme is to identify demand opportunities and marry them to the client's collateral constraints"

imum-spread mandate as opposed to a full-scope programme.

ARE CLIENTS WILLING TO PAY MORE FOR INDEMNIFICATION OR ACCEPT LESS OF IT IN CERTAIN AREAS?

D'Eramo: We have a set, very rigorous risk culture around what and how we indemnify. We've been very economical in our revenue sharing structures, whether indemnified or non-indemnified. The last thing we want to do is re-price clients – it's really about ensuring they understand what the indemnification means and the reason why it's being offered.

For example, consider indemnifying government bonds versus government bonds – the value of an indemnity where the loans are potentially perfectly correlated with the collateral is very different from where you take the full breadth of collateral.

Not having indemnification doesn't work for everyone – but that's not to say it has to. It just starts the more interesting discussion around what the client wants to achieve. Some are very happy with just an opportunistic approach, with low balances and high returns. Others may be more revenue-focussed and understand an indemnified programme with a broader collateral profile will achieve their goal.

ARE YOU INTERESTED IN USING CENTRALLY CLEARED MARKETS?

D'Eramo: MiFID II pushes the concept of best execution to the front and centre. Lending is obviously an over–the-counter (OTC) market, but cleared markets are something we are definitely focused on. We will ensure we meet MiFID requirements in the near future with a firm policy in place, which is relatively new to our business.

We are very close to the development of CCPs, or central counterparties. There will be a place for them within the industry – I'm surprised I still haven't had a plethora of requirements from our counterparties to move to a cleared construct – but that may be because the infrastructure still isn't where it needs to be. I believe that we will get there in certain markets or for certain transactions.

I'm not sure if we're on the verge of them being adopted, but there's more discussion. It is aligned with other changes such as the trend for term lending or using equities as collateral, and even new paradigms such as title transfer and pledge. There seems to be a lot more discussion and eagerness around those topics than CCPs. The sell side hasn't really been pushing. However, there will definitely be a requirement for CCPs at some point so we need to ensure we can move to the new paradigm when it comes.

What muddles this is the infrastructure. In the US lending market, the largest, CCPs are not really a true industry construct yet. There is some dealer-dealer clearing but there really isn't anything for agents. Europe is obviously further down the road but even there our counterparties aren't resolutely asking to use them.

> We like to engage with our counterparties and beneficial owners to understand how we can evolve our product

HOW CAN BENEFICIAL OWNERS BENCHMARK THEIR AGENTS TO MAKE SURE THEY ARE SECURING THE BEST POSSIBLE REVENUE?

D'Eramo: There's definitely increased engagement with beneficial owners across the board. The top quartile beneficial owners – ones that have multiple agents or real economic size and sophistication – increasingly have direct relationships with benchmarking facilities, which we encourage. We use all the benchmarking data providers and make them available to our clients.

We don't really look at the benchmarking data with our clients, comparing A to B, it's about having a richer discussion about why their current performance may be under or over potential benchmarks, which begets discussion about their collateral profiles or trends in the market.

For beneficial owners the value of data is in pricing a special or warm security – there's enough data out there to do that efficiently. But understanding and consequently tailoring their programme to meet those goals is how clients gain a holistic view. We ensure that it is transparent to their investment process, that they are not experiencing failed trades and receive reporting when and how they want it.

It's incumbent upon us to know the market and understand what's driving it. Benchmarking is a supporting tool that we use to enrich the discussion, to help open up new markets and identify opportunities for clients where they may historically have been apprehensive.

GLOBAL INVESTOR | ISF FOW

MAY / JUNE ■ **2017**

SUB-CUSTODY GUIDE 2017

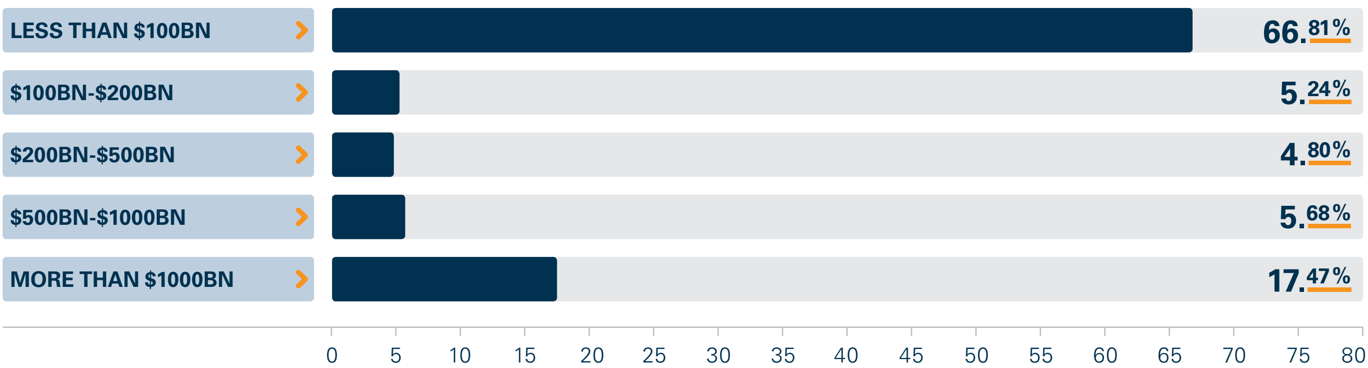
HANDBOOK OF MARKET TRENDS & SUB-CUSTODIAN PERFORMANCE IN EVERY MAJOR MARKET

Global Investor invited all entities that use the services of sub-custodians, from broker-dealers to global custodians, to rate their performance. Sub-custodians were rated across the twelve service categories, separately for each market.

The unweighted tables include simple averages of respondents' scores. The weighted tables take into consideration how important each service category is to the survey respondents and the assets under custody of the respondent rating the sub-custodian. The full methodology can be found at www.globalinvestorgroup.com.

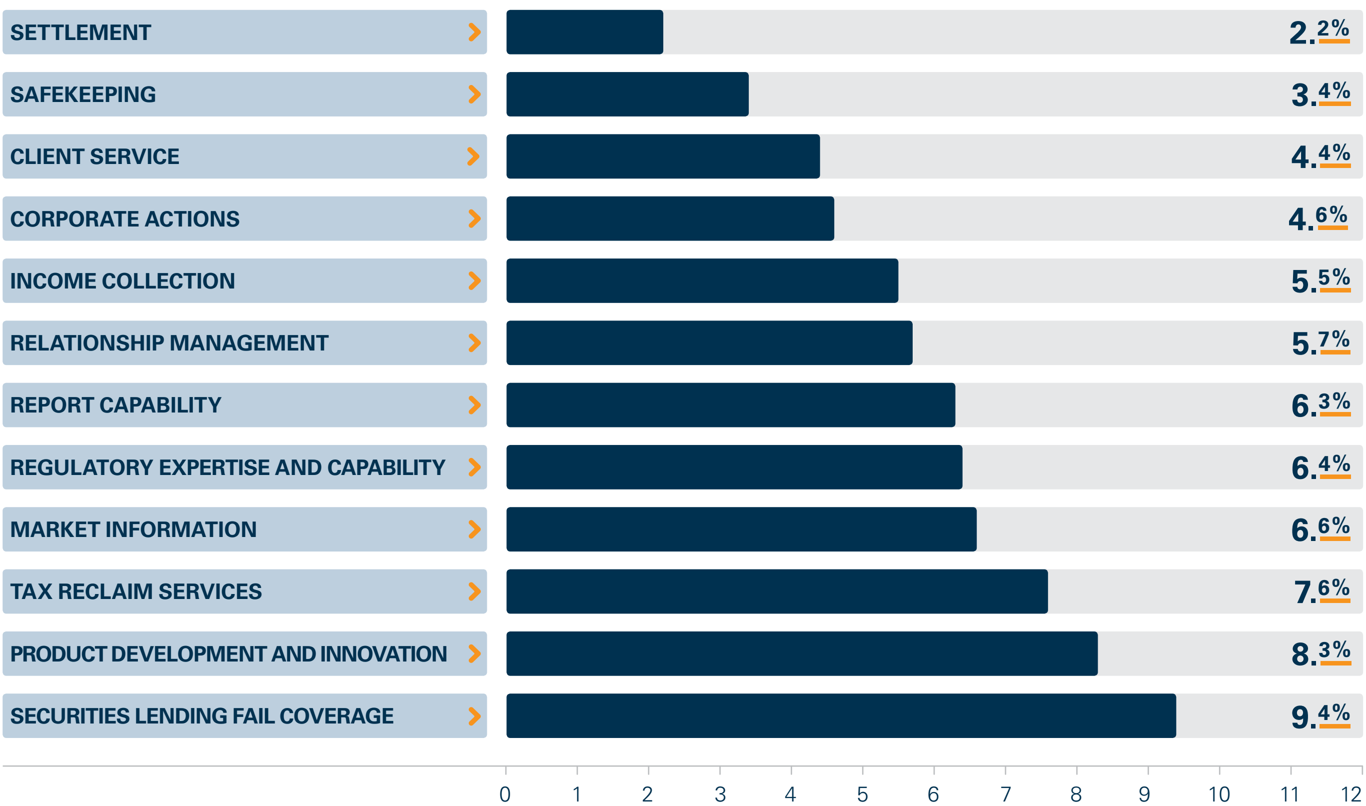
SURVEY RESPONDENTS

ASSETS UNDER CUSTODY (ALL MARKETS) | PROPORTION OF RESPONDENTS



IMPORTANCE OF SERVICE CATEGORIES

AVERAGE RANKING (1 MOST IMPORTANT)



SUB-CUSTODY GUIDE

AMERICAS

ARGENTINA

UNWEIGHTED		
RANK		Score
1	Citi	5.00

WEIGHTED		
RANK		Score
1	Citi	5.80

MSCI will announce whether it will reclassify the MSCI Argentina Index from frontier to emerging market status in June 2017. It was excluded from emerging status in May 2009 as a result of continued restrictions to inflows and outflows of capital in the equity market. MSCI considered only American Depositary Receipts (ADRs) of Argentinean companies as eligible securities for inclusion in the MSCI Argentina Index.

"An external vote of confidence in Argentina's reform efforts would help. A potential MSCI upgrade of the Argentine equity market from frontier to emerging market status could attract meaningful foreign flows to the local equity market," Guilherme Paiva, Morgan Stanley's chief equity strategist for Latin America Paiva wrote in recent client note.

The Macri administration has introduced a bill that reforms the existing capital markets law, including provisions on limiting government intervention in capital markets and reforming taxes. Rapid approval and implementation by congress could bolster foreign investor confidence.

"Eight years after being downgraded Argentina seems poised for a turnaround, one that offers investors long-term opportunity and returns," Fernando Sedano, Morgan Stanley's Latin America economist, added.

"Now that the administration has addressed many macro imbalances, Morgan Stanley economists believe the focus should shift toward longer-term structural challenges. We are confident that Argentina will push reforms to boost its capital market infrastructure in order to absorb foreign capital and ultimately attract more foreign direct investment."

Argentina's stock market capitalisation is still relatively small. Capitalisation of $61bn (just 11% of 2016 GDP of $538bn) means it is the second smallest equity market among emerging markets, just above Egypt. "We see ample potential for new issuance, especially in financial and consumer stocks," Paiva added. "We believe overall market capitalisation in Argentina can more than double over the next five years, if we consider new listings and price gains."

BERMUDA

UNWEIGHTED		
RANK		Score
1	HSBC	5.00

WEIGHTED		
RANK		Score
1	HSBC	4.66

In recent months, challenges facing Bermuda have been amplified by ongoing changes in the international landscape with Brexit negotiations recently activated, proposed reforms in the US tax system that could affect Bermuda, OECD initiatives and European Union tax policy initiatives targeted against so-called low/no income tax jurisdictions.Bermuda's Financial Policy Council has stated that it recognises the importance attached by the European Union to clamping down on tax evasion and avoidance and promoting fairer taxation. However, Bermuda believes that its regulatory and tax systems meet relevant international criteria,

> "We are confident that Argentina will push reforms to boost its capital market infrastructure"
> **Fernando Sedano, Morgan Stanley**

especially with regard to transparency and the exchange of information, harmful business taxation and, most recently, the fundamental principles underpinning the OECD's 15 Actions on Base Erosion and Profit Shifting. .

› BRAZIL

UNWEIGHTED		
RANK		Score
1	BNP Paribas Securities Services	5.74
2	Citi	5.40

WEIGHTED		
RANK		Score
1	Citi	6.98
2	BNP Paribas Securities Services	5.04

The combination of stock exchange BM&FBovespa and Cetip, the largest depository for private sector debt securities in Latin America, led to the creation of B3 earlier this year. Together they should bring benefits to market participants from synergies of scale and range of products.

B3 offers the market is greater capital efficiency for clients through the possibility of using, for example, OTC and exchange-traded derivatives with the same central counterparty. Regulatory costs should also be lowered.

Executives at B3 also believe the integration of activities will increase revenue diversification, which will allow custodians, registrars, asset managers and brokerage houses to consolidate their back office and treasury systems, with reductions to operating costs and risk for the entire financial system, as well as more efficiency interact with regulators.

Three-quarters of Brazilian assets under custody are in the hands of Itaú Unibanco Holding SA, Bradesco, Banco do Brasil and Citi. In October, Citi reached a definitive agreement to sell its consumer banking business in Brazil to Itaú Unibanco. Bradesco purchased of HSBC's local unit last year. Meanwhile, BNP Paribas Securities Services is one of the more recent entrants.

The economy is expected to emerge from a two-year recession in 2017, as private investment and production improve, although consumption will be subdued by high unemployment. The recovery is heavily dependent on the government's ability to pass reforms, reduce fiscal imbalances and restore confidence.

The MSCI Brazil dropped 15% in US dollar terms on May 18 after President Temer was implicated in a corruption scandal. The news reversed the market gains over the past year as a result of government reforms.

"Any news that compromises his [Tenner's] position will be used by other political parties to withdraw support for these unpopular reforms or even initiate another impeachment process," said Ivo Luiten, senior portfolio manager at NN Investment Partners.

"If there are no reforms, there is more downside to both the domestic stock market and the currency. How much more is hard to tell because it depends to a large extent on how future politics will evolve."

Commodity prices have been recovering over the past year and Brazilian corporate earnings were rising for the first time since 2011, which should give support to the market.

CANADA

UNWEIGHTED		
RANK		Score
1	RBC Investor and Treasury Services	5.76
2	CIBC Mellon	5.56

WEIGHTED		
RANK		Score
1	RBC Investor and Treasury Services	5.26
2	CIBC Mellon	5.19

Canada's market remains attractive to global investors with its AAA-rating, strong economy, natural resources and highly skilled workforce. It offers robust market infrastructure, a stable financial sector and an effective regulatory environment.

Canadian market participants are working to meet the same September 5 2017 deadline for shortening the settlement cycle from T+3 to T+2 as the US. In April, the Canadian Capital Markets Association (CCMA) issued a request for comments from investment industry stakeholders on a list of Canadian security types, identifying whether they are expected to be affected by T+2.

"Dozens of countries around the world have reduced their securities settlement cycle to a standard of T+2," said Keith Evans, executive director of the CCMA. "Making this change seamlessly and in tandem with the US is essential to maintaining Canada's capital markets' reputation as efficient, cost-effective and secure."

About 40% of trades on Canadian exchanges are in inter-listed securities (a single security listed in both markets) and about a quarter of the trades settling in Canada are from cross-border transactions. Evans added: "Different settlement dates may lead to market distortions, be confusing for investors and increase both the risk of errors and the need for manual corrections."

James Rausch, head of Canadian client coverage and global head of banks, brokers & exchanges, RBC I&TS, added: "The new settlement cycle also impacts our Non-Western Hemisphere clients. With this in mind, we are proactively identifying trade instructions received after 12:00 noon on T+1 and encouraging clients to work with their underlying clients and internal partners to make the adjustments to ensure the timely provision of trade instructions in line with expected industry standards."

The Canada Revenue Agency (CRA) made modifications to its guidance for Part XVIII of the Foreign Account Tax Compliance Act (Fatca) and new guidance for Part XIX of the Common Reporting Standard (CRS) in March 2017.

Shane Kuros, vice president, business development and relationship management, CIBC Mellon, said: "The CRA indicated that the information – aimed at Canadian financial institutions and their account holders – is intended to provide an understanding of the administrative aspects of the Canada-US intergovernmental agreement and the CRS."

Rausch added: "Account opening requirements for new accounts in phased-in jurisdictions under CRS begin July 1 2017. In an effort to streamline due diligence processes, we are developing a combined Fatca and CRS self-certification form, including Canadian withholding tax declaration information for our sub-custody clients."

CHILE

UNWEIGHTED		
RANK		Score
1	Citi	5.15

WEIGHTED		
RANK		Score
1	Citi	5.93

Growth in 2017 is expected to be 1.7% according to the IMF, only slightly up from 1.6% in 2016, reflecting disruptions to copper production, dampened consumption and investment as well as political uncertainty, with both presidential and congressional elections in the next 12 months.

An export-led recovery is expected to gain traction in late 2017 and strengthen in 2018. Monetary policy is accommodative, but there is scope for further easing. Fiscal consolidation needs to continue given the growth outlook.

Law N° 20.848, in force since January 1 2016, established a new institutional framework for foreign direct investment. The aim is to transition from a "passive reception" policy to an "active attraction". Fortunately, copper prices seem to have bottomed out in this cycle with price increases in late 2016 helping to restore confidence.

In May 2017, Santiago Stock Exchange (SSE), Bolsa de Comercio, announced that an IBM-designed platform will be implemented within the exchange's short selling system.

"The solution creates a securities lending chain repository for a key master contract between institutions, exchange and banks," an IBM spokesperson told Global Investor. "All entities involved in securities lending – banks, the stock exchange, clients, regulators and brokerages – can exchange information in a highly secure manner, assuring financial transparency and increasing the process end to end efficiency."

When a broker and institutional client sign a master agreement to engage in lending activity, the broker enters the details and signs off on a blockchain for audit purposes. Upon

> "The SBL blockchain solution could help SSE cut its back-office processing time by 40%"

successful execution of the order, the platform will register the lending contract on the blockchain on behalf of brokerage. A smart contract will be executed to the short for an allowed security.

SSE will own and operate the network but anyone with the key can access the information, which includes the master agreement, secure lending contracts and contracts with banks. The SBL blockchain solution could help SSE cut its back-office processing time by 40%.

COLOMBIA

UNWEIGHTED		
RANK		Score
1	BNP Paribas Securities Services	6.25
2	Citi	5.09

WEIGHTED		
RANK		Score
1	BNP Paribas Securities Services	6.84
2	Citi	6.34

2016 brought improvements for foreign investment and preparation for some of the biggest projects that the Colombian market will experience during this decade.

In the recent years Colombia has been experienced political change, including a peace agreement with Farc in December 2016, as well as economic reforms.

Fiscal reform in late 2016 brought significant change to post-trade processes and foreign portfolio investments. FX transactions related to funds repatriation deriving from foreign portfolio investments were exempted from the 40bps transaction tax (GMF), facilitating the use of multiple FX providers.

A new tax on dividends of 5% was introduced, to apply to profits obtained from 2017, and the value-added sales tax increased from 16% to 19%.

Armanda Mago, managing director, head of direct custody and clearing, Latin America excluding Brazil and Mexico, Citi, said: "The government expects to reduce the fiscal deficit – mostly driven by the decrease in oil prices – to attend the IMF recommendations and remain investment grade with a stable outlook."

While Colombia continues being a segregated market for securities accounts, regulatory change means omnibus cash accounts are now available for foreign portfolio investors.

"The use of omnibus cash accounts has been finally recognised in the market and the final version of the new foreign investment regime took shape," said Claudia Calderon, head of Colombia, BNP Paribas Securities Services. "This benefits those entities offering services to multiple investors, such as global custodians, that can set different cash structures according to their needs, having the possibility to use multiple providers."

The Superintendence of Finance is working on a new regulation to establish higher capital requirement for trust entities in order to adequately support the custody business.

During 2017 the market will be working on important projects such as an extension of the CCP model to equities, a move to a T+2, implementing an integrated trading platform for the securities exchange and a new platform for the CSD, Deceval.

Mago added that the stock exchange, the CSDs, local brokers and custodians including Citi are working to promote the participation of foreign portfolio investors in securities lending and implement a CCP for equities spot transactions, sell buy backs and repos.

MEXICO

UNWEIGHTED		
RANK		Score
1	Santander	5.22
2	Citi	5.21

WEIGHTED		
RANK		Score
1	Citi	6.27
2	Santander	5.95

Mexico's economic priority is to maintain macroeconomic stability and market confidence amid heightened US-related uncertainty, accord-

> At times, US-Mexico bilateral relations might fuel volatile market-moving events
> **Scotiabank**

ing to an IMF report in April.

Mexico remains the pre-eminent jurisdiction in Latin American debt markets with large-scale foreign portfolio investor participation, Scotiabank executives wrote in their April outlook. Monetary policy is critical in keeping the interest rate premium as a key magnet for inflows.

"There is evidence of a divergent trend in monetary policy dynamics between the North (USA and Mexico) and the South (Brazil, Colombia and Chile)," Scotiabank added. "The stark contrast between rising central bank rates in Mexico—which helped stabilise Mexican currency market stress—and steady rate declines in Brazil is proof of this divide."

Mexico's capital markets remain uneven, with a very liquid government bond market but shallow corporate debt and equity markets. Government bond markets are deep and well-diversified in terms of range of instruments and maturities, providing liquidity in all relevant benchmarks. The strong presence of foreigners has supported the yield curve lengthening and secondary market liquidity. However, corporate equity and bond markets are still not a reliable source of long-term financing as they are small, expensive and illiquid.

"Equity markets amount to only 38% of GDP, are less dynamic than in peer countries and are tilted towards large enterprises and family owned corporations," the IMF added. "The development of hybrid capital markets instruments, via private equity funds, could provide a promising venue for much needed mature infrastructure investments. There is significant scope to broaden existing debt instruments to include infrastructure debt funds, covered bonds, and standardised securitisation bonds to appeal to a larger range of private sector investors."

Scotiabank noted that a June 4 2017 election will provide a clear hint of sentiment ahead of the July 2018 presidential vote. "At times, US-Mexico bilateral relations might fuel volatile market-moving events," added Scotiabank.

PERU

UNWEIGHTED

RANK		Score
1	Citi	5.12

WEIGHTED

RANK		Score
1	Citi	6.28

The Peruvian securities market has grown and become more sophisticated in recent years but the latest International Capital Markets Review suggests it is still a highly concentrated market where institutional investors and big businesses are essentially the only participants.

"The Peruvian securities market is not yet perceived by local individuals and small and medium-sized companies as a real alternative providing accessible investment and financing opportunities," wrote Nydia Guevara and Alvaro Del Valle from Peruvian law firm Miranda & Amado.

To attract a higher number of issuers and potential investors Peru's Superintendency of Capital Markets (SMV), the Superintendency of Banks, Insurance Companies and Private Pension Fund Managers (SBS) and the Lima Stock Exchange (BVL) need to simplifying access requirements, according to Guevara and Del Valle. "[This] in turn should lower the costs involved in the participation of new actors in the securities market. This goal has not yet been achieved."

However, both lawyers expect that the reforms and incentives approved during 2015 and 2016 – aimed at increasing the number of securities listings, improving the number of participants in the market and attracting investors by reinforcing transparency – will fuel securities markets expansion and integration.

"2015 and the first half of 2016 were particularly slow periods because of the uncertainty surrounding the presidential and congressional elections held between April and June 2016. Mr Kuczynski, who has a pro-investment and pro-market policy, was sworn in as the president for a five-year term on July 28 2016, along with a new congress, which should have a very positive impact on the economy and development of the local capital market."

UNITED STATES

UNWEIGHTED		
RANK		Score
1	Brown Brothers Harriman	6.50
2	BNP Paribas Securities Services	5.93

WEIGHTED		
RANK		Score
1	Brown Brothers Harriman	7.37
2	BNP Paribas Securities Services	3.99

[pullquote] ""

The Depository Trust & Clearing Corporation (DTCC), alongside other association partners, has committed to helping the US market follow Europe in moving from a T+3 settlement cycle to T+2. The move, which is scheduled to happen in September 2017, is seen by many as a precursor to eventually moving to T+1 globally.

The European switch took place in 2014 and has largely been judged as a success in the buy side. The level of industry preparation means market participants are hopeful of replicating this in the US.

Law firm Deloitte noted T+2 will require changes across the entire corporate actions lifecycle, from announcements to booking and reconciliation. "Under T+2, existing processes that are paper-based, error-prone, and highly manual will have one less day to be completed – increasing the risk of failure. In preparing for T+2, organisations will need to ensure their internal data is up to par," Deloitte's Bob Walley, a New York-based principal focused on regulation and capital markets, wrote in a recent note to clients.

Deloitte's experts have also suggested vendors and service bureaus assess their delivery systems and incorporate T+2 information into event announcements, such as shortened periods for expiration dates and cover/protect dates. Eligible positions will need to be established based on ex-dates for mandatory and income corporate actions that are one day earlier under T+2.

Cover/protect date calculations for voluntary corporate actions will need to be shortened for T+2 settlement, and organisations will need to notify customers of the shortened date period. Ex-date calculations need to be shortened to "record date minus one," and calculations for "take-off sheet" adjustments and dividend reinvestment need to be adjusted for T+2.

Systems and operations that support dividend reinvestment processes also need to be reviewed and adjusted. Failure to process these payments for T+2 could create financial risks, including the direct cost of late payments in forgone interest for investors. Finally, firms should review position booking systems for coding related to settlement date and then make adjustments for T+2.

A recent study by Aite Group suggested fund managers are hesitant over a move to T+1 because of the potentially high cost of the required move from batch overnight cycles to real-time processes for settlement.

> "Under T+2, existing processes that are paper-based, error-prone, and highly manual will have one less day to be completed"
>
> **Bob Walley, Deloitte**

URUGUAY

UNWEIGHTED		
RANK		Score
1	Banco Itau	4.84

WEIGHTED		
RANK		Score
1	Banco Itau	5.86

Uruguay has managed the recessions of its large neighbours Brazil and Argentina relatively well. The economic slowdown in Uruguay bottomed out in 2016, with growth picking up in the second half of the year. Inflation has decreased toward the upper bound of the central bank's target range. Given rising debt and still-elevated inflation, the room for countercyclical fiscal or monetary policy is limited. "The fiscal consolidation package for 2017 is a crucial step for putting net debt on a downward trajectory, while tight monetary conditions are needed to keep supporting continued disinflation," IMF officials noted in a recent report.

VENEZUELA

UNWEIGHTED		
RANK		Score
1	Citi	4.50

WEIGHTED		
RANK		Score
1	Citi	6.06

Venezuela is one of the countries most affected by the drop in oil prices. The South American country was already battling economic difficulties when a barrel was above $100. So now, barrels around $50, the socialist revolution of its late leader, Hugo Chavez, and president Nicolas Maduro is facing an acute funding crisis. IMF officials have noted that projecting the economic outlook in Venezuela – including assessing past and current economic developments as the basis for those projections – is complicated. There is a lack of discussions with the authorities, long intervals in receiving data that has information gaps, incomplete provision of information and difficulties in interpreting certain reported economic indicators in line with economic developments.

ASIA PACIFIC

AUSTRALIA

UNWEIGHTED

RANK		Score
1	BNP Paribas Securities Services	6.21
2	HSBC	5.33

WEIGHTED

RANK		Score
1	HSBC	6.59
2	BNP Paribas Securities Services	4.66

The ASX is continuing its project to replace its existing Chess platform, which has serviced cash equities in Australia since 1994. The assessment of distributed ledger technology (DLT) is being undertaken by the ASX with Digital Asset Holdings. ASX expects to be in a position to make a decision on the technology and vendor towards the end of 2017.

"The current focus for the ASX and the market participants is being directed to the business requirements for the system, irrespective of the underlying technology," said David Braga, head of securities services Australia and New Zealand, BNP Paribas. "Moreover, the ASX acknowledged that the existing Chess proprietary messages are not compatible with other international systems and standards."

ASX will replace the current proprietary format with ISO20022 standard and has contracted Swift. This work will feed requirements for the Chess replacement solution but is re-usable to any system – the specifications are technology-agnostic.

Peter Snodgrass, head of direct custody and clearing HSBC Australia, said: "The ASX stated that the investments in technology will help deliver greater innovation, efficiency and liquidity to customers. The initial six to twelve months will be used to develop a solution that demonstrates the benefits of DLT, while Chess will continue as normal alongside. This allows stakeholders to assess the benefits and implications before a final decision is made."

The Council of Financial Regulators (COFR) issued a Consultation Paper on Safe & Effective Competition in Cash Equities Settlement in Australia. The COFR seeks to ensure ASX remains responsive to user needs, and maintains transparent and non-discriminatory pricing of its monopoly cash equity clearing and settlement.

The Australian Securities Exchange (ASX) is looking into adopting pre-matching for debt securities. An automated process would decrease failed trades by enhancing the ability of clients to resolve unmatched trades before settlement date. "This step will provide a significant benefit to the cross border investment community," added Snodgrass.

The Australian Government enacted the new Attribution Managed Investment Trust (AMIT) legislation on 5 May 2016, with the aim of provide qualifying MITs with greater tax treatment certainty. The new regime has been mandatory since July 1 2016. Under the international Common Reporting Standards (CRS), Australian banks and other financial institutions will collect and report to the Australian Taxation Office (ATO) financial account information of their non-resident customers, and shares it with other participating authorities. This comes into effect in Australia from July 1 2017.

Stock exchange and derivatives market operator Chi-X is to launch Transferable Custody Receipts (TraCRs), which are intended to provide beneficial holders with the beneficial ownership of shares in leading global companies on the world's largest markets. Initially, the underlying securities will be US tradeable securities on the NASDAQ and the NYSE (S&P500). TraCRs issuers are separate entities to the company issuing the underlying assets. The TraCRs will trade on Chi-X at a set ratio to the underlying security, cleared and settled via ASX Settlement.

Australia moved to a T+2 settlement cycle, from T+3, for both cash equities and debt securities in March 2016. "It was the biggest change or challenge facing HSBC Australia and its clients in the last year," said Snodgrass.

> "The current focus for the ASX and the market participants is being directed to the business requirements for the system"
>
> **David Braga, BNP Paribas**

BANGLADESH

UNWEIGHTED

RANK		Score
1	Standard Chartered	4.57

WEIGHTED

RANK		Score
1	Standard Chartered	5.83

The Bangladeshi economy is dominated by a single industry, garment making, which makes up more than 70% of total exports. Business is once again booming, having recovered enough from the 2013 factory-collapse disaster to fuel 7% growth this year. $81m was taken from the Bangladesh central bank account at the Federal Reserve Bank of New York in 2016. The theft was linked to malware, which the FBI has alleged was developed by North Korea, and local lapses in security around Swift messaging passwords. The World Bank has been in talks with the government on financial reforms for several years but the country is reported reluctant to take the multinational lender's development policy credit to support reform.

CHINA

UNWEIGHTED

RANK		Score
1	HSBC	5.51
2	Deutsche Bank AG	5.43
3	Standard Chartered	5.08
4	Industrial and Commercial Bank of China	4.46
5	China Construction Bank	4.06

WEIGHTED

RANK		Score
1	Deutsche Bank AG	7.51
2	HSBC	6.72
3	China Construction Bank	5.54
4	Standard Chartered	5.52
5	Industrial and Commercial Bank of China	5.27

China's capital markets have progressed rapidly in recent years. Achievements include the opening of the Chinese Interbank Bond Market (CIBM) to a wide range of international investors in early 2016, the introduction of registration systems for the Qualified Foreign Institutional Investor (QFII) and RMB QFII (RQFII) programmes and the Stock Connect scheme. In 2017 market developments have centred largely on broadening access for foreign investors into China's Interbank bond market (CIBM) with the PBOC delivering on its commitment to liberalise access for international investors.

"With the inclusion of CIBM's bonds in global indices as a core objective, the PBOC and SAFE have led several key developments, most notably allowing foreign participation in the CNY (onshore) FX derivatives markets for the purposes of hedging. This is a key requirement for global insurance companies in particular and is part of a continuing programme of reform which we expect to see continue through 2017," said a spokesperson for Standard Chartered Bank, adding these reforms could potentially include the simplification of market entry documentation, extended trading hours and tax clarifications for QFII investors.

However, several reforms need to occur if China's capital and financial markets are to reach their full potential. The Asia Securities Industry and Financial Markets Association (Asifma) published a detailed study in March, China's Capital Markets: Navigating the Road Ahead.

Adopting global standards on trading suspensions, stock borrowing and lending, short selling, delisting of substandard companies and trading suspensions, and settlement of securities are among the recommendations proposed by Asifma in order to attract foreign investment in equities. The continued development of a liquid secondary bond market is needed to transition away from the majority of issues being held to maturity on banks' balance sheets.

Asifma also says China's capital markets would benefit from greater transparency and consistency in policy and regulation, which would improve international investor confidence. There is also a need to implement a resolution and recovery regime for financial institutions consistent with international standards.

Meanwhile, in order to minimise the risks for entities clearing on the Shanghai Clearing House (SHCH) there is a need to incorporate the enforceability of close-out netting in statute, support the exchange of margin through amendments to the Securities Law and allow for third-party custodians to hold initial margin on behalf of the posting counterparty. Asifma suggests the authorities, in conjunction with the SHCH, should prioritise the application of the SHCH to be recognised as an equivalent clearing house under European and US legislation.

"We believe facilitating access to China's capital markets by permitting international investors to use omnibus accounts would be welcomed by international players as it would allow them to benefit from cost savings and efficiencies through simplification of operating models," Asifma stated. "While China's priority is to develop its own market infrastructure, it is important to ensure that it is compatible with international standards if China is to expand the use of the RMB as an international currency."

HONG KONG

UNWEIGHTED

RANK		Score
1	BNP Paribas Securities Services	5.96
2	HSBC	5.82
3	Standard Chartered	4.92

WEIGHTED

RANK		Score
1	HSBC	6.24
2	Standard Chartered	5.22
3	BNP Paribas Securities Services	4.67

2017 has been an active year with key initiatives including the imminent launch of Bond Connect scheme as well as developments around real-time delivery versus payment (DVP) for China Connect, holiday trading, ETF Connect and Primary/IPO connect.

The development of the Hong Kong – China Stock Connect has resulted in global players such as Standard Chartered partaking in bilateral discussions on the applications of Ucits V in a Hong Kong and China context, leading to the approval of the "market DVP" mechanism by the Luxembourg Financial Sector Supervisory Commission (CSSF).

Cindy Chen, managing director and head of securities services for Hong Kong at Citibank, described these changes as new challenges to foreign investors, such as operating in a T+0 environment and associated risks with a compulsory buy-in market, choosing a solution that would satisfy Ucits, AIFMD and '40 Act requirements and understanding all changes related to the various China market access channels.

"The enhanced connectivity and interaction between Mainland China and Hong Kong authorities and a more stable market environment provide a good platform to expand China market access to other asset classes," said Chen. This effectively creates opportunities for foreign investors to introduce new products and lower the frictional cost of accessing China's "increasingly open, yet complex market."

With the Hong Kong Exchange (HKEx) working actively to extend its capabilities, developments in 2017 have focused on two key areas: the finalisation of the Hong Kong – China Stock Connect and the launch of the Hong Kong – China Bond Connect.

On the Stock Connect, banks including Standard Chartered have continued discussions with European regulators to secure support for the existing settlement models for A-shares in Hong Kong. "This has involved extensive bilateral discussions on the applications of Ucits V in a Hong Kong and China context and has successfully led to the approval of the market DVP mechanism by the CSSF in Luxembourg as a major milestone," said a Standard Chartered spokesperson. "Global investors are now able to fulfil their need under Mifid to demonstrate best execution on the Stock Connect – which was previously not possible."

On the Bond Connect, he added: "We have been a partner to the HKEx in the evolution of the operating model and, as the model now takes shape with investors we will continue to play a key role in reconciling the needs of global managers with those of the HKEx and HKMA."

INDIA

UNWEIGHTED

RANK		Score
1	BNP Paribas Securities Services	6.20
2	Société Générale Securities Services	6.20
3	Citi	5.59
4	Deutsche Bank AG	5.51
5=	Standard Chartered	5.40
5=	HSBC	5.35

WEIGHTED

RANK		Score
1	Citi	7.75
2	Deutsche Bank AG	6.34
3	HSBC	6.26
4	BNP Paribas Securities Services	5.09
5=	Standard Chartered	4.45
5=	Société Générale Securities Services	3.89

India continues to be an important investment destination for foreign investors, both in terms of portfolio and strategic investments on the back of strong fundamentals and well-developed capital markets. Net foreign portfolio inflows into India crossed $10bn in 1Q 2017.

The debt segment has been a focus area for increased reforms. "Regulators have taken various steps to streamline this segment for FPIs [foreign portfolio investors] including flexibility to transact in corporate bonds without involving brokers, direct access to online trading platform for government securities trades in secondary markets and allowing investment in unlisted debt securities," said Anuj Rathi, head of HSBC Securities Services India.

> "Regulators have taken various steps to streamline the debt segment for FPIs"
> **Anuj Rathi, HSBC**

There were also some important developments in taxation. India signed protocols to amend existing tax treaties with Mauritius, Cyprus and Singapore which came into force from April 1 2017. Furthermore, the Budget has clarified that Cat I &II FPIs are exempted from provisions of indirect transfer tax.

Regarding market entry simplification, the PAN verification process for FPI account opening has been relaxed. FPIs are now permitted to provide PAN card copies within 60 days of account opening or before remitting funds outside India, whichever is earlier.

"We are now awaiting the roll-out of the common application form for FPI registration and PAN card as announced in the Budget. This is a really

positive step as it will not only simplify the overall process but will also reduce the time-lag for the FPIs to start trading in the market," added Rathi.

The Reserve Bank of India (RBI) has notified new Central KYC Records Registry (CKYCR) rules aimed at centralising information for bank accounts. Foreign portfolio investors that follow Sebi uniform KYC under KYC registration agency (KRA), will be especially impacted by the new rules. A spokesperson for Standard Chartered Bank said: "Custodians had extensively discussed this requirement and in particular with regard to FPIs with MOF/RBI/SEBI to use exiting information with KRA and only seek additional information from FPI."

Custodians, including Standard Chartered Bank, have been in discussions with Sebi, RBI and the Ministry of Finance to introduce single application form for FPIs which should cover FPI registration including KYC requirements, in order reduce documentation complexity and worked with Sebi, RBI and the depository NSDL to formalise the consolidated form.

Regulators are consulting on the relaxation of rules for foreign investment in Indian government securities. A spokesperson for Standard Chartered Bank said: "We are working with RBI and [clearing house] CCIL in offering the facility to foreign portfolio investors to access the execution platform for trading and subsequent settlement of GOI trades. We had provided feedback for the automation of NDS OM WEB system.

RBI, in consultation with CCIL, is setting up a mechanism to monitor investments limits on real time basis applicable for FPI investments in GOI securities. "This will do away with exiting auction-based mechanism where FPIs post 90% utilisation need to bid for the limits," added the spokesperson.

INDONESIA

UNWEIGHTED

RANK		Score
1	HSBC	5.72
2	Citi	5.33
3	Standard Chartered	4.84

WEIGHTED

RANK		Score
1	HSBC	6.97
2	Standard Chartered	5.77
3	Citi	4.92

President Joko Widodo (Jokowi) became president of Indonesia two-and-a-half years ago and is gaining the confidence of the market after reforming the country's fiscal budget, including big cuts to Indonesia's fuel subsidies, largely to finance the acceleration of infrastructure projects. Analysts at Lazard Asset Management note that there has also been a notable policy shift, with the government promoting a pro-business climate and an open door policy to foreign investors, which should ultimately improve the competitiveness of the country.

According to David Jauregui, senior vice president, product manager and Lazard Asset Management, since assuming the presidency, Jokowi has also begun reversing Indonesia's restrictive foreign investment policy to boost trade and competitiveness. "The government has been focused on satisfying the balance between domestic and foreign interests, attracting foreign companies where local expertise is lacking while protecting domestic small and medium enterprises," Jauregui noted.

Indonesia New Fund System (INFS) is an integrated system initiated by the Indonesia Financial Services Authority (OJK) and the local Indonesian CSD (KSEI) that provides a centralised platform for Indonesian investment fund-related participants.

"This initiative aims at digitising current paper/faxes/emails instructions, by implementing a standardized and automated channel for all Indonesia mutual fund market participants, including, but not limited to, custodian banks, selling agents or fund's distributors, and brokers," a spokesperson for Standard Chartered Bank said.

INFS is the first system in Asean to connect all mutual fund managers, and improves efficiency and reducing operational risk. Phase one of the programme went live in Sep 2016 by bringing more transparency in the funds ecosystem. OJK and KSEI is working closely with banks including Standard Chartered Bank on phase 2, which aims to further enhance and automate the process for asset managers to integrate with the trading and back-office platforms.

Indonesian depository has been working with custodian banks to build an online connectivity with their post-trade. "This will improve the turnaround times for settlement make the entire process faster and streamlines, added the Standard Chartered spokesperson, adding that the bank is currently working with Indonesian regulators and agen-

THOUGHT LEADERS

ASEAN demands attention

CLIVE TRIANCE

HSBC

Clive Triance, HSBC's Managing Director, Global Head of Banks and Broker Dealers Sector in Hong Kong, explains why the ASEAN region is increasingly important to Asia's capital markets for international investors

> WHAT REGULATORY AND DEMOGRAPHIC FACTORS ARE DRIVING ASIAN CAPITAL MARKETS?

Regulatory change and the development of Asian infrastructures are driven, in large part, by what happens in the US and the EU. In the same way, investors from the US and the EU, who represent about two-thirds of global portfolio flows into Asia, are the principal target of efforts by regulators in the region to improve and extend their capital markets and the regimes that govern them.

The reforms include changes to make markets fairer, more efficient and safer. Progress signals to key index providers, and the investors that watch them, that these markets are capable of transitioning from frontier to emerging markets. When the designation becomes official – by inclusion in the appropriate MSCI index, for example – the effect is considerable additional inflow into the market in question.

Specific recent examples of improvements to the securities servicing environment in Asia can be found in the growing adoption of T+2 across the region. Australia, New Zealand and Vietnam made the shift in 2016; Singapore should achieve T+2 sometime in 2018.

> WHY SHOULD INVESTORS PAY SPECIAL ATTENTION TO THE ASEAN BLOCK?

The ASEAN region – Thailand, Malaysia, Singapore, Vietnam, Philippines and Indonesia – has attracted a good deal of excitement over the last couple of years.

The region's favourable demographic picture is already beginning to have an effect on the economic one; the region has a combined population of 568m. Between 2007 and 2015, ASEAN recorded an annual growth rate of 5.3%, and its 2015 GDP of $2.4trn makes it the third largest

> "The demographic case for investing in the ASEAN region is compelling."

economy in Asia and the 6th largest globally. In 2015, the region also accounted for the fourth largest share of global trade, at $2.3trn[1].

In the near term, the demographic case for investing in the ASEAN region is compelling. By 2015, according the World Bank, ASEAN countries boasted a quarter of the world's total population. By 2030, the IMF estimates that 55% of these will be in the middle class, a total of about 400m people (by the same date two-thirds of the world's middle class will be Asian).

If the ASEAN region is treated as a single country it would rank first in the world for the number of cities in the top 100 business process outsourcing (BPO) locations worldwide, second in total foreign direct investment (FDI) flows; second in the number of monthly Facebook users, as well as third in overall population, annual gross national savings and the number of households with an income of $10,000 or more.

> WHAT INFLUENCE WILL DEMOGRAPHIC AND ECONOMIC FACTORS HAVE ON THE DEVELOPMENT OF ASEAN CAPITAL MARKETS?

In addition, the region is enjoying a process of rapid urbanisation, a broad shift to representative democracy and a young, tech-savvy population. The factors combine to provide circumstances that could be ideal for the growth of financial services. In particular, growing affluence and a favourable demographic balance bodes well for the growing penetration of investment and insurance products.

With Chinese GDP growth figures continuing to slow – despite small recent gains, the growth rate remains below its recent historical average – investors and companies are looking increasingly to ASEAN countries as alternative investment destinations. While increasing labour costs have ramped up the cost of manufacturing in China, for example, those in ASEAN countries continue to be low. This likely result in the coming years could be a continuing shift of manufacturing to ASEAN countries. I think this will, in turn, continue to favour the development of the region's local securities markets.

> ON BALANCE, HOW DO THE PROSPECTS FOR ASEAN COMPARE WITH THOSE FOR CHINA AND INDIA?

At the level of individual countries, none of the ASEAN members may attract as much interest from international investors as say, China or India. Collectively, however, the ASEAN region's strong demographics should ensure the stories of these countries remain compelling ones over the mid-term.

HSBC has been active in helping shape the regulatory and commercial landscape in each of these countries. Regulators have consulted with us, seeking advice and insight into what neighbouring countries are doing and how far they should adopt the same approach. We will continue to have a central role and an exclusive perspective on how these markets develop in the coming years.

1 ASEAN.org

The prospects of ASEAN countries

> SINGAPORE

With around 5.8m of ASEAN's total of 568m people, Singapore is small in population terms. However, the country has developed as a leading regional economy and has established itself in particular as an offshore financial services location.

The country's regulator is looking to attract further foreign investment by positioning the country as the financial technology hub of Asia. To this end it has committed itself to developing a "regulatory sandbox" in the coming years: a safe space in which financial technology firms can develop and test products under more flexible regulatory standards. In exchange for appropriate safeguards in their testing models, companies can be confident that their experimental innovations will not be curbed by sudden regulatory crackdown.

In 2014, Prime Minister Lee Hsien Loong announced plans to make the city state into the world's first smart nation by 2030. The government has pledged to use technology throughout the economy – and in all areas of society - to improve citizens' standard of living. At the heart of the new vision are efforts to promote collaboration between the sectors of technology, financial services, the research industries and institutions of higher learning as well as other innovation professions and government agencies.

In financial services efforts are focussed on developing Application Programming Interfaces (APIs) to open up the banking system. (APIs refer to the system or programming innovations that allow existing applications to interact – combining mobile retail banking interfaces with back office settlement systems, for example).

All this is helping to build a vibrant ecosystem for innovation, which should attract the best in international talent, specialising in the cutting edge research necessary to achieve ground-breaking discoveries that propel industry and society forward. A recent report by Ernst & Young for the UK Treasury put Singapore fourth in the world for the quality of its innovation, ahead of Germany and Hong Kong and behind only the east and west coasts of the US and the UK.

Singapore may not be about to win the population race – or even the competition for the world's fastest growing economy – but it may yet become one of the world's leading centres for innovation in general and financial technology in particular.

› MALAYSIA

A recent $32bn bilateral agreement was signed between Malaysia and China, as part of China's Belt and Road initiative. Malaysia is also pursuing a national transformation plan, the goals of which include increasing the population from its current 31m to 50m by 2050.

In March, the Alibaba Group and the Malaysia Digital Economy Corporation (MDEC) launched Malaysia's Digital Free Trade Zone. It is the world's first special trade zone and targets the growth of e-commerce by providing a supportive environment in which small and mid-sized companies can transact products and services. The project is aiming to account for $65bn in trade for Malaysia by 2025. Jack Ma, Alibaba's founder, launched the project and it will be the firm's first e-hub outside its home market of China.

› INDONESIA

The world's fourth most populous country holds considerable potential when it comes to the development of its capital markets. Demographically, it boasts a young and increasingly affluent population; 100m monthly Facebook users and a capital city, Jakarta, where residents are the world's most active Twitter users. Its proximity to China and key role in the ASEAN network means it is well placed for future development, which is set to include considerable infrastructure investment. Financial markets, and the involvement of international investors, will be the key to the financing of this.

> "These markets are capable of transitioning from frontier to emerging markets."

› PHILIPPINES

The Philippines also benefits from the favourable macro-economic trends that are helping many of its ASEAN neighbours develop their capital markets. With big commitments to infrastructure spending, a young population and high domestic consumption the fund industry is set to grow, led by the insurance and trust sectors. The labour force is well educated, has strong language skills and a reputation for working hard.

The regulator is working to develop an investor-friendly environment as well, approving new products, including dollar-denominated listings for public-private partnerships. The central bank has relaxed FX regulations, including the purchase limit for domestic residents, which allows residents to trade more. Reforms have also speeded up the cheque clearance system, which is now achieved in one day.

› THAILAND

In 2015, the Thai government announced a 20-year national strategy including a five-year economic plan. The latter includes changes in tax regulations, improvements to government transparency, reform of state enterprises and moves to improve governance standards. A recent memorandum of understanding has been signed with China to create a $5bn high-speed rail link – once again, part of China's Belt and Road initiative.

Further government initiatives have targeted innovation, technology, aviation and the creation of a medical and biotech hub, with another for robotics. Capital markets are benefitting from plans to introduce T+2 as well as a national e-payment initiative. Progress on the former includes the establishment of a pre-settlement matching system, which should see T+2 go live in September.

› VIETNAM

Vietnam enjoys low labour and input costs and a young workforce, both of which are helping to attract a high level of foreign development capital to the country. The government has embarked on a programme of selling stakes in many of the country's state-owned enterprises, helping to raise government revenue, reduce the costs of subsidies and increase dollar investment in the country.

cies during testing and implementation of these platforms.

JAPAN

UNWEIGHTED

RANK		Score
1	Mizuho Bank Ltd	6.48
2	Bank of Tokyo-Mitsubishi UFJ, The	5.64
3	Sumitomo Mitsui Banking Corporation	5.54

WEIGHTED

RANK		Score
1	Mizuho Bank Ltd	6.07
2	Sumitomo Mitsui Banking Corporation	6.04
3	Bank of Tokyo-Mitsubishi UFJ, The	5.04

Increasing foreign investment in equities, the Japanese Exchange Group's (JPX) business-model shift amid severe global exchange competition and the gradual shift from deposits to investment by domestic retail investors continue to be the dominant trends influencing the Japanese capital markets, according to experts at Aite Group.

"The relative stability and reliability of the Japanese securities market continue to attract investment and trading flow into the Japanese market from the active foreign investor community," Gabriel Wang, analyst at the capital markets consultancy, wrote in a 2016 report.

Explosive growth of ETF trading has been driven by domestic retail investors, the good performance of the equities markets and foreign institutions that took a market-making position. Among institutional investors, banks are rapidly increasing ETF ownership.

Aite's study Japanese Securities Market: The Sun Rises Again suggests that low trading fees and long operation times are not enough for Japanese proprietary trading systems (PTSs) to increase their shares under current regulations. "The market structure monopolised by JPX will not change, at least not in the next five years, because of its overwhelming liquidity and sophisticated trading platform."

Meanwhile JPX has also the importance of derivatives trading to attract foreign investors and to stabilise the revenue under global exchange competition. The bourse also plans to enhance partnerships and derivatives cross-listing between Asian exchanges rather than consolidating other derivatives exchanges. "The biggest challenge for JPX is its high dependence on equities trading over derivatives trading, compared with other main Asian exchanges. Its primary IT investments are derivatives trading systems and OTC clearing systems," added Aite's Wang.

Japan Securities Clearing Corporation (JSCC) is a subsidiary company of JPX and is responsible for clearing cash products in exchanges in Japan. After July 2013, when the clearing operation of exchange derivatives was moved to JSCC from Osaka Exchange, JSCC began to undertake all exchange futures and options clearing (index futures and options such as Nikkei 225 and TOPIX), individual options and Japanese government bonds futures and options, and OTC government bonds.

For OTC derivatives, JSCC started clearing indexed CDS (July 2011), Libor interest rate swaps (October 2012), Japanese overnight index swaps (November 2014), DTIBOR swaps (December 2014), and non-JPY IRS clearing (September 2015), keeping pace with regulation updates about OTC derivatives after the financial crisis. In Japan, the current clearing cycle of stocks is mostly T+3.

It's also worth noting that over twenty companies are taking part in a blockchain consortium spearheaded by the JPX. The capital markets infrastructure-focused project was announced last November, with the Tokyo Stock Exchange and the Osaka Exchange, in conjunction with the JSCC, forming the initial members of the group. On March 17, new members were revealed, including Mizuho Bank, Daiwa Securities Group, Merrill Lynch Japan Securities and Nomura Holdings, among others.

KAZAKHSTAN

UNWEIGHTED

RANK		Score
1	Citi	5.00

WEIGHTED

RANK		Score
1	Citi	6.31

Kazakhstan has become something of an economic model in its region, having been granted market economy status by the United States, and now accounts for 60% of the central Asian GDP. It has suffered from declining commodity prices and is pursuing economic diversification, although this is at a relatively early stage. It does not lack ambition, however; its Strategy 2050 aims for it to become one of the world's top 30 economies and join the OECD.

MALAYSIA

UNWEIGHTED

RANK		Score
1	Deutsche Bank AG	5.52
2	HSBC	5.52
3	Standard Chartered	5.19

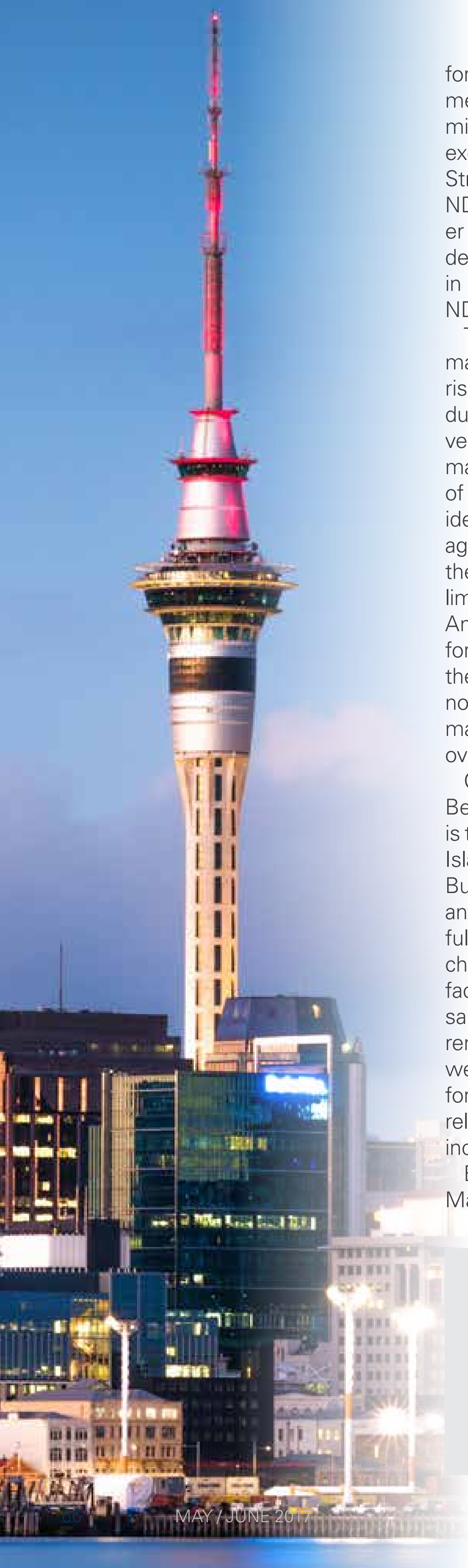
WEIGHTED

RANK		Score
1	HSBC	6.61
2	Deutsche Bank AG	6.07
3	Standard Chartered	5.17

The central bank, Bank Negara Malaysia (BNM), has successfully enabled Swift message interface for securities-related messages between their Real-time Electronic Transfer of Funds and Securities System (RENTAS), Scripless Securities Depository System (SSDS) and its SSDS participants.

"This platform has provided a more efficient and straight-through processing environment by eliminating manual pre-matching of bonds transactions. It will transform the competitive dynamics of Malaysia's capital market," said Aloysius Wee, head of HSBC Securities Services Malaysia.

"In an effort to restrict the usage of the MYR NDF [non-deliverable



forward], we saw stronger enforcement of the Foreign Exchange Administration Rules by BNM to curtail excessive speculation on the MYR. Stringent efforts in reducing MYR NDF activities brought about greater migration of flows to the onshore deliverable market, which resulted in subsequent reduction in the MYR NDF market."

To provide greater flexibility for market participants to manage FX risks, new measures were introduced. Resident and institutional investors can register with BNM and manage their FX exposure up to 25% of their Ringgit invested assets. Residents (including resident fund managers) may freely and actively hedge their USD and CNH exposure up to a limit of MYR6m per client per bank. And, to broaden the accessibility of foreign investors and corporates to the onshore FX market, offshore non-resident financial institutions may participate in the appointed overseas office (AOO) framework.

On the exchange, Bursa Malaysia Berhad's long-standing commitment is to make Malaysia a comprehensive Islamic investment. Bursa launched Bursa Malaysia-i, a shariah-compliant platform and the world's first fully-integrated Islamic securities exchange platform. "In creating a more facilitative trading environment, Bursa has effectively enabled multi-currency fixed income instruments in its web-based Electronic Trading Platform (ETP) to ensure the ongoing relevance of the platform for fixed income instruments," said Wee.

Bursa also launched the Equities Margining Framework to meet Principle 6 of the Principles for Financial Market Infrastructures issued by the Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions.

Bursa Malaysia recently expanded the Securities Borrowing and Lending Negotiated Transactions (SBLNT) framework to facilitate settlement of potential failed trades and revised the uptick rule on regulated short selling (RSS). The withholding tax on REIT distributions for non-resident companies will be 24% arising from amendments introduced in the Finance Act 2015, gazetted on December 30 2015 for distributions in 2016 and subsequent years. This will reduce tax obligations, making investments more attractive to both local and foreign investors.

NEW ZEALAND

UNWEIGHTED

RANK		Score
1	BNP Paribas Securities Services	6.73
2	HSBC	5.44

WEIGHTED

RANK		Score
1	HSBC	6.63
2	BNP Paribas Securities Services	4.83

The Reserve Bank of New Zealand has previously advised that they are replacing the NZClear and ESAS systems. "Replacement is required to significantly improve system resilience and security," says David Braga, head of securities services Australia and New Zealand BNP Paribas [SS].

NZClear has chosen to partner with SIA-Perego to develop and deliver a

> "SECP published a comprehensive Capital Market Development Plan outlining the future roadmap for the capital market, including reforms"

new CSD platform aimed at delivering as close to current functionality as possible. NZClear is also considering whether to use this re-platforming project to remove non-core CSD functionalities such as NZClear existing cash payment facilities.

In the meantime, the NZX is proposing to offer a competitive CSD and OTC settlement for all listed and unlisted equity and debt products offered by NZClear leveraging on their existing platform (e.g .BaNCS Market Infrastructure) relying on existing and published messaging interface.

"This competition in the post-trade settlement sector will hopefully offer to domestic and foreign investors the benefits of lower market charges and enhanced market capabilities in the near future," added Braga.

PAKISTAN

UNWEIGHTED

RANK		Score
1	Deutsche Bank AG	5.20

WEIGHTED

RANK		Score
1	Deutsche Bank AG	5.76

The three stock exchanges located in Karachi, Lahore and Islamabad were integrated into a single, unified, national level trading platform under the name of Pakistan Stock Exchange Limited (PSX) in 2016. More recently, the country has been upgraded by the MSCI from a frontier to an emerging market.

The Securities and Exchange Commission of Pakistan (SECP) published a comprehensive Capital Market Development Plan (2016-18), outlining the future roadmap for the capital market, including reforms for issuers and capital market intermediaries and reforms for product and market development.

Elsewhere, central depositories (licensing and operations) regulations were approved last year. Private fund management regulations introduced in 2015 continue to be promoted to facilitate the launch of private equity, venture capital and alternative funds including SME, infrastructure, debt and hedge funds.

Growth in the commodities' market is continuing and can be attributed to the listing of new products such as red chilli weekly futures contracts and gold futures contracts denominated in Canadian and Australian dollars, and Swiss francs.

In order to promote Islamic finance in the country and on the SECP's proposal, a 2% tax rebate for Sharia-compliant listed manufacturing companies was also approved in the Finance Act, 2016. Subsequently the federal government, on the recommendations of the SECP, has accorded tax neutrality to sukuk by allowing certain tax exemptions that were earlier available only to conventional securitisation issues.

It is hoped these measures would result in growth of Islamic finance in the country as the corporate entities have the compatible option to raise capital requirements in accordance with Sharia. Various pieces of legislation were promulgated, including the Futures Market Act, 2016, establishment of NCCPL as a central counterparty and settlement guarantee fund, new brokers' regime and others have contributed to better superintendence and control over capital and financial services market.

The National Clearing Company of Pakistan Limited (NCCPL) is responsible for computing and collecting capital gains tax (CGT) on behalf of the Federal Board of Revenue in Pakistan. "In order to streamline the process, SCB made number of suggestions to improve the way the information is gathered and communicated to the investors for their action i.e. to validate and make the tax payment," said a spokesperson for Standard Chartered Bank.

Two suggestions have been accepted and implemented by NCCPL. Firstly, CGT reports should be available on a fixed date every month and the information should be given at the investor level to allow custodian banks to immediately pass on the details to clients/investors without any manual intervention. The second change is the extension of the payment deadline by three to five additional days to allow sufficient time to review, and instruct local custodian to make the payment.

PHILIPPINES

UNWEIGHTED

RANK		Score
1	Deutsche Bank AG	5.62
2	HSBC	5.19
3	Standard Chartered	5.08

WEIGHTED

RANK		Score
1	HSBC	6.51
2	Standard Chartered	5.29
3	Deutsche Bank AG	5.05

The Philippines economy continues to grow at one of the fastest rates in the region, anchored on strong economic fundamentals and efforts to enhance the country's capital markets. In 2016, regulators approved several new regulations to introduce new products in the market, including equities trading of dollar-denominated securities and listing of public-private partnership (PPP) companies.

A plan to merge the country's stock and fixed income markets has been on the cards since 2013 and has not lost steam despite delays. In the Philippines, the trading platform for equities is run by the Philippine Stock Exchange (PSE) while the bond exchange is run by the PDG Group. The PSE has offered PHP2.25bn ($0.45bn) to buyout of PDS Group as a way to push forward unification.

The merger has to gain approval of the SEC – and in March 2013 the regulator unanimously denied the request, not being convinced it was in the public interest. "On the other hand, the SEC said that its decision to deny the proposed merger 'is without prejudice to any subsequent application by the PSE for similar reliefs in the future'. The PSE is currently reviving its plan and has signed agreements to resume discussions on the merger with some of the stakeholders," said a spokesperson for Standard Chartered Bank. "The merger is expected to deliver efficiencies and the lowering of costs."

The Philippine Central Bank, Bangko Sentral ng Pilipinas (BSP), relaxed foreign exchange regulations, including an increase in residents' FX purchase limit without BSP approval and providing an additional one-year grace period for the registration of foreign direct investments.

Maris Flores, head of HSBC Securities Services Philippines, said: "Two much-awaited regulatory changes expected within the year include the relaxation of foreign exchange regulations to enable repatriation of funds from disapproved rights subscriptions and the streamlining of the tax treaty relief process for dividend, interest and royalty income."

The launch of the Securities National Market Practice Group in November 2016 is expected to bring in best practices/standardisation and short-term efficiencies, especially in the trading and settlement as well as corporate actions streams.

The Bureau of Internal Revenue (BIR) released Revenue Memorandum Order (RMO) No. 8-2017, which prescribes the procedures for claiming tax treaty benefits for dividend, interest and royalty income of non-resident income earners in the Philippines. The RMO simplifies the procedure for claiming tax treaty benefits for dividend, interest and royalty income of non-resident income earners and amends RMO 72-2010.

"Instead of filing tax treaty relief applications (TTRA), non-residents' income earned in the Philippines can automatically be applied with the preferential rate or exemption prescribed under tax treaties on these types of income by submitting, to the International Tax Affairs Division of the BIR (BIR-ITAD), a Certificate of Residence for Tax Treaty Relief (CORTT) duly accomplished by the non-resident and withholding agent," said a spokesperson for Standard Chartered Bank.

SINGAPORE

UNWEIGHTED

RANK		Score
1	BNP Paribas Securities Services	5.58
2	DBS Bank Ltd (formerly Development Bank of Singapore)	5.42

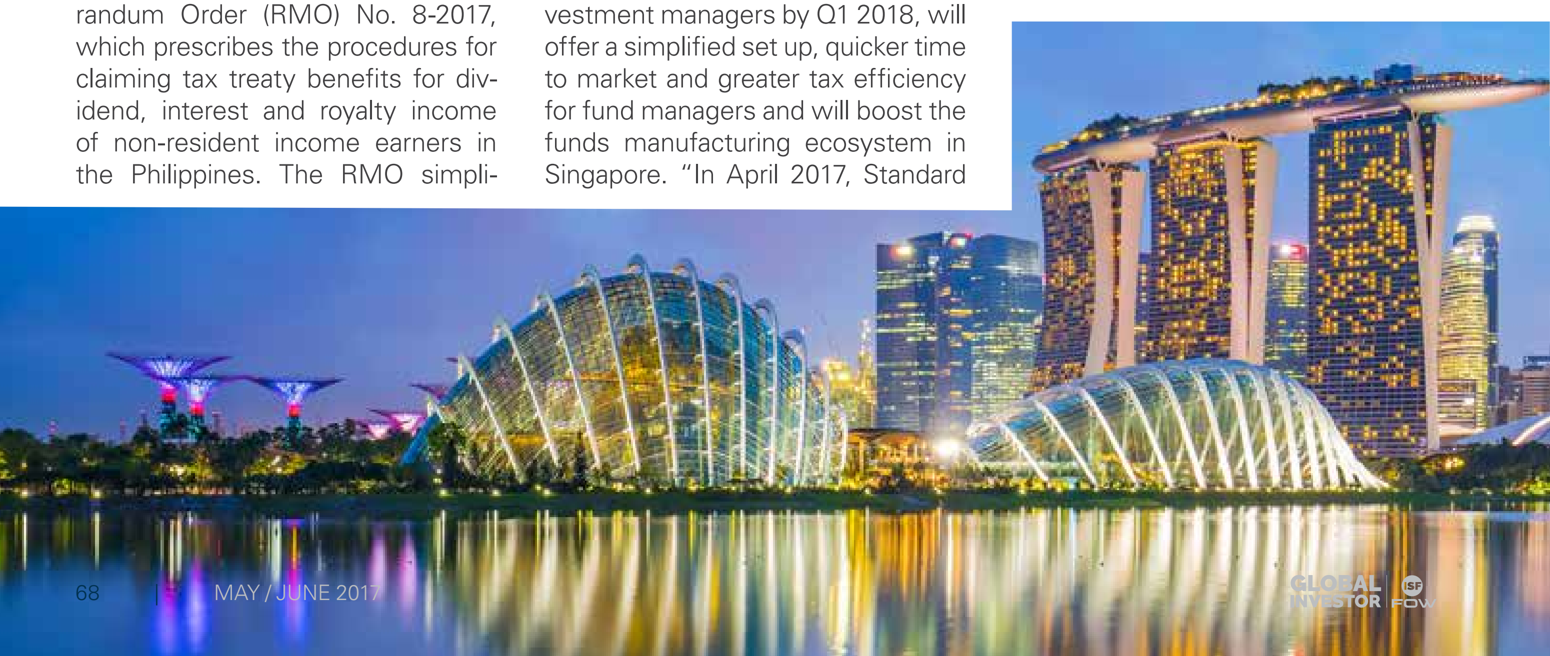
WEIGHTED

RANK		Score
1	DBS Bank Ltd (formerly Development Bank of Singapore)	7.19
2	BNP Paribas Securities Services	4.34

The Monetary Authority of Singapore (MAS) is establishing a Singapore Variable Capital Company (S-VACC) structure, which will provide an alternative fund vehicle for asset managers. S-VACC, to be available to investment managers by Q1 2018, will offer a simplified set up, quicker time to market and greater tax efficiency for fund managers and will boost the funds manufacturing ecosystem in Singapore. "In April 2017, Standard Chartered was the first bank in Singapore to host an S-VACC event and will be embarking on a series of road shows in Europe to promote Singapore as a leading fund centre in APAC," a spokesperson for Standard Chartered Bank said.

There have been significant developments in the post-trade market infrastructure for the Singapore Exchange (SGX). Standard Chartered is as a leading provider of account operator services to international broker dealers managing more than 60% of volumes on the exchange for its clients. In Q1 2017 it successfully transitioned all its broker-dealer clients to ISO20022. SGX has initiated the next phase and will incorporate changes to both cash and securities settlement frameworks and will affect numerous depository agents functions.

"Standard Chartered is excited to be working with SGX on making these transformative changes that include the removal of two tier bank guarantees, moving buy in process to the day of settlement date and simultaneous DVP. These changes will benefit the broker-dealer community tremendously and strengthen the overall settlement process," said the spokesperson, who added that the bank is an active participant in the project working committee and that the industry is working to



build industry standards and new frameworks.

MAS has embarked on an ambitious initiative on cross-currency payment and delivery versus payment (DVP) using cash on ledger concepts and utilising new technologies. In its end state, it will allow banks and custodians to have longer service windows and queueing algorithms to resolve deadllocks to transactions.

SGX is conducting a proof-of-concept for a blockchain project for a platform in the fixed income market that to be launched within the next two years, to improve secondary trading in the OTC fixed income market.

SOUTH KOREA

UNWEIGHTED

RANK		Score
1	Deutsche Bank AG	5.54
2	HSBC	5.41

WEIGHTED

RANK		Score
1	HSBC	6.20
2	Deutsche Bank AG	6.11

The Korean Exchange (KRX) announced the extension of trading hours of the regular trading session of its markets (equity, derivatives and commodities) by 30 minutes from August 1 2016, to improve global competitiveness and investment efficiencies.

The FSC shared detailed proposal procedures for placing an order through special nominee accounts

> “The Korean regulator, Financial Supervisory Service, introduced an omnibus account structure for foreign investors, effective from March 2017”

(SNA) for bond transactions but advised that the bond omnibus account structure will not be in scope of the July 2017 implementation, mainly due to complex capital gains tax issues. An amendment to Regulation on Financial Investment Business to include provisions of the SNA will appear before July 2017.

FSS amended the Enforcement Decree of the Regulation on Financial Investment Business regarding the omnibus account structure for foreign investors. Effective March 10 2017, a global firms may apply for omnibus IRC/account structure, with supporting documentation and permissions, with IRC applications requiring an additional report.

The Korean regulator, Financial Supervisory Service (FSS), introduced an omnibus account structure for foreign investors, effective from March 2017. The Omnibus Account allows settlement of multiple end investors to be done in a single settlement instruction. Trading orders and settlements of each end investor registered with the FSS had to be made separately for each end investor before the Omnibus Account was introduced.

"The Omnibus Account is not mandatory but optional as per investor's needs and is only applicable to trading and settlement of equities. Only Global Investment Managers and Global Broker-Dealers are qualified to apply for an Omnibus Account to the Korean regulator," said a spokesperson for Standard Chartered Bank. "All the existing regulatory obligations imposed on each underlying investor remain the same."

The KRX has detailed its plans to introduce a member margin requirement in the securities market, to enhance settlement stability, effective September 2017. For securities, KRX members will be required to deposit with the KRX a member margin in order to guarantee the repayment of debt to the KRX. Eligible transactions are equities in the KOSPI/KOSDAQ/KONEX market and listed equity-linked products such as ETF, ETN, ELW – so it will be applied to equities and equity-linked products with a settlement cycle of T+2. The KRX will decide whether to expand the requirement to products with a shorter settlement cycle (ie T+1, T) after further review.

The FSC has proposed legislation on short-sale position reporting, which would mean the KRX will designate overheated short-selling issues at the close of market under the following conditions: Short-selling ratio is 20%, or 15% Konex and Kosdaq; the short-selling ratio increases to more than double the 40 trading-day average; or there is a fall of 5% from the previous closing price. Rajesh Atal, head of HSBC Securities Services Korea, said: "In case of being designated as an overheated short-selling issue, the stock will be suspended from short-selling the following day."

The deadline on disclosure of short sale net positions will be cut by one day. Currently, investors need to disclose their short sale net position via the exchange immediately after the market close (ie after-hour session close) of the third business day following the date of trigger. "However, the proposal amendment requires the investor to disclose their short sale position immediately after the market close (ie after-hour session close) of the second business day following the date of trigger," added Atal.

FSC (Financial Services Commission) revised regulations to enable collateral top-up via securities lending; Korea Securities Depository (KSD) and Korea Securities Finance Corporation (KSFC) added 'collateral transaction' as one of the transaction types in March 2017. "With this regulation change, collateral pledge can be done in the form of an SBL transaction type called collateral transaction. Before, there were regulatory limitations for utilisation of SBL transactions to top-up collateral," the Standard Chartered Bank spokesperson added.

SRI LANKA

UNWEIGHTED

RANK		Score
1	HSBC	5.23

WEIGHTED

RANK		Score
1	HSBC	6.58

The Securities and Exchange Commission of Sri Lanka (SEC) rolled out its Capital Market Strategy 2020 in March 2017. The document outlines plans to strengthen regulation, address a scarcity of liquidity, enhance the country's product offering to investors and fill market infrastructure and technology gaps.

Regulatory enhancements include the establishment of a clearing house acting as a central counterparty (CCP), regulating demutualised exchanges, recognising new categories of market intermediaries and introducing a wide range of enforcement tools to deal with market misconduct.

The changes follow a recent invitation from the SEC to the International Organisation of Securities Commissions (IOSCO), the global standard-setter for securities market regulation, to conduct a country review and developing a roadmap for enhanced compliance.

Sri Lanka has also placed significance on the procurement of an advanced system for market surveillance and regulatory reporting to ensure that transactions are carried out in compliance with the rules governing capital market activity.

In order to better evaluate and address systemic risk, the SEC intends to adopt a risk-weighted capital adequacy framework for capital market institutions and intermediaries. This initiative is now underway and would address prevailing post-trade risks including asset commitment risk and counterparty risk.

Meanwhile, the implementation of new listing platforms for issuers of varied size, scale, maturity, and value-recognition needs is underway collaboratively with the Colombo Stock Exchange (CSE). The SEC along with the CSE is also keen to improve the efficiency and cost-effectiveness of the equity fundraising process through both operational and technological enhancements. Creating a robust bond market is also a significant component of the Capital Market Strategy 2020.

Funds and pension funds are also being encouraged to diversify their portfolios and increasing asset allocation to capital market investments. Headway has also been made in terms driving the implementation of a common stock broker back office and customised order management systems in conjunction with the CSE. This sets the infrastructural foundation for the proposed phased implementation of a CCP.

To increase portfolio choice of investors, the SEC is developing a sequencing framework for the introduction of new products ranging from real estate investment trusts (REITs) and exchange-traded funds (ETFs) to derivatives.

Over the medium to long term, far-reaching reforms proposed as part of the Capital Market Strategy 2020 would support the proposition to Morgan Stanley Capital International (MSCI) to reclassify Sri Lanka as an emerging market, providing for broader visibility as an attractive portfolio investment destination.

TAIWAN

UNWEIGHTED

RANK		Score
1	Standard Chartered	5.63
2	HSBC	5.46
3	Citi	5.44
4	Bank of Taiwan	5.32
5	JPMorgan	5.29

WEIGHTED

RANK		Score
1	Citi	7.53
2	Bank of Taiwan	7.17
3	JPMorgan	7.06
4	HSBC	6.75
5	Standard Chartered	5.96

In 2016, the Financial Supervisory Commission (FSC) and the Exchanges implemented a number of initiatives to improve corporate governance, boost trading and further enhance market efficiency, including three major changes. The first was to requiring all listed companies adopt e-voting as one of the options for shareholders' voting exercise with effect from 2018.

The second was revising the regulations governing public tender of-

> "The Securities and Exchange Commission of Sri Lanka rolled out its Capital Market Strategy 2020 in March 2017"

fers, which simplified the shares delivery process for foreign institutional investors (FINIs) to directly transfer the shares to the escrow account. The third was to allow dual-currency ETF trading, exempted transaction tax for corporate bonds/financial debentures and listed bond ETFs for ten years.

Furthermore, the Taiwan Stock Exchange (TWSE) planned several other initiatives, including extending SBL trading hours from January 9 2017, allowing all FINIs to engage in securities borrowing and lending trades from March 15 2017, and submitting a proposal for legislators' approval on reduction of transaction tax on day trading from 0.3% to 0.15%.

Eric Jai, head of direct custody and clearing, Taiwan, HSBC, said: "Following continuous industry efforts in 2016, FSC recently lifted the daily limit for short-selling of borrowed securities and exempted privately placed convertible corporate bonds from the 30% rule of non-equity investment."

As the chair of the custodian working group and co-chair of the Capital Markets Committee of the American Chamber of Commerce, HSBC Taiwan was engaged in the discussions related to market initiatives with the local regulators and industry members, and collected international market practices and institutional investors' suggestions to continuously lead market development.

Recent initiatives include developing market standard Swift message types for rights issues in Taiwan. The TWSE has worked with participants to build up a platform to permit custodians to collect details of SBL trades booked under broker-scheme SBL for client reporting.

THAILAND

UNWEIGHTED

RANK		Score
1	HSBC	5.64
2	Standard Chartered	5.32

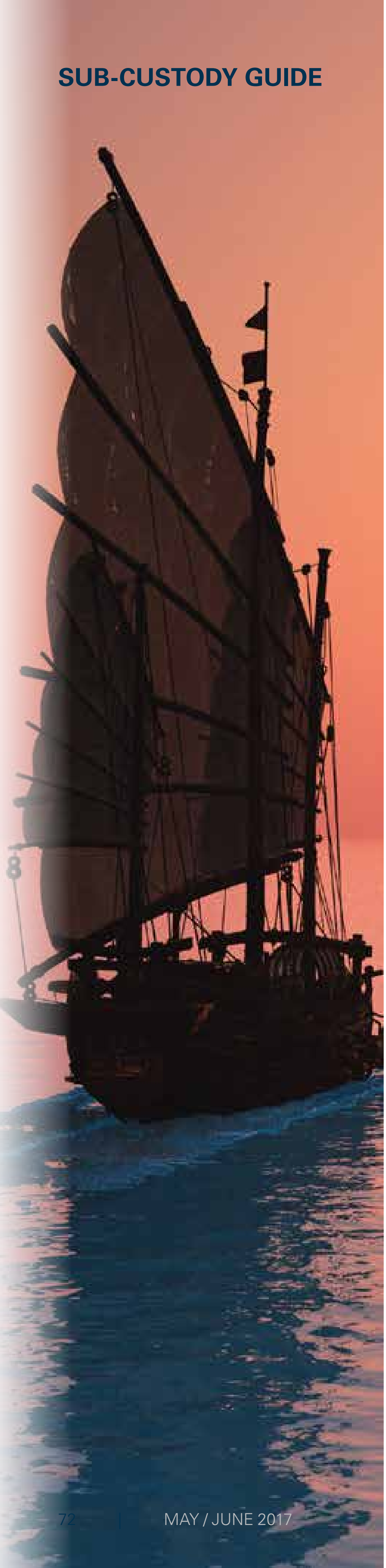
WEIGHTED

RANK		Score
1	HSBC	6.38
2	Standard Chartered	5.63

In 2016, Thailand was focused on the implementation plan to move the settlement cycle for equities from T+3 to T+2 to align with other markets within the region. The Stock Exchange of Thailand (SET) announced that the targeted first trade date under a T+2 scheme will be March 2 2018.

One of the key factors for T+2 is to bring more automation and STP in the process through the Pre-Settlement Matching System (PSMS). There are two projects to complete in advance – the enhancement of PSMS function for onward transactions, tentatively by September 11 2017, and the pending settlement model by November 6 2017.

The T+2 sub-committee meetings bring together the SET and regulators, which include the Bank of Thailand (BOT), Securities and Exchange Commission (SEC), Association of Thai Securities Companies (ASCO), and the Thai Bank Association (TBA) as well as Utumporn Viranuvatti, head of HSBC Securities Services Thailand and chairperson of the



Custodian Club.

"HSBC Thailand is a member of the industry working group that closely works with SET and other representatives on these two market initiatives and led the discussion with the SET to adopt the concept of using Swift to auto-link onward transactions with POOL ID in order to perfect PSMS functionality."

The Securities and Exchange Commission (SEC) is working to relax the annual documentation renewal for notarisation and consularisation by foreign juristic investors. It has consulted on the non-standard validity period of documentation required by some issuing companies to participate in voluntary corporate events, such as proxy voting, warrant exercise and rights offering. "As a result of continued advocacy and lobbying, the SEC has issued guidelines for all listed companies to rely on documentation submitted by local custodian banks acting as agents for foreign juristic customers," said Viranuvatti.

The issued guidelines aim to help reduce the burden of investors in preparing documentation, to gain good corporate governance in the Thai market and to be in line with other countries' practices in the region.

VIETNAM

UNWEIGHTED

RANK		Score
1	HSBC	5.33

WEIGHTED

RANK		Score
1	HSBC	6.90

There are currently two stock exchanges in Vietnam – the Hanoi Stock Exchange and the Ho Chi Minh City Stock Exchange. It was announced in October 2016 that the Hanoi and Ho Chi Minh exchanges will merge, with a target completion date of 2018.

"Drivers for the merger include a more prominent profile for Vietnam's capital markets sector generally and a competitive edge for Vietnam over its Asean neighbours, which have smaller exchanges – particularly those of Thailand and the other CMLV countries [Cambodia, Myanmar and Laos]," experts at law firm LNT Partners wrote in a note to clients in January.

In 2016 certain industries including, securities firms, were opened up to 100% foreign holding encourage foreign investment in the country. This has encouraged private equity and M&A interest from Thailand, Japan, China, Korea and Indonesia. There are 18 sectors including transportation, construction and real estate where offshore investors can take a degree of ownership subject to certain conditions.

Meanwhile, Vietnam's benchmark VN Index (VNI) has been one of the fastest growing markets in Southeast Asia. The country plans to open a derivatives market in June this year in a bid to draw more investment to its capital markets, with futures contracts set to launch first.

"In frontier countries, the equity markets tend to be the focus for foreign investors seeking access to and participating in the rapid growth these countries are experiencing, and Vietnam is no exception," experts at VinaCapital wrote in a note last year. "After starting the year affected by global issues, Vietnam's stock markets have recovered well, breaking through several historical barriers and reaching eight-year highs.

"Corporate earnings are generally solid, liquidity has been increasing, and additional privatisations and the lifting of foreign ownership limits all point to continued market growth. In contrast, Vietnam's bond markets have, until very recently, shown little such promise. While government bonds continue to be an important vehicle for raising funds and have seen reasonably robust sales in the past six months, corporate bonds have been relatively static."

SUB-CUSTODY GUIDE

EUROPE

AUSTRIA

UNWEIGHTED

RANK		Score
1	BNP Paribas Securities Services	5.95
2	UniCredit	5.12

WEIGHTED

RANK		Score
1	BNP Paribas Securities Services	6.81
2	UniCredit	5.89

Austria is a bearer market and the vast majority of securities are held in the form of global certificates deposited with OeKB GmbH, which eliminates the need for physical securities. Custodians maintain custody accounts at Austrian Central Securities Depository (OeKB), which are updated automatically upon settlement.

"Austria is fully G30 recommendation-compliant and the nominee concept is recognised," according to Tina Fischer, senior relationship manager at UniCredit GSS Austria. She added that the key regulatory change this year involved Austria's successful migration to Target2-Securities (T2S) as of February 6 2017, in the fourth wave.

The initiative was launched by the ECB to harmonise securities settlement in central bank money. Austria is one of the 16 CSDs that have migrated to the T2S platform (22 are planned).

"The forthcoming changes in the Austrian market revolve around Emir and AIFMD as well as Ucits V," said Fischer. "Currently, the Austrian CSD prepares for CSD regulation (CSDR) certification. In the future, settlement discipline should be increased by implementation of penalties for over-the-counter transactions in line with CSDR. However, currently no further details are available and there is no schedule as to when this will be introduced."

The Austrian capital market switched service providers in September 2015 to the OeKB, which opens settlement securities custody accounts and exchange cash amounts for stock exchange members and section member banks, as well as settlement securities accounts for custodians.

BELGIUM

UNWEIGHTED

RANK		Score
1	BNP Paribas Securities Services	5.13
2	Deutsche Bank AG	4.97

WEIGHTED

RANK		Score
1	BNP Paribas Securities Services	5.20
2	Deutsche Bank AG	4.39

Euroclear Belgium acts as the CSD for all domestic and foreign certificates, including most international depositary receipts (IDRs), warrants and corporate bonds listed on Euronext Brussels.

On March 29 2016, the National Bank of Belgium Securities Settlement Systems (NBB-SSS) completed its outsourcing of settlement to T2S, representing the second wave in the project and necessitating industry-wide changes.

Euroclear Belgium, unlike the NBB-SS, finalised its T2S migration to the third wave on September 12 2016, alongside its French and Dutch depositories. In a statement, the group said that it would "work closely with the ECB, the CSD community and our clients to evaluate possible alternative migration scenarios, in order to minimise the impact of this delay."

In December 2016, Euronext announced it had completed the acquisition of a 20% equity stake in Euro CCP, the leading CCP for pan-European equity markets, for an amount of €13.4m ($15m) in EuroCCP, providing clearing and settlement services.

BOSNIA AND HERZEGOVINA

UNWEIGHTED

RANK		Score
1	UniCredit	5.25

WEIGHTED

RANK		Score
1	UniCredit	5.05

The recent changes in the regulations for the capital markets of Bosnia and Herzegovina (FBiH) are related to the laws on the securities market and investment funds, according to Lejla Sabljica, head of UniCredit GSS Bos-

nia and Herzegovina.

Sabljica said: "Amendments to the Law on Securities Market in FBiH, which came into force January 25 2017, introduced obligation for investors to obtain approval from Securities Commission (SC) for reaching ownership thresholds in broker-dealer companies – equal to or exceeding 10%, 20%, 33%, 50% and 66% – and to inform SC about intentions to decrease their shares."

The request for approval is also required for reaching above noted thresholds in the capital of the stock exchange, Sabljica said.

These amendments to the Law on Securities Market in FBiH were published in April 2017, introducing new conditions for approval and circumstances under which the SEC will refuse to issue approval for legal entities and natural persons to acquire or increase their qualified share (10%, 20%, 30% or 50%) in the capital of professional intermediaries or the stock exchange. "The conditions are mainly related to anti-money laundering and combating the financing of terrorism controls," said Sabljica.

Additionally, amendments to the Law on Investment Funds in FBiH introduced obligations for investors that intend to acquire shares or increase their share in capital of a fund management company equal to or exceeding 20%, 30% or 50% to obtain approval from the SC.

BULGARIA

UNWEIGHTED

RANK		Score
1	Eurobank	6.16
2	Citi	5.27
3	UniCredit	5.00

WEIGHTED

RANK		Score
1	Citi	6.52
2	UniCredit	6.31
3	Eurobank	3.69

Bulgaria's central depositary AD (CDAD) launched its new IT system in February 2016, bringing "significant changes" to the post-trading market infrastructure, said Borislav Hitov, head of UniCredit GSS Bulgaria.

Among the most important amendments, according to Hitov, were: separating register and settlement & clearing models; omnibus accounts designated by CDAD and visible in shareholder books; and the establishment of a settlement guarantee fund.

CDAD is currently working on the introduction of a third daily settlement cycle for against-payment transactions to align its activity with CSDR requirements.

Trading in government securities on a regulated market will be introduced at some point in 2017. Hitov said that this measure will "reduce settlement risk, improve trading access of foreign institutional investors and possibly make government securities more attractive for investment as after the listing certain tax benefits for capital gains and interest income will be available".

The local regulatory framework has changed and investment intermediaries are no longer required to check securities' availability with custodians before a sale trade, which simplifies trading and ensures no rejected or delayed sale orders result.

CROATIA

UNWEIGHTED

RANK		Score
1	Splitska Banka	6.28
2	Privredna Banka Zagreb d.d.	5.13
3	UniCredit	5.00

WEIGHTED

RANK		Score
1	Privredna Banka Zagreb d.d.	6.37
2	UniCredit	6.21
3	Splitska Banka	4.43

The Croatian capital market is regulated and supervised by three legal bodies: Croatian Financial Services Supervisory Agency (HANFA), Croatian National Bank (HNB) and the Ministry of Finance.

Croatia, as the youngest member of the EU, has continued to harmonise with EU regulation, transposing it into market practice, primarily with reference to AIFMD, CSDR, Ucits V and Mifid II, according to Jelena Bi-

lusic, head of relationship management, UniCredit GSS Croatia.

"Low liquidity, a prolonged period of recession and the introduction of capital gains tax have had an unfavourable impact on turnover and the market trend in general," said Bilusic.

Bilusic said that encouraging macroeconomic data, political stability, changes to regulation and market infrastructure are expected to have positive influence: "GSS Croatia retains proactive approach in lobbying efforts to make the market more appealing and accessible to investors."

Securities on the Croatian market are traded on the sole stock exchange, Zagreb Stock Exchange (ZSE), and settled by the only CSD, the Central Depository & Clearing Company (CDCC).

"ZSE separated the regulated market from CE Enter in June 2016, in order to emphasise the difference in the entry requirements regarding transparency of issuers and financial instruments traded between the two markets," said Marina Šonje Tomorad, deputy director at Splitska Banka.

In August 2016, ZSE itself listed. "Zagreb Stock Exchange is the first regional self-listed stock exchange, setting new standards of transparency and acting as a corporate governance benchmark, and making a new step in further regionalisation, allowing ZSE to efficiently raise new capital for further growth if necessary," said Tomorad.

The SKDD is the sole depository in Croatia, with links to the Austria's OekB and Clearstream Banking Luxembourg.

In order to align with the provisions of CSDR Regulations and associated technical standards, a project team within the SKDD has developed a plan of activities.

"For all changes resulting from CSDR and RTS provisions [except settlement discipline measures], the operating rules of the process will be prepared by the deadline for submitting the authorisation request application, and the application and implementation of the aforementioned changes will be performed upon receiving the authorisation from Hanfa," said Tomorad.

Further, for all the changes resulting from the RTS on settlement discipline, the predicted deadline for implementation is the date of entry into force on RTS on settlement discipline, at the latest.

CDCC acts as the central registrar of dematerialised securities and performs the role of clearing and settlement for all types of dematerialised securities. The settlement cycle has been T+2 since October 2014.

Bulisic said: "CDCC's focus is on harmonisation with provisions of CSDR, expected to introduce significant changes to its business process, its members and participants of the Croatian capital market."

The scheduled go-live of the formal CCP, which was established to take over the clearing services for on-exchange trades from the CDCC and abolish guaranteed settlement for OTC trades, has been delayed until further notice.

› CYPRUS

UNWEIGHTED

RANK		Score
1	BNP Paribas Securities Services	6.18

WEIGHTED

RANK		Score
1	BNP Paribas Securities Services	6.30

The Cyprus Stock Exchange hosts all listed corporate and public securities. Since April 20 2015 the regulated markets consist only of the main market and the alternative market. The country's biggest bank, Bank of Cyprus, moved its listing to London in January 2017 and almost immediately returned to the debt market for the first time since it defaulted in 2013. It had also just paid back the last tranche of its bailout.

Cyprus is a growing fund jurisdiction; assets under management

> New thresholds and new sanctions for non-compliance with reporting obligations were introduced in 2016
>
> **Jitka Hulinská, UniCredit GSS Czech Republic**

have tripled since 2013 and are now above €3bn ($3.4bn). The Cyprus Investment Funds Association (CIFA) achieved an important milestone in June 2016, when the National Association of the European Fund and Asset Management Association (EFAMA), the representative association of the European investment management industry, approved its full and formal membership.

Cyprus is expected to grow by 3% in 2017, one of the fastest rates in the EU.

CZECH REPUBLIC

UNWEIGHTED

RANK		Score
1	Société Générale Securities Services	6.43
2	Citi	5.12
3	UniCredit	5.03
4	Raiffeisen Bank International	4.63

WEIGHTED

RANK		Score
1	UniCredit	6.00
2	Citi	5.64
3	Société Générale Securities Services	4.47
4	Raiffeisen Bank International	4.10

The Czech National Bank (CNB) regulates the market. There are two CSDs: Central Securities Depository Prague (CDCP), a depository for all book-entry securities excluding T-Bills, owned by the Prague Stock Exchange (PSE) and the Short Term Bond System (SKD), a depository for T-Bills, operated by CNB.

RM-Systém Czech Stock Exchange is the market where stocks of the largest Czech and foreign companies are traded. Stocks that are not available on the PSE are traded online.

Last year, there was an amendment to the Capital Market Act that adapted the local legislation to CSDR. Lukáš Osoha, custody head at KB Bank, expects some changes to the settlement period (currently T+2) after CSDR implementation.

2016 also saw the amendment of disclosure requirements, according to Jitka Hulinská, relationship manager, UniCredit GSS Czech Republic. "New thresholds and new sanctions for non-compliance with reporting obligations were introduced."

Last year, the board of CNB decided to stop the interventions against the strengthening of CZK below the level of CZK27 per euro in 2017. "The interventions have lasted since November 2013," she added.

In 2015 the Czech CSD initiated the transposition of European Market Standard for Corporate Action, which would require changing laws. The proposed changes include centralising of dividend payments through the CSD. Osoha said: "The implementation has not been finished yet but when the time comes it will change the whole process of CA which is quite complicated."

In September 2014, the PSE and CDCP introduced further plans for implementation of a central counterparty for on-exchange trade. The CCP will be provided by Austrian company CCP.A. "The timeframe for CCP implementation is not entirely clear, although it is obvious that the CCP will not be launched earlier than in 2017 or 2018," Osoha added.

There are no foreign ownership limits, except for armament companies where there is a 49% limit, but investing in some sectors does have pre-approval obligations."Foreign investors are required to obtain pre-approval from the CNB prior to acquiring 20%, 33%, 50% or more of the total outstanding voting rights of a Czech investment fund, investment company or brokerage firm," said Osoha.

Foreign investors may freely repatriate any gain, income and capital previously invested in the Czech Republic.

There are also further amendments planed for the Capital Market Act implementation EU regulations Mifid II, Mifir, MAR and CSDMAD, according to Hulinská. She also noted an upcoming amendment to the Income Tax Act: "Among other things, it will include a change relevant to custody, that is the tax payer may turn to the withholding agent for explanation or amendment up to two years from the date of the income payment."

CSD Prague will implement Swift communications at the end of 2017 or start of 2018.

DENMARK

UNWEIGHTED

RANK		Score
1	SEB	5.45

WEIGHTED

RANK		Score
1	SEB	5.61

The local sub-custodian in the Danish settlement market has a fully automated system, which is directly linked to the local CSD, VP Securities A/S. When the settlement has STP requirements, the instruction is automatically forwarded electronically to the CSD. The settlement period is T+2.

Almost all Danish securities listed on the Nasdaq Copenhagen Stock Exchange are issued in dematerialised form, except government premium bonds. Securities positions are transferred automatically as sub-custodian accounts at VP Securities. The name of a foreign investor can be linked to a specific account upon request. There is no central registrar in Denmark and issuers usually appoint agents as registrars.

Securities lending is practised in Denmark, but there is no centralised stock lending facilities with the CSD or the exchange – lending is available via commercial bank programmes. However, the volume in borrow/lending transactions is very limited.

"Two topics are of primary interest from a sub-custody point of view," said Lasse Larsen, head of investor services at SEB Denmark. The first, according to Larsen, is the fact the Danish market is focused on adapting to "regulation and harmonisation", exemplified by T2S and CSDR.

"VP Securities will connect to T2S in two phrases," said Larsen. "The first phase covering euro settlement took place in September 2016. The second phase will include DKK settlement and is expected to take place during October 2018, or sometime in the fourth quarter."

The second topic is the dividend tax treatment and the aftermath from a dividend tax fraud case, which was made public in August 2015. "The Danish Tax Authorities are working on mitigating risk under current tax law, while work is ongoing in regards to presenting a long-term solution, that will minimise the risk while at the same time enabling a more investor-friendly environment in that area," said Larsen.

› ESTONIA

2017 is a significant milestone for the Estonian securities market. "In the last two years, we have witnessed an appreciable increase in assets under custody for sub-custody clients," said Keili Oja, head of custody at SEB Estonia.

The Estonian CSD will migrate to the ECB's Target2 Securities (T2S) during the fifth wave on September 18 2017. As a direct holding market, Estonia will be the first market using the all-accounts-in model within T2S, according to Oja.

Clearstream announced in February that it had successfully migrated to the ECB's T2S platform, making it the largest participant and adding around 40% to the overall volume on the ECB's settlement platform.

"Prior to joining T2S, Estonian, Latvian and Lithuanian CSDs will merge into one license legal entity, Nasdaq CSD SE," said Oja. "The new entity will be subject to regulatory approval and it will be re-licensed under the European CSD regulation."

Nasdaq CSD will operate three securities settlement systems, which will be governed by the laws of each respective country. All three will work on a common IT platform called 'Depend', which is a version of the one Estonia currently uses.

The merger means that members of the Baltic stock exchanges and their customers do not need to open securities and cash accounts in each of the three Baltic countries to settle transactions; all they need is a single securities and cash account in one Baltic country.

Oja also revealed that Nasdaq CSD is developing a new web-based voting platform on the Nasdaq Tallinn Stock Exchange (the only regulated secondary securities market in Estonia), using blockchain technology.

The e-Residency platform is an electronic identity system that Estonian residents and those with business interests in Estonia use to access government services. "They already have a functioning proof of concept with web-based user interfaces," said Oja. "The first e-votings in actual meetings are expected to be carried out during 2017."

Nasdaq announced in January this year that the pilot project in Estonia was a success, concluding that blockchain technology can be safely used to authenticate e-voting by shareholders at a company's AGM.

Nasdaq said in a report that it had

successfully built and operated four web-based user interfaces that allowed shareholders in Estonia to log-in using their verified national online ID and vote at the AGM of Tallinn-listed tech company LVH Group.

FINLAND

UNWEIGHTED

RANK		Score
1	SEB	5.41
2	Nordea Bank	4.94

WEIGHTED

RANK		Score
1	SEB	5.59
2	Nordea Bank	5.09

"The Finnish market looked to 2016 with great anticipation, as it was to be when the Finnish CSD, Euroclear Finland (EFi), was to roll out the second release of the new CSD platform, Infinity," said Jopi Sairio, head of investor services at SEB Finland.

However, Euroclear Finland announced in January that it was to delay migration to T2S, which was scheduled for September this year, as its Infinity timetable slipped. A revised timetable for the Infinity Release 2 was due to be discussed in the meeting with the Finnish Market Advisory Committee in mid-February but nothing has been released publicly. The future of Infinity is unknown, but EFi pledged to clarify its plans at some point this year.

"The market was working hard to meet the set deadline," said Sairio. "Fixed income products had been migrated to the new platform in February 2015, and it was the time for equity-based products and the central register in 2016." The launch was postponed several times due to "various technical challenges".

Sairio said: "The Infinity project is heavily interlinked with the necessary CSDR compliance functionality adding on the pressure of EFi." EFi will apply for a CSD license under CSDR during 2018, according to Sairio.

During the summer of 1016, the Finnish government ratified amendments to the Tax at Source legislation according to the government bill HE 29/2016, shortening the statute of limitations from five to three years. The changes will be applied on dividends paid from the beginning of year 2017 onwards, said Sairio.

Citibank is entering the Nordic market, having done its own custody in Sweden since 2006. It hasn't yet won any mandates. Now the US bank is in the process of entering the Finnish and the Danish markets. Meanwhile, Swedbank has exited the sub-custody business.

FRANCE

UNWEIGHTED

RANK		Score
1	Société Générale Securities Services	6.43
2	BNP Paribas Securities Services	5.62
3	Deutsche Bank AG	5.29

WEIGHTED

RANK		Score
1	BNP Paribas Securities Services	5.58
2	Deutsche Bank AG	4.52
3	Société Générale Securities Services	3.57

Euroclear France migrated to T2S in wave three on September 12 2016, alongside its sister Belgium and Netherlands CSDs, as well as VP Lux (Luxembourg) and VP Securities (Denmark). The move follows a delay of six months to ensure a "safe and stable" migration.

Euroclear France said in February it had launched investor CSD services for German securities, following the launch of Wave 4 CSDs to the T2S platform on February 6.

As a result of the direct link, Euroclear France has established with Clearstream Banking Frankfurt, the German CSD, securities primarily issued by CBF are eligible for cross-CSD settlement on the ESES platform. Its clients can now benefit from DVP settlement with counterparties in CBF, or any CSD that is an investor CSD in CBF, as well as safekeeping and corporate actions processing for German securities.

"When CBF migrates to T2S, the T2S cross-border logic applies and the segregation needs by Euroclear France (in ESES) will affect CBF customers," Clearstream said in a statement to clients on January 20.

Mathias Bellier, global head of relationship management, banks and brokers, for Euronext markets France, Netherlands and Belgium: "2016 saw another increase of assets under custody for BNP Paribas Securities Services in France."

GERMANY

UNWEIGHTED

RANK		Score
1	BNP Paribas Securities Services	5.94
2=	Commerzbank	5.35
2=	Deutsche Bank AG	5.35

WEIGHTED

RANK		Score
1	Commerzbank	5.47
2	Deutsche Bank AG	5.42
3	BNP Paribas Securities Services	5.06

The Frankfurt Stock Exchange (FSE), operated by Deutsche Börse, is one of the world's largest trading centres for securities, and accounts for more than 85% of German trading turnover.

Clearstream Banking Frankfurt (CBF) is Germany's central securities depositary (CSD). Its corporate legal

> "Nasdaq announced in January this year that the pilot project in Estonia was a success, concluding that blockchain technology can be safely used"

THE CASE FO COMP

THOUGHT LEADERS

Rob Scott, head of custody and clearing at Commerzbank, explains how the bank's domestic roots shape the way it supports its corporate clients as they expand into new markets

COMMERZBANK

› CAN YOU SAY A LITTLE ABOUT YOUR IDENTITY AS A GERMAN BANK?

Both today and historically Commerzbank has focused its efforts on servicing German corporates, with an emphasis on small and mid-sized companies. This has made us an integral part of the German financial services landscape. Our participation in Germany's key financial services infrastructures, including Deutsche Börse Group and its Eurex and Clearstream business lines is evidence of these roots. Our evolution at the heart of Germany's financial sector has provided us with a deep resource of regulatory and operational expertise from which our domestic clients continue to benefit.

We offer a breadth of financial solutions to clients – from securities services, through cash management, to trade finance – and the range of capital markets products, including bond issuance, warrants, certificates and so on. Providing this end-to-end and integrated product suite gives us the opportunity to build familiarity with and a deep understanding of our clients' businesses that we feel is unrivalled. We feel that we know them better than anyone else and our solutions are more tailored and focused to their needs as a result.

Working in a client-centric way has become something of a truism in the industry in recent years. But there remains a significant difference between providers in terms of the longevity of their client relationships. Most of ours span more

> “An excellent example of how our client-centric model works in practice is our recent drive towards digitalising our business”

R CORE ETENCY

> We can offer customised multi-jurisdictional solutions tailored to a client's needs and markets

than five years; many span more than 25 years. Our highly experienced and dedicated custody client services team located in Frankfurt provides clients with personal contacts for account and settlement management, plus multi-lingual support. Unlike some other custodians, we believe in being local and ensuring a focused service in our home market.

› HOW FAR DO YOU SEE DIGITAL INNOVATION AS SUPPORTING THESE PRIORITIES?

An excellent example of how our client-centric model works in practice is our recent drive towards digitalising our business. We looked to enhance a range of digital tools and the client's interaction with our web portal, which enhances client service and interaction, provides near real-time information for example around positions, settlement status, valuations, corporate actions and reporting. This is an extension of the very high level of digitalised service already afforded in our retail/private client franchise. We see increasing demand from clients for the digitalisation of financial solutions.

In line with its 4.0 strategy, Commerzbank announced it will become an enterprise with 80% of its relevant processes digitalised by 2020. One of the pillars of the Commerzbank 4.0 transformation is the establishment of the "Digital Campus", in which agile, dedicated teams drive forward digitalisation projects and work to automate and optimise relevant everyday processes. Currently home to around 600 staff, the Campus is expected to host up to 1,000 employees by the end of the year and is tasked with digitalising 80% of relevant processes by 2020. This will achieve the sort of efficiency gains that clients have a right to expect from an effective digital architecture in their bank and their custody provider. Our main focus is on improving the existing customer experience.

These efforts are already bearing fruit, as the reports of our customers testify: innovation awards, leading rankings in custody surveys including, most recently, our win in the unweighted category in the Global Investor sub-custody awards this year (we also placed second in the weighted category).

› HOW DOES THIS CLIENT-CENTRIC DOMESTIC FOCUS PLAY WHEN SERVICING CLIENTS ABROAD?

Our focus on the German domestic market is made possible partly because of the central role played by Germany's economy in the Eurozone. This influence in Europe is matched by the driving force of German companies as they expand beyond Europe. In supporting their efforts to branch out into markets across the world, a key pillar of our approach is to partner with local custodians where we are not present, rather than establishing operations ourselves. In our custody business, we may be present in 58 markets around the world, but we are there purely because that's where our clients need us to be. We can offer customised multi-jurisdictional solutions tailored to a client's needs and markets, with tailored operational coverage and support from our local specialists.

To see the benefits of our approach it is worth considering the alternative model, popular among most of our competitors, of building a local servicing presence in multiple countries around the world. In practice, these banks will enter a new market through a couple of anchor mandates, which can sometimes lead to becoming unfocussed, seeking commercial local success over client solutions and innovation ultimately in the interests of benefit of the client .

In our case, by contrast, if a client wants to go into a new market where we are not already present, we will not set up a local subsidiary from which to service them. Instead, we will select a local agent that can demonstrate the level of competence and cultural fit that best suits the client in question.

Finding the best and most suitable local custodians is more efficient than establishing our own infrastructure in a country. The time and money we save is better spent fitting the servicing solution provided by our chosen partner with the needs of our client. And because we already have such a close grasp of our client's business, that shaping process works relatively quickly and smoothly. We can procure the best services – from account structures to collateralisation – by imparting all that knowledge to the local custodian.

WHAT ARE THE BENEFITS TO CLIENTS OF PRIORITISING AN INTEGRATED VIEW OF LIQUIDITY?

Clients may have securities holdings and activities around the world. Our job is to focus on the integration task, allowing the firm to, for example manage its liquidity across all of these locations, with comprehensive and transparent reporting in every case.

Pooling all of that information into a single source allows them an immediate, fully transparent overview of their entire liquidity. This makes them better informed and, as a result, better placed to make decisions quickly and effectively in order to optimise their collateral obligations. A margin requirement for a transaction in Europe, for example, can be met by perhaps optimising and mobilising assets in Hong Kong that the firm is long in. This saves the time and cost of going back into the market to find the required assets or liquidity to service the obligation in another time zone. A single central oversight facility allows the firm to use a time difference – between Hong Kong and London, say – to transfer them for use in one market while the other is closed.

Bringing disparate information to bear in this way can help to facilitate major transactions, too. One recent example was a US client involved in a capital raising transaction in the Nordic markets, including the conversion of a tranche of non-tradable shares to a tranche of tradable shares. In this case, some of the key and fundamental settlement aspects had been overlooked. We were able to present the knowledge that the lead manager and settlement agents could then apply. The result had a material impact on the speed, effectiveness and success at which the issue was placed.

CAN YOU SAY SOMETHING ABOUT WHY YOU HAVEN'T PURSUED THE TRADITIONAL OUTSOURCING MODEL WITH THE INTENSITY OF SOME OF YOUR COMPETITORS?

The cost-benefit of the widespread adoption of outsourcing in our industry is well documented. However, less time has been devoted to the possible drawbacks of handing-off client queries to these low cost jurisdictions.

The conventional outsourcing approach will invariably see the client handed-off to another part of the bank or service provider – to a colleague or provider who is, in effect, a stranger with little or no understanding of the client's wider business and history. Inevitably, outsourcing in this way means creating distinct silos in an organisation between which fast, effective communication is harder to achieve. In this way, the drive for profit and low servicing costs has driven a silo-based model that may compromise the quality of the client service offering.

We have pursued outsourcing with less vigour by comparison with many of our competitors. Instead, we have focused on maintaining client servicing teams that are based in the same country as our core clients. The result is that, in a typical case, a member of that team handles a given client query through to its resolution in the same language and with the same cultural understanding, reaching into the wider bank for a solution and returning with the answer himself or herself.

This makes the process more responsive since the team member understands the client's wider business and is in a position to shape the solution while it is being fashioned. It also makes it quicker since that team member can address additional questions that the process throws up without having to return to the client for guidance.

Both of these elements reduce the burden on the client and make it easier to interact in an efficient manner. In addition, quicker resolution carries with it material benefits for clients. If you need to decide whether to optimise and mobilse liquidity for example you typically don't have three days to wait for the information on which the choice will be based. Finally, a larger, deeper, and better skilled relationship management team is best placed to serve up easy-win solutions that the client may not have considered. For example, if a client is phoning multiple times a day with settlement enquiries, pretty soon we will suggest that we start sending out a full and comprehensive settlement report automatically at a time of the client's choosing, which fit around their schedule.

I think it is worth bearing all this in mind and the potential impacts to client engagement and servicing when discussions about the pros and cons of outsourcing take place. It may be the most salient trend in our sector in recent years: without exception, the large global firms have looked to shift core services into low cost jurisdictions, away from the markets in which most of their customers are based. Therefore, getting the balance right is the key to a successful business model and satisfied clients.

> "We have focused on maintaining client servicing teams that are based in the same country as our core clients"

status and its function as the German CSD has remained unaffected, i.e. German law continues to apply, particularly with regard to the safe custody business, whereby CBF is subject to supervision by the Federal Financial Supervisory Authority.

"There have been considerable efforts, in recent years to provide elements of standardisation and harmonisation across EU member states in respect of trading and post-trade activities," said Rob Scott, managing director and head of custody and collateral solutions at Commerzbank. "Regulation has been on-going but has provided transparency and a more consistent approach from many participants across the value chain."

T2S, a decade in the making, is in its final stages of roll-out with the significant volume now successfully introduced by Clearstream in recent weeks, said Scott. "The rollout in the German market is being carefully managed and executed. The introduction of Germany is significant, more than doubling all the settlement volume on the platform to date, taking overall levels to around 80% of all member markets."

The initiative helps deliver against the original promise to make cross-border settlement more efficient and with easier access. Scott says it is time to look at harmonisation at market level, for example to focus on the insolvency law across member states. "However, with the current political uncertainty, coupled with nationalistic tendencies emerging, there is currently considerable stress in the overall Capital Market Union (CMU) project."

Recent reports shows international cross-border business up around 2% year-to-date in terms of overall securities deposits but an increase of nearly 30% in terms of transaction volume. Domestic business declined by 8% for deposits and 4% in transactional volumes. Investment funds services show robust increases of 16% in securities deposits and 20% increase in transaction volume. Global securities financing continues to decline, showing a reduction of 6% year-to-date year-on-year. The market continues to show positive momentum, with net increases in assets under custody of 4% year-to-date compared to 2016.

"We are seeing a number of corporates now actively engaging in activities ranging from execution to security service provision as well as OTC clearing," said Scott. "We have seen a significant increase in client engagement from the corporates, often seeking an institutional-like client servicing model and solution as they look to expand and grow their business models."

GREECE

UNWEIGHTED

RANK		Score
1	BNP Paribas Securities Services	5.94
2	HSBC	5.51

WEIGHTED

RANK		Score
1	HSBC	6.41
2	BNP Paribas Securities Services	5.75

Clearing of shares, bonds and derivatives that are listed and traded in Athex takes place through the company AthexClear, the clearing house that was established by Athex in July 2010.

In the shares and bonds segments, AthexClear has established a CCP-like clearing model, as the concept of full CCP does not exist in the spot market and therefore the ultimate responsibility of the trade lies with the clearing members and not the clearing house. Effective February 16 2015, AthexClear started participating in the market as a CCP.

Post-2008, the Greek banking sector continues to face significant economic burden in terms of the high level of distressed loans stemming mainly from the fragile operating environment, according to Kelly Kakanaki, head of Greece at BNP Paribas Securities Services.

"The high level of non-performing loans undermine credit growth, holding back investment," said Kakanaki. "To deal with this, the authorities implemented already-legislated incentives and performance targets for banks to monitor their progress in reducing bad debt."

The huge public debt undercuts confidence in the Greek economy. Despite this, growth rebounded in H2 2016 and is projected to gain strength in 2017 and 2018 as structural reforms start to bear fruit.

Eurobank's full-year results for 2016 point to a recovery in the Greek banking sector. Fokion Karavias, CEO of Eurobank, said the last year was the "first profitable and capital accretive year for Eurobank since the eruption of the Greek sovereign crisis," boasting a new profit of €230m ($257m) compared to losses of €1.2bn in 2015.

Kakanaki added: "The conclusion of a policy review with creditors raises business and consumer confidence and the economic and political environment stabilises." Exports of services are underperforming because of "structural rigidities and capital controls."

HUNGARY

UNWEIGHTED

RANK		Score
1	BNP Paribas Securities Services	6.76
2	UniCredit	5.12
3	Citi	5.10
4	Raiffeisen Bank International	4.85

WEIGHTED

RANK		Score
1	BNP Paribas Securities Services	7.24
2	UniCredit	6.13
3	Citi	5.93
4	Raiffeisen Bank International	4.30

T2S and the related CSD system replacement have been the two major projects during 2016.

"Following the multiple reshaping of the system replacement project, the Budapest Stock Exchange (BSE) is the market for equities, corporate bonds, ETFs, government bonds and T-Bills," said Lívia Mészáros, head of Unicredit GSS Hungary. MTS Hungary is the secondary market for government bonds, treasury bills and corporate bonds.

Keler Central Depository (responsible for all traded securities) is planning to go live with the market infrastructure TCS BaNCS solution by July 3 2017 for T2S settlement.

The multi-asset class, multi-entity platform will enhance Hungarian post-trade processes with improved services to its depository participants, custodians and cash settlement banks, both in domestic and cross-border markets. Keler will also leverage the standard set of interfaces of TCS BaNCS for interacting with the T2S platform.

On February 6 2017, Hungary joined T2S in the fourth wave with the partial entry model, in order to ensure that all domestically-issued securities are available in T2S. However, Hungarian forints were not brought into the T2S platform from its start.

Mészáros said: "Due to the postponement of the implementation of Keler's new system, Keler operates in the T2S environment in BCP mode as Keler enriches and sends the euro RVP/DVP instructions manually to T2S via the T2S GUI user platform."

The operating model will be applied by Keler until BaNCS is implemented. The volume of T2S activity is currently very low in the market, according to Mészáros, as market participants are not fully utilising T2S services yet, due to the constraints of the BCP solution.

As a result of an almost two-year on-boarding procedure, CLS settlement in forints started on November 16, 2015. It has since been "running smoothly" and settlement members had the chance to join the forints CLS settlement in three waves. "CLS facilitates a low risk and efficient platform to settle FX transactions for the participants," added Mészáros.

ICELAND

UNWEIGHTED		
RANK		Score
1	Islandsbanki hf	4.62
WEIGHTED		
RANK		Score
1	Islandsbanki hf	5.50

Iceland has performed a remarkable recovery since its 'too big to bail out' banking crisis. Its economy has surged in recent years to the extent that the central bank had been raising interest rates to tackle inflation. This problem has now been tamed, largely through a stronger currency, so the central bank has reversed its policy and reducing rates, which now stand at 4.75%. Capital Economics predicts one final cut in August.

The capital controls in the Icelandic market have been lifted, effective March 14 2017. However, rules apply to inflow of foreign currency for investment entering Iceland after 4 June 2016, according to a report but RBC Investor & treasury Services, will affect new investment and reinvestment.

The following are covered: bonds and bills issued in ISK and electronically registered; domestic currency deposits resulting from new inflow, or reinvestment of a new inflow; unit share certificates of funds that invest in the above; equity of a company that is established for the purpose of investing, directly or indirectly in the above; loans granted to resident entities that are used for investment in the above for the benefit of the lender.

The registered owners of the above are subject to a special reserve requirement of 40%, where the investor needs to deposit 40% of the value of the inflow into a special

> As additional markets migrated to the new settlement platform, the Italian CSD, Monte Titoli, opened new links… to process cross-border transactions
>
> **Dario Locatelli, BNP Paribas**

non-interest-bearing account.

Nasdaq Iceland is part of Nasdaq OMX Nordic, which includes the exchanges in Copenhagen, Stockholm, Helsinki and Iceland.

IRELAND

UNWEIGHTED		
RANK		Score
1	BNP Paribas Securities Services	6.67

WEIGHTED		
RANK		Score
1	BNP Paribas Securities Services	5.73

Ireland, one of the EU countries most impacted by the financial crisis having paid for a crippling bail out of banks, is now booming. Unemployment is just 6% and it pays less on sovereign debt than the UK. It rebounded following budget cuts, restructuring its bank and economic reforms.

Ireland is among the dominant fund domiciles in the EU, second only to Luxemburg in terms of assets under administration. Its funds industry is world class and is a potential beneficiary of Brexit, especially if the UK loses its funds passport.

The Irish central bank authorises fund administrators located within the country's boarders and requires them to follow its specific operating rules. Approaching 50 fund administrators service more than €4trn ($4.5trn) of assets. State Street, BNY Mellon, Northern Trust, JP Morgan, Citi and Brown Brothers Harriman all have administration businesses in Ireland.

The Minister for Finance, Michael Noonan, announced in May 2017 an end of end stamp duty on the purchase of shares in Irish companies listed on the ISE's Enterprise Securities Market (ESM). The exemption from 1% stamp duty comes into effect from 5 June 2017 and will reduce the cost for pension funds and individuals of investing in Irish growth companies.

"This is about making it easier for Irish businesses to scale-up" said Deirdre Somers, ISE CEO. "This is great news for Ireland and Irish companies looking to raise equity finance on the Enterprise Securities Market… This measure will benefit Irish companies looking to attract much needed Irish and international investment.

ITALY

UNWEIGHTED		
RANK		Score
1	Société Générale Securities Services	5.91
2	BNP Paribas Securities Services	5.65
3	Intesa San Paolo	5.21
4	Deutsche Bank AG	4.29

WEIGHTED		
RANK		Score
1	Société Générale Securities Services	5.95
2	BNP Paribas Securities Services	5.31
3	Intesa San Paolo	4.64
4	Deutsche Bank AG	3.62

Italy migrated to T2S in August 2015 and the process is generally considered a success by the market participants. "The market worked on implementing what had been left out from the migration to T2S," said Dario Locatelli, head of clearing, settlement and custody business at BNP Paribas Securities Services Italy.

"As additional markets migrated to the new settlement platform, the Italian CSD, Monte Titoli, opened new links with other central depositaries to process cross-border transactions."

Euroclear France announced on April 5 2017 that it had now established a direct link with Monte Titoli for Italian debt securities. The new partnership provides participants with DVP settlement with Monte Titoli counterparties, safekeeping and corporate actions for processing Italian debt securities and auto-collateralisation and tri-party collateral management with a central bank or payment bank for Italian debt securities.

BNY Mellon also revealed plans in December 2016 to migrate clients' assets to direct accounts with Monte Titoli using its connection to T2S, settling transactions in listed securities with the Italian CSD.

In addition, the Italian market prepared for the introduction of the "rolling exercise" model for rights issue with dilutive effect. Following successful testing, this was introduced in December 2016.

"During the course of the year, the Italian market community governance was reformed," said Locatelli. "The new governance, through the Post Trade Participant Committee (PTPC), was created, focusing on two key areas – overseeing local market changes and defining the position of the Italian market on European matters."

LATVIA

UNWEIGHTED		
RANK		Score
1	SEB	5.39

WEIGHTED		
RANK		Score
1	SEB	6.07

There are no physical securities in the Latvian market. "The market is record date-based and there are no cash of FX or other restrictions for foreigners," said Gatis Simsons, head of custody at SEB Latvia. "Foreign financial institutions must have a local bank as a clearing agent."

Off-exchange trades settle on a Real Time Gross Settlement (RTGS) basis at T+2. The region also has no upcoming changes it needs to prepare for, according to Simsons, and it has no plans to introduce a once-mooted financial transaction tax.

The new legal entity Nasdaq CSD, which will be a merger of CSDs in Latvia, Lithuania and Estonia, will have its headquarters in Latvia, with branches in Lithuania and Estonia.

LITHUANIA

UNWEIGHTED		
RANK		Score
1	SEB	5.60

WEIGHTED		
RANK		Score
1	SEB	6.30

Lithuania is the largest out of the three Baltics states by market capitalisation, boasting efficient procedures for settlements and the required custody infrastructure, said Darius Semenas, business manager for SEB Lithuania's custody services.

The Central Securities Depository of Lithuania (CSDL) acts as the depositary and central registrar for equities and debt instruments.

Together with Nasdaq, the Vilnius Stock Exchange is part of Nasdaq Baltic's joint offering of Nasdaq's exchanges in Tallinn, Riga, and Vilnius, and Nasdaq Baltic CSDs.

The Bank of Lithuania is responsible for the supervision of markets in financial instruments and other functions in accordance with the law on markets in financial instruments. It operates as the payment system for settlements in euros.

"The Lithuanian market is on the edge of significant changes with joining the T2S fifth wave on September 18," said Semenas. "After migration, custody clients would be able to benefit from extended T2S settlement

functionalities, with the possibility to open nominee account at a CSD level and other enhancements."

LUXEMBOURG

UNWEIGHTED		
RANK		Score
1	Société Générale Securities Services	6.06

WEIGHTED		
RANK		Score
1	Société Générale Securities Services	4.62

The Luxembourg Stock Exchange operates two markets: the Bourse de Luxembourg (BdL) and the Euro MTF market, which is a multilateral trading facility. The trading and surveillance rules, regulations and trading mechanisms are identical. The market harmonised to the T+2 settlement cycle on October 6 2014.

Luxembourg is the largest fund jurisdiction and fund administration centre in the EU. In February 2017 it announced it accounted for €3.7trn ($4.1trn) assets under management at year end, a new record for the market.

"2016 was a challenging year in many respects," said Denise Voss, chair of Alfi. "First the UK vote to exit the EU has brought uncertainty to cross-border distribution in Europe, with the possible loss of both fund and fund manager passports for UK asset managers." Second, she noted the threat of US protectionism with the election of Donald Trump.

"However, these challenges can bring opportunities. UK asset managers, and those asset managers from other non-EU countries who currently use the UK to access investors in Europe will, once the UK

leaves Europe, have to domicile their funds in an EU member country."

She noted that M&G has already sought permission from the Luxembourg authorities to launch a new Ucits fund. "We understand other firms will make public similar plans in the next weeks and months."

NETHERLANDS

UNWEIGHTED

RANK		Score
1	BNP Paribas Securities Services	5.33
2	Deutsche Bank AG	5.04

WEIGHTED

RANK		Score
1	BNP Paribas Securities Services	5.46
2	Deutsche Bank AG	5.00

The Netherlands grew by 0.4% in Q1 2017, according to official statistics, notching up its twelfth straight quarter of growth and a growth rate for the last 12 months of 3.4%. Government debt was €32bn ($35.8bn) lower than projected at the end of 2016. Its debt-to-GDP ratio is 62.3%, just over a couple of percentage points above the euroarea limit, and the government is running a budget surplus, of €2.9bn last year.

The Netherlands moved to Target2 Securities (T2S) in the third wave. Transactions on the Euroclear Settlement of Euronext-zone Securities (ESES) markets are settled with a rolling settlement on T+2 basis. As of September 12 2016, the ESES settlement system migrated to T2S. The T2S settlement system is composed of two different settlement cycles: the night settlement cycle (NTS) and the real settlement cycle (RTS).

NORWAY

UNWEIGHTED

RANK		Score
1	SEB	5.46
2	Nordea Bank	5.08

WEIGHTED

RANK		Score
1	SEB	5.76
2	Nordea Bank	5.30

Oslo Børs is the only regulated Stock Exchange in Norway. It has a strategic partnership agreement to co-operate across their equities, fixed income and derivatives markets with a view to improving market efficiency and liquidity.

London Stock Exchange Group provides Oslo Børs with Millennium for its equities and fixed income markets and the Sola trading platform, under licence from TMX Group, for its derivatives markets.

Oslo Børs participants are registered stockbrokers active in Norway and approved by the Stock Exchange Committee, notes RBC Investor & Treasury Serices in a report. All equities traded at Oslo Børs are subject to mandatory clearing at a CCP, members can choose between SIX x-clear and LCH Clearnet.

Merkur Market was established 13 January 2016. It offers listing and electronic trading of shares and equity certificates for both small and large companies as a supplement to the regulated Oslo Børs markets. It is available to companies that are not public limited companies.

POLAND

UNWEIGHTED

RANK		Score
1	BNP Paribas Securities Services	6.52
2	Société Générale Securities Services	5.84
3	ING	5.69
4	UniCredit	5.07
5	Citi	4.87

WEIGHTED

RANK		Score
1	ING	6.31
2	BNP Paribas Securities Services	5.94
3	Citi	5.92
4	UniCredit	5.17
5	Société Générale Securities Services	5.12

2016 represents the first full year of Law and Justice (PiS) governance resulting in the implementation of various initiatives declared before elections.

According to Marek Rudnik, head of sales and relationship management at Societe Generale Securities Services Poland, the most significant measures include a bank tax and the "re-Polandisation" of the banking sector (with repurchase of Pekao SA from UniCredit by the Polish State and Polish Fund for Development), as well as coal energy promotion.

While 2015 was tough for the Polish capital markets, 2016 and 2017 (so far) has seen a boom in share prices and turnover growth. Rudnik stressed that the fixed income market with Bondspot platform has been growing substantially due to both corporate and mortgage bonds, following the new Act on Mortgage Banks.

One of the main changes affecting the securities services business in Poland last year were Ucits V and AIFM, which were finally introduced into local regulations in June 2016.

"They imposed a number of new duties on local custodian banks performing depository functions for domestic investment funds," said Mariusz Piekos, director of foreign clients, UniCredit GSS Poland. "As a consequence, local custodians had to amend their procedures and agreements with domestic investment funds."

"The Polish Custodian Banks Council members are still finalising the automatic pre-matching process with the first banks ready for implementation for OTC bonds transactions," said Rudnik.

The Polish CSD started preparation for CSDR implementation by announcing changes to its IT and technical systems for the next couple of years. These changes will be made in planned implementation windows, one in April (spring window) and October (autumn window).

The first set of changes was successfully implemented on April 24 2017 and included the ISO 20022 implementation and standardisation of corporate actions. Other changes involved the volume of debt securities, which are defined by face value as opposed to units, and the introduction of a clearing field to the settlement instructions.

One of the biggest challenges that the Polish market currently faces, according to Rudnik, is the implementation of Mifid II with additional local amendments, which can completely change the situation for investment firms and asset managers.

April also saw changes to the settlement process of repo/buy-sell-back transaction and also to the KDPW accounts numbering system.

"The Polish Ministry of Finance has announced proposed changes to several domestic laws implementing the Mifid II directive," said Piekos. "The amended laws are subject to a public consultation process and the expected implementation date is January 3 2018."

The partial transition of pension funds into standard investment funds is also another change to look out for, with another 25% of assets taken over by the Demographic State Fund.

Further legal changes that are being discussed in the market include the obligatory dematerialisation of physical shares and the introduction of a central database of accounts.

PORTUGAL

UNWEIGHTED

RANK		Score
1	BNP Paribas Securities Services	5.22

WEIGHTED

RANK		Score
1	BNP Paribas Securities Services	5.16

Portugal has rebounded remarkably since the dark days of the financial crisis, when it was ingloriously grouped one of the PIIGS and then required an IMF bailout in 2011. In mid-May the EU formally announced it was no longer in breach of EU budget rules. Its deficit stable at a just 2% – it's lowest in 40 years – and comfortably below the 3% euroarea threshold but its total debt remains the second largest as a proportion of GDP in the EU.

Portugal's finance ministry welcomed the news by saying "confidence in the Portuguese economy is now spreading to international institutions".

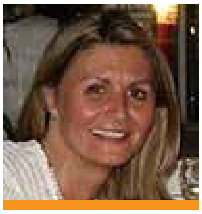
The European commission has recommended it loses its so-called excessive deficit procedures status. This should further fuel growth that is predicted at 1.8% for 2017 and

DNB

VOLATILITY SPURS VOLUME

DNB traders **Karin Aronsen** and **Dag Rudilokken** say there is a growing role for mutual funds in Norway's securities lending market but challenges are posed by EU regulatory change

DAG RUDILOKKEN
Trader



KARIN ARONSEN
Trader

WHAT HAS BEEN BEHIND THE GROWTH IN NORWEGIAN SECURITIES LENDING VOLUMES?

DAG RUDILOKKEN: In the last two years the Oslo Stock Exchange has launched two influential new indices. The mid-cap index was launched in August 2015 and the seafood index in April 2016. Together, the two new indices represent nearly a third of the total market cap of the Oslo Stock Exchange.

Both have proved popular with foreign clients, which have always been important and currently own 37% of the total Norwegian equities market. They are increasingly important as lenders and borrowers of securities as well, with a tendency to borrow a wider range of names than domestic participants. Domestic clients tend to focus on particular companies, lately often in the seafood and oil sector.

KARIN ARONSEN: This growth in demand has been shadowed by an increase in supply, facilitated by rule changes for mutual funds. In particular, counterparty lending limits have increased from 10% to 50% of a fund's total portfolio, following an earlier shift from 5% to 10%.

This has considerably reduced the workload for mutual funds. As funds realise that they can engage in lending more cost efficiently, an increasing number are entering the market. Growth in supply benefits both lenders and borrowers – as more funds lend, more borrowers are attracted to the market, which, in turn, incentivises funds to lend more.

The rule change for mutual funds, which was long-awaited and had been delayed, comes as part of the amendment of Norway's Securities Funds Act. Funds will now be able to utilise up to 50% of their market value using efficient portfolio management techniques, including securities lending and repo.

TO WHAT EXTENT IS MARKET VOLATILITY ATTRACTING PARTICIPANTS?

RUDILOKKEN: It is attracting them significantly. The sustained market volatility across Nordic markets has cemented the appeal of the new indices. We have seen a lot of specials, even among traditional GC names, for some time. In large part this has been due to the turbulence in energy markets, following the drop in the oil price. Of the 25 stocks comprising the main OBX index on the Oslo Stock Exchange, typically ten are connected to oil.

As long as volatility continues to provide opportunities there will be extra revenue available to both borrowers and lenders. Lenders, in particular, are benefitting from the higher prices available on the two new indices. The prospect of higher fees has helped attract mutual funds into the market in larger numbers, adding supply.

WHAT IMPACT IS REGULATORY CHANGE HAVING IN NORWAY?

RUDILOKKEN: A key focus in the coming years will be the impact of EU regulations on the economics of securities lending, notably the treatment of margin, haircuts and the costs of holding collateral.

Currently, the increased costs associated with these regulations, such as increasing capital requirements, have not yet been matched by changes in the size of margins or haircuts. The industry needs to confront the question of which entities will absorb these increased costs. Will it be the borrowers, through higher margins? Will it be the lenders, through lower revenues? Or, a combination? Unless fees for low-margin GC names move it could soon become uneconomical for providers. It will be interesting to see who will be the first to put their head above the parapet and shift their pricing.

ARONSEN: The quality of providers' back offices will come under increasing scrutiny from clients in the coming years. Assuming Norway follows the EU's regulatory lead – as it has done so far – fees for settlement failure are likely to be introduced. This would increase the benefit of working with a good counterparty. The ability to provide a strong post-trade service will become, increasingly, a competitive advantage. For local clients the benefits of a simple integrated solution – encompassing elements such as reporting – are especially useful. They, particularly, will seek quality in this area.

lead to the prime minister demanding its debt to be upgraded by credit rating agencies from its junk status.

ROMANIA

UNWEIGHTED

RANK		Score
1	Société Générale Securities Services	6.08
2	Citi	5.69

WEIGHTED

RANK		Score
1	Citi	6.87
2	Société Générale Securities Services	4.86

Starting April 1 2017, a new law regarding the issues of financial instruments and market operations entered into force.

Viviana Traistaru, relationship manager at UniCredit GSS Romania, said: "The new law transposes into the national legislation the provisions of several EU directives on areas such as transparency requirements in relation to the information about issuers whose securities are admitted to trading on a regulated market, prospectus to be published when securities are offered to the public or admitted to trading."

Also starting on April 1, a new law on undertakings for collective investment in transferable securities and investment management companies become applicable. The new law transposes into the national legislation the provisions of the EU directives on the coordination of laws, regulations and administrative provisions relating to Ucits funds as regards depository functions, remuneration policies and sanctions.

Beginning February 1 this year, the Romanian Central Depository (RCD) aligned the Romanian practise related to corporate actions with European standards. The CSD code of rules was amended accordingly.

The Bucharest Stock Exchange (BSE) announced in June 2016 that it had concluded a coordination agreement with Sibiu Stock Exchange (Sibex), which paves the way for the two Romanian bourses to merge. The agreement will allow the implementation of critical elements for the process, including the evaluation phase of the companies.

There is a new code of corporate governance and dividends are now paid through a centralised system managed by the central depository. "There are continued efforts to promote the Romanian market to an emerging market from a frontier market," said Claudia Inoescu, director of BRD's securities division.

Further forthcoming developments include: a fiscal stimulus for listing to attract new issuers on the market and improve liquidity; the BSE's plan to change the structure of trading fees; the implementation of a CCP; reducing the section one's dimension; and improving the lending and borrowing services.

One of FSA's objectives for 2017 is to evaluate the Central Depository System RoClear from the perspective of RSCB-CESR Recommendations within the context of a T2S platform, according to Traistaru.

FSA will also issue a draft regulation with the aim of improving the registry function of the RCD and will identify capital market entities interested in establishing a CCP in a working group.

> "There are continued efforts to promote the Romanian market to an emerging market from a frontier market"
>
> **Claudia Inoescu, BRD**

RUSSIA

UNWEIGHTED

RANK		Score
1	Société Générale Securities Services	6.13
2	Citi	5.16

WEIGHTED

RANK		Score
1	Citi	6.16
2	Société Générale Securities Services	4.31

The Russian CSD, National Settlement Depositary (NSD), successfully rolled-out electronic pre-matching solution in 2016.

It is supported with a hold & release facility, allowing participants to run the fully-automated submission of instructions to NSD and suspend/release necessary instructions for settlement via early submission for pre-matching even in the case of insufficient assets.

As a result, Societe Generale Securities Services (SGSS) Russia has fully automated trade settlement lifecycle reducing the manual operation workload, according to Mikhail Bratanov, head of SGSS in Russia and CIS.

Recently, NSD officially announced the launch of the settlement platform for local investment funds subscription and redemption. Bratanov said: "The new system will enable NSD clients to get access to opera-

tions with mutual funds of the asset management companies connected to it."

The first phase of this project being implemented now will offer a unified technological platform to market participants operating via the nominee holder accounts at NSD.

On July 1 2016, the corporate actions reform fully came into force, bringing Russian procedures to international standards. The reform introduced the following: changes in the procedure for preparing lists of securities owners; a cascade approach towards exercising securities holders' rights in the course of corporate actions in a centralised manner through securities record-keeping institutions; and new methods of participation in general meetings of securities holders (such as e-proxy voting).

Last year was marked by the introduction of the new legislation aimed to reframe and renovate the legal basis of custody activities in the Russian market, which previously had remained unchanged for 20 years, according to Yuliya Umnova, head of relationship management and product development at UniCredit GSS Russia.

The new legislation introduced specific requirements, effective April 5 2017, in the following aspects of the custody business: a new approach to unified custody records and documents keeping system; requirements for protection and custody record keeping procedures; BCP/DRP and documents' storage; location of the technical means for processing and storage of custody records; and maintenance of backup storage of information.

"In line with the central bank's intention to draw a greater focus on the regulations governing the activities of Russian professional market participants, self-regulating organisations on the securities market will be assigned with the additional control function over Russian custodians, brokers and registrars," Umnova explained. "Such control will be enacted in accordance with the new basic standards to be elaborated on the basis of the new custodians' regulations."

The Russian payment system has also seen major changes in terms of its functionality, which started this year. Now each amount larger than RUB100m ($1.77m) is mandatorily sent via the real time gross settlement system (BESP) that is expected to result in better STP, quicker processing time and improvement in liquidity management, Umnova said.

Deutsche Bank decided to pull the plug on its custody business in Russia in November 2015. Consequentially Societe Generale Securities Services said it has been successful in winning "all the major RFPs," according to Bratanov. "As a result we have significantly expanded out international client base increasing the market share."

SERBIA

UNWEIGHTED

RANK		Score
1	Société Générale Securities Services	6.26
2	UniCredit	5.26

WEIGHTED

RANK		Score
1	UniCredit	6.31
2	Société Générale Securities Services	4.20

Supervision of financial markets and monetary policy is carried out by the National Bank of Serbia (NBS. The Republic of Serbia Securities Commission safeguards the orderly functioning of capital markets.

Belgrade Stock Exchange (BELEX) is a self-regulating organisation supervised by the Securities Commission and is the centre of the Serbian capital market. The CSD is a closed joint-stock legal entity, fully owned by Republic of Serbia. It is the only CSD, registrar and clearing house in Serbia.

"The Securities and Exchange Commission of Serbia (SEC) has adopted a regulation on capital requirements and liquidity management for brokerage firms," said Stevo Delic, senior relationship management at UniCredit GSS Serbia.

This regulation determines factors including the minimum requirements for a broker's liquidity risk management, reporting requirements and timelines, and minimum permissible liquidity levels.

The NBS has adopted new regulations introducing Basel III standards to the Serbian banking market, in line

with a strategy for the implementation of these standards. The regulations come into force on June 30 2017.

As of December 12 2016, Belex has become a fully active member of the SEE Link. The SEE Link platform was launched by Bulgarian, Croatian and Macedonian bourses with the purpose of creating a regional infrastructure for securities trading, which are listed on their respective markets. Currently there are 27 brokerages licensed to trade via SEE link and seven members of Belex, according to Delic, are in the process of obtaining licenses for the platform.

As of October 21 2016, Belex has introduced new types of special orders, said Delic. These are orders with hidden total quantity (Iceberg), all-or-none (fill or kill, FOK) and immediate or cancel (IOC).

An Iceberg order can be placed as an order limit whose total quantity is not visited at the main board of Belefix and at the same time has visible quantities that must be placed within the order. "Visible quantities have to be equal to or less than the total non-visible quantities," explained Delic. "They can only be used in all trading methods and in all trading phases."

An FOK order can only be used if it is possible to match it completely with the order of a counterparty and only when using the continuous trading method and only in the phase of continuous trading.

Finally, an IOC order can be posted as a limit or as a market order that will be matched immediately with the order of a counterparty, partly or in total. It can be used only when using the continuous trading method and only in the phase of continuous trading.

SLOVAKIA

UNWEIGHTED

RANK		Score
1	Citi	5.34
2	UniCredit	5.23

WEIGHTED

RANK		Score
1	Citi	5.85
2	UniCredit	5.11

Changes to regulation, both adopted in 2016 and under preparation, are focused on the transposition of EU directives (CSDR, EMIR and Mifid II) into local legislation.

Parliament also passed the Income Tax Act Amendment, effective from January 2017, introducing a withholding tax on dividends generated from 2017 onwards, if paid to individuals (7% or 35%) or to legal entities residing in off-shore countries (35%).

T2S was successfully completed in February 2017. Slovak CSD-CDCP modified its information system and implemented ISO 20022. "With the focus on further harmonisation, T2S remains a hot topic," said Zuzana Milanová,'s head of UniCredit GSS Slovakia.

"Furthermore, CDCP readies the documentation and improves the technical standards so as to be authorised under CSDR."

T2S positively impacted trades of government bonds and Debt and Management Liquidity Agency (ARDAL) as a counterparty on both the primary market and the secondary market. Settlement method changed from non-DVP to DVP.

Milanová added: "With the aim to further boost liquidity, Ardal plans to implement market making on the secondary market for government bonds. Trading will take place in the new MTS, starting January 2018."

Slovakia's second CSD, NCDCP, commenced operations in June 2016. It became an active member of CDCP and established a one-way link to CDCP. They have four members and hence may begin clearing and settlement operations. NCDCP migration to T2S is planned for October, after the stabilisation stage of the fifth wave.

SLOVENIA

UNWEIGHTED

RANK		Score
1	Société Générale Securities Services	5.70
2	UniCredit	5.14

WEIGHTED

RANK		Score
1	UniCredit	6.02
2	Société Générale Securities Services	4.11

Slovenia migrated to T2S in the fourth wave. Vanda Mocnik-Kohek, senior relationship manager, UniCredit GSS Slovenia, said: "The layered model has been used for connection with T2S due to the prevailing segregated securities account structure."

The ISO 15022 Swift standard has been used for communication. New Swift standard ISO 20022 has been used only between KDD and T2S. New matching and settlement standards, which also include changes required for T2S, were issued in April 2015.

The new corporate action process has been implemented with T2S. The CAs have been executed through the KDD and its members in line with international CAJWG/CASG standards. Important days for execution of the CA, include also Ex-New – date, which was not a market practice before T2S migration.

Since a changeof ownership in Ljubljana Stock Exchange (LjSE) in 2016, several measures have been accepted to increase trading, including the LjSE joining the SEE Link.

New AML legislation, effective November 2016, set additional requirements for clients, said Mocnik-Kohek, but a new classification of countries according to the AML risk, published at the end of February 2017, improved the classification of Luxembourg, Singapore and Switzerland to a "simplified procedure and significantly eased the documentation requirements for clients from these countries".

The Slovenian CSD KDD already started with the implementation of CSDR. They are working on the first step of implementation, which includes licences and links. The second step, which imposes penalties for on-market and OTC trades, buy-in process and calculations of penalties, is expected 2018-19.

SPAIN

UNWEIGHTED

RANK		Score
1	BNP Paribas Securities Services	5.91
2	Société Générale Securities Services	5.82
3	Deutsche Bank AG	5.56
4	BBVA	5.02

WEIGHTED

RANK		Score
1	BBVA	5.67
2	Deutsche Bank AG	5.61
3	BNP Paribas Securities Services	5.18
4	Société Générale Securities Services	4.72

The first phrase of the Spanish reform for settlement, clearing and registry went live at the end of April 2016 and was implemented in May 2016, preparing the environment for T2S, which is due to go-live in the autumn. "All attention is now focused on the preparation for T2S Wave 5 in September," said Soledad Lecube, head of BNP Paribas Securities Services Spain.

"We have been very focused on this migration these last months," said Alexis Thompson, head of Global Securities Services at BBVA. "Spanish reform is one of the best cases of harmonisation in the post-trade landscape, together with a very good example of the T2S role as catalyst of harmonisation in Europe. However, it has implied and it is implying a tremendous effort for the Spanish market infrastructure."

Fixed income will move onto the same reformed T2S settlement platform as equities, uniting the settlement processes.

The May 2016 reform meant an important project of changes to its systems and procedures for equities, according to Sally Matthews, relationship manager at Societe Generale Securities Services Madrid. "Since its go live last year, successful for the market, we have moved our focus to the preparation for T2S, for which SGSS Madrid will be an Indirect Participant, accessing T2S via Iberclear."

Added Thompson: "The upcoming European regulation and initiatives such as T2S and the changes in the Spanish securities market will foster an increasingly competitive scenario in which there will be changes in the roles and business models of custodian and CSDs."

BBVA sees the focus on value-added services such as corporate actions and tax reclaim services will be "the name of the game" in the T2S environment.

SWEDEN

UNWEIGHTED

RANK		Score
1	SEB	5.55
2	Nordea Bank	5.20

WEIGHTED

RANK		Score
1	SEB	5.83
2	Nordea Bank	5.40

During 2016, several measures were taken by the local Swedish CSD Euroclear Sweden. It implemented a penalty of SEK50,000 ($5,748) on March 1 2016 for clearing members who violate the Euroclear Sweden general terms and conditions for account operations and clearing regarding the expected net payment amount as settlement headroom.

The measure was decided in order to "improve settlement performance for fixed income securities," according to Catharina Buresten, head of SEB custody Sweden.

The next step in terms of on-going efforts is to improve the settlement ratio, this time for CCP transactions. Euroclear Sweden has started to send requests for explanation on failing trades to clearing members applicable when the Swedish market has a settlement ratio for a specific day for CCP cleared transactions below 90% of settlement value and the total value of fails in the Swedish market is above SEK2bn, Buresten explained.

Euroclear Sweden then gathers the information received by participants and sends a compiled report of market fails to the regulator.

In late 2015, Euroclear Sweden announced it would implement a new CSDR-compliant CSD platform. The implementation of the new system, EuroclearSafe, was tentatively planned to take place in November 2018, but in December 2016, Euroclear Sweden took the decision to prioritise implementing changes related to CSDR rather than the platform replacement.

"Accordingly, a CSDR-compliant version of the VPC system will be launched first with target date end- 2017," said Buresten. The EuroclearSafe project has not been closed, but deployment has been postponed and priority will be given to the VPC re-build.

SWITZERLAND

UNWEIGHTED

RANK		Score
1	BNP Paribas Securities Services	6.51
2	SIX Securities Services	5.91
3	UBS AG	5.37
4	Credit Suisse	5.19

WEIGHTED

RANK		Score
1	Credit Suisse	5.75
2	SIX Securities Services	5.58
3	UBS AG	5.53
4	BNP Paribas Securities Services	5.09

In April the Swiss Financial Market Supervisory Authority (Finma) issued guidance on the Financial Market Infrastructures Act: reporting requirements / trade repositories. It provided information about the authorisation of a Swiss trade repository and the recognition of a foreign trade repository.

Their recognition and authorisation means that Swiss market participants will now be subject to a phased-in entry into force of derivatives transactions reporting requirements by notifying a trade repository.

Finma says it has a "differentiated approach" to supervision and regulation, where the intensity of supervision by Finma is determined by the size and risk profile of each institution.

Thomas Bauer, chair of Finma's board of directors, said: "Finma focuses on the essentials and, wherever possible, gives supervised institutions flexibility and responsibility when implementing principle-based regulation".

He emphasised that Finma has a highly differentiated supervisory approach and has established itself as an efficient and lean authority. Bauer wants to see increased efficiency so that resources are freed up "to deal with newly emerging issues" and specifically mentioned cyber attacks and the risks inherent in the outsourcing of operational activities by supervised institutions.

TURKEY

UNWEIGHTED

RANK		Score
1	BNP Paribas Securities Services	6.72
2	Citi	5.33
3	Deutsche Bank AG	5.30

WEIGHTED

RANK		Score
1	BNP Paribas Securities Services	6.93
2	Citi	6.36
3	Deutsche Bank AG	5.62

Turkish capital markets infrastructure projects are still on track. "Albeit the unfortunate local and regional politi-

> **"**Market authorities continued implementing Bistech systems developed in partnership with Nasdaq OMX**"**
>
> **Ertunc Gurson, TEB Securities Services**

cal, geopolitical and military events that have shaped 2016 and the momentum continues in 2017," said Ertunc Gurson, head of TEB Securities Services, a joint venture between BNP Paribas and TEB.

2016 started off with the renewal of Temporary Article 67 of the Income Tax Law (related to the taxation of incomes and revenues from securities) until December 31 2020.

"Market authorities continued implementing Bistech systems developed in partnership with Nasdaq OMX," said Gurson.

Some projects including Takasbank becoming the CCP in Borsa Istanbul (BIST) equity market and Bistech implementing BIS VIOP have been postponed to mid-2017 from 2016. Meanwhile the changes in the trading platform of BIST have been completed in three phrases.

Takasbank applied to Esma to become a compliant CCP for BIST Futures and Options Market. The local CSD, the Central Registry Agency, implemented the Public Disclosure Platform 4.0 Project that brought its platform technology up to par with global standards, going live on June 11 2016.

Gurson added: "The introduction of Turkish Wealth Fund in August 2016, and initiation of mandatory pension savings in November 2016, plus the new BIST money market are post-July 2015 examples of the government's attempts to rejuvenate the capital markets."

UNITED KINGDOM

UNWEIGHTED

RANK		Score
1	BNP Paribas Securities Services	6.22
2	HSBC	5.31

WEIGHTED

RANK		Score
1	HSBC	6.00
2	BNP Paribas Securities Services	5.59

The United Kingdom has arguably the most compete ecosystem of financial services in the world. The extent to which this is impacted by the Brexit vote, to leave the EU, is unknown by the consensus view is that there will be a very limited effect.

While the City appears impervious, the same cannot be said for the currency. Sterling depreciated from above $1.45 to below $1.25 in the months after the referendum, although it has since partically recovered to around $1.30.

Despite Brexit, it is expected that all EU legislation currently in train to be implemented in full – not least because it may effect whether the United Kingdom can retain its funds passport. Mifid II entered into force on 2 July 2014 and had to be transposed into national law by 3 July 2016. It is now due to apply from 3 January 2018 (previously 3 January 2017).

Market capitalisation on the dominant exchange, the London Stock Exchange (LSE), is close to £4trn ($5.1trn) and it attracts listings from across the world. It is not part of Target2 Securities T2S. The LSE Group had attempted to merge with Deutsch Borse, for the third time in 17 years, but the EU competition commissioner blocked the move as it would have created a "de facto" monopoly in fixed income markets.

The UK faces another election, just two years after the last one, on June 8 2017. The political discourse remains focussed on the fallout from the Brexit vote and the Conservatives are expected to be returned to office with a larger mandate.

London is also a major fintech hub, centred around the so-called Silicon Roundabout. The UK market is regulated by the Financial Conduct Authority.

UKRAINE

UNWEIGHTED

RANK		Score
1	Citi	5.20

WEIGHTED

RANK		Score
1	Citi	6.00

In the second half of 2017 Ukraine plans to return to foreign capital markets, as part of a plan to replace IMF funding and other international organisations.

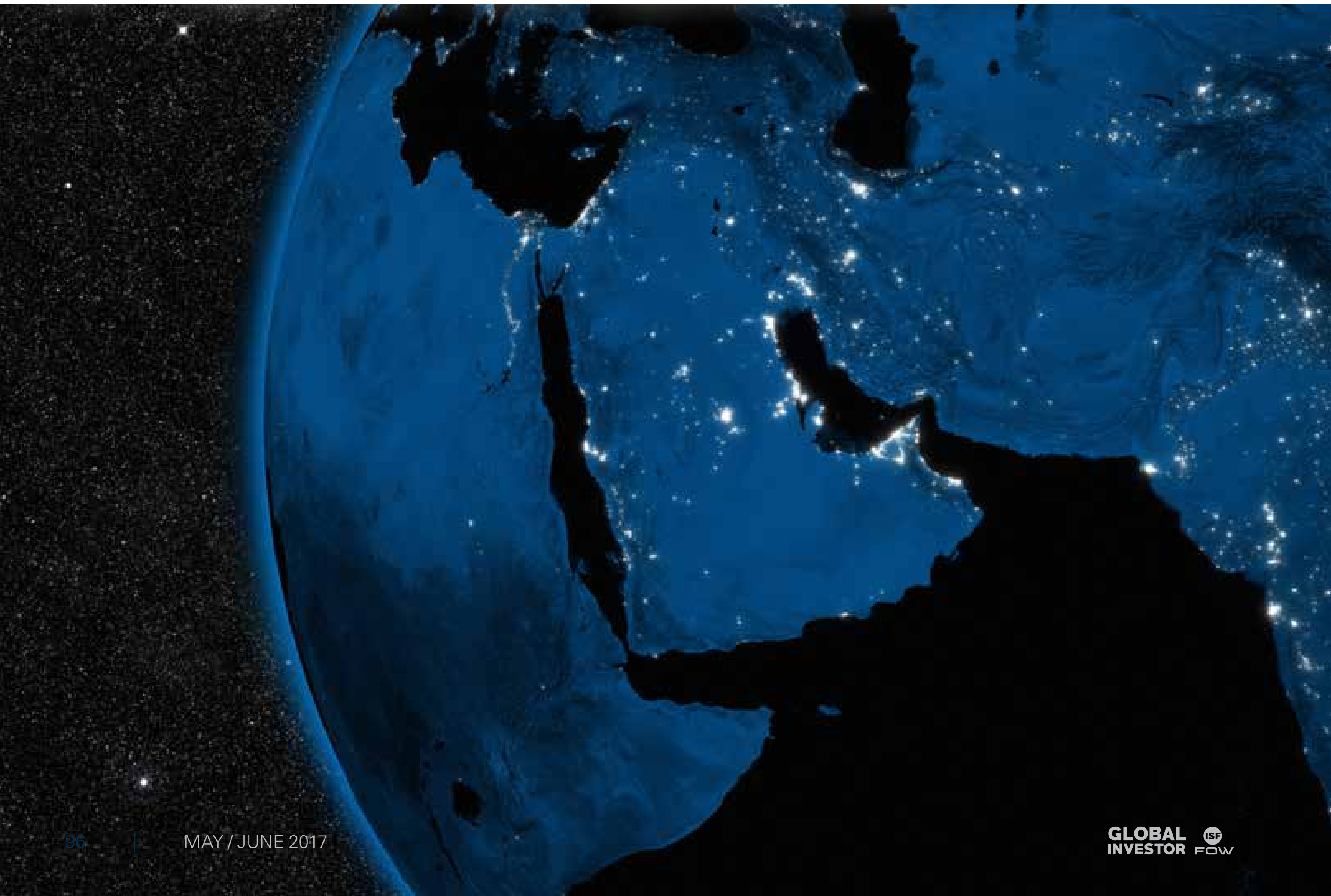
"The program [with the IMF] is coming to an end in 2019, and we need to be self-sufficient and have the opportunity to enter foreign markets. We should start this year," he told Interfax, the Ukrainian news agency. "We plan to enter the markets this year, in the second half of this year," he added.

The National Bank of Ukraine (NBU) said in a statement last November that the need for financial sector reform is a "principal" requirememt. "By definition, [reforms] cannot be easy and painless," NBU Governor Valeriya Gontareva said. "We see how difficult it is for our parliament to pass crucial and important financial bills and how courts operate, overturning central bank decisions on recognising banks as insolvent."

She added that "cleansing" the banking sector and improving transparency were priorities and that reforms need to be comprehensive if the economy is to be modernised and function effectively. Tough and effective anti-corruption measures, at all levels, would be needed.

SUB-CUSTODY GUIDE

MIDDLE EAST & AFRICA



BAHRAIN

UNWEIGHTED		
RANK		Score
1	HSBC	5.29

WEIGHTED		
RANK		Score
1	HSBC	6.01

Bahrain's economy and government revenues have unsurprisingly has been negatively affected by sharply lower oil prices over the past three years. Its debt-to-GDP ratio stands at 80% and its budget deficit is still wide at 18% of GDP. However, growth was a healthy 3.7% in 2016, up from 2.9% in 2015, and it is undertaking meaningful fiscal reform, including raising taxes and reducing waste *(see full MEAMC report pages 112-114)*.

"However, the apparent stabilisation of global oil prices in 2016 has brought a similar firming of the main index and, after a year of shrinking stock prices, some increasingly attractive valuations," Oxford Business Group stated in a report. "The larger story of 2016, however, has been of some important structural advances, such as the introduction of real estate investment trusts (RIETS) and the emergence of a vibrant secondary debt market."

More legislative and infrastructural developments due in 2017 promise to sustain this forward momentum.

BOTSWANA

UNWEIGHTED		
RANK		Score
1	Standard Bank	5.26
2	Standard Chartered	5.03

WEIGHTED		
RANK		Score
1	Standard Chartered	6.10
2	Standard Bank	4.38

Botswana has taken legislative action to properly define the scope of regulation in the non-bank financial services sector. The Non-Bank Financial Institutions Regulatory Authority (NBFIRA) Act, which was passed into law in November 2016, aims to reset the regulatory and supervisory architecture of the NBFI sector by establishing a 2-tier approach to NBFI regulation in Botswana. It brings the regulatory and supervisory structure in line with international standards, according to a spokesperson for Standard Bank.

The Botswana Stock Exchange (BSE) undertook various initiatives in 2016 in order to internationalise the local bourse, including hosting the inaugural listing conference to encourage local companies to list, as well as the first ever bond market conference in October, said Vincent Baituti, head of investor services at Stanbic Bank Botswana.

Thapelo Tsheole, CEO of the BSE, was elected to the main committee of the African Securities Exchanges Association (ASEA) as its AGM in November 2016, hosted in Kenya.

The BSE also joined both the World Federation of Exchanges in June 2016 and the United Nations Sustainable Stock Exchanges initiative in July 2016.

The Central Securities Depositary of Botswana (CSDB), a subsidiary of the BSE, saw its Thomas Murray rating bumped up to BBB, with an A+ for its asset safety risk.

The Securities Act came into effect on April 1 2017, along with the subsidiary legislations including the Securities (Institutions Licensing) Regulations 2017 and the Securities (Persons Operating a Securities Infrastructure Business) Regulations 2017. Its commencement introduces concepts such as market makers and CCPs.

"This legislation is meant to consolidate and amend the laws relating to the regulation and supervision of the securities industry in Botswana," said Baituti. "We also witnessed a wave of fee increments by the BSE and the CSDB in 2016, which affected market participants as well as both local and international investors."

Fees were also adjusted on the back of rising costs by the BSE and the CSDB, which was particularly significant because fees had not been reviewed since CSDB's inception in 2008. Stanbic Botswana successfully lobbied the CSD to provide daily statements to market participants, allowing them to reconcile daily to the CSDB, said Baitu

COTE D'IVOIRE

UNWEIGHTED		
RANK		Score
1	Société Générale Securities Services	5.24
2	Standard Chartered	4.50

WEIGHTED		
RANK		Score
1	Standard Chartered	5.09
2	Société Générale Securities Services	4.69

It has been a decade since the civil war officially ended and, despite post-election violence in 2010, the international community said says US-educated economist Alassane Ouattara's election and re-election in 2015 was "credible". Cote D'Ivoire is the world's largest cocoa producer and is relatively prosperous relative to countries in the region.

The country is also home to West Africa's regional stock exchange,

> "The Securities Act is meant to consolidate and amend the laws relating to the regulation and supervision of the securities industry in Botswana"
>
> **Vincent Baituti, Stanbic Bank Botswana**

the Bourse Régionale des Valeurs Mobilières, which one of the fastest-growing stock exchanges on the continent.

An Oxford Business Group report stated: "Côte d'Ivoire's capital markets are closely linked to the broader fortunes of the eight-state UEMOA of which it is a member. On the back of strong macroeconomic growth, equity activity has been increasing steadily over the past five years, with a strong rise in the volume of transactions. Nonetheless, the bourse continues to face challenges common to emerging and frontier market exchanges around the world, including liquidity issues."

EGYPT

UNWEIGHTED

RANK		Score
1	HSBC	5.33
2	Citi	5.22

WEIGHTED

RANK		Score
1	Citi	6.25
2	HSBC	6.03

After four years of negotiation, the Egyptian government reached a preliminary agreement in November 2016 with the IMF for a loan of $12bn. To qualify for this financial assistance, the Central Bank of Egypt (CBE) floated the Egyptian pound to help the country's external competitiveness, support exports and tourism, and attract foreign investment.

The currency subsequently dropped approximately 60% against the US dollar year-on-year in December 2016, reaching historic lows of 19.7 Egyptian pound per US dollar. The IMF indicated in January 2017 that the Egyptian pound was trading at equilibrium exchange rate after the November float.

Also in November, the Egyptian government announced a further delay to the introduction of capital gains tax on equity for three more years in order to target foreign investors.

However President Abdel Fattah el-Sissi has undertaken other investment reforms, including introducing VAT of 14% in August 2016, which will rise to 15% in the next fiscal year.

Listed shares are held in dematerialised form and are managed by Misr for the Central Clearing Depositary and Registry (MCDR), which is the sole central depositary company in Egypt. Clearing and settlement is done on a DVP basis, whereby MCDR acts as the clearing house between the buying and selling member firms.

It was announced in April that year that E-Finance, the electronic payment company that operates the Egyptian government network, has signed a protocol of cooperation with Misr for MCDR and with Nile Information Technology and Dissemination (NITD). The agreement will activate the electronic payment for investor and brokerage firms for the first time in the Egyptian markets, allowing for a faster transaction of securities.

GHANA

UNWEIGHTED

RANK		Score
1	Standard Bank	5.39
2	Standard Chartered	4.73

WEIGHTED

RANK		Score
1	Standard Chartered	5.23
2	Standard Bank	3.60

The medium growth outlook of the Ghana economy is generally positive but contingent on sustained improvements in the energy supply, continued stability in the FX market and additional oil production, according to William Sowah, head of investor services at Stanbic Bank Ghana.

A new system for merged depositary went live on March 29 2016, delivering a single client depository account and single venue for settlement for all securities types. The depositary system is integrated with the Automated Trading System of the Ghana Stock Exchange (GSE)

and the Ghana Interbank Settlement System (GIS) of Bank of Ghana.

The new platform delivers a single client depositary account and single venue for settlement for all securities types. The project involved the migration of all depositary accounts for debt and equity onto a new platform.

"The introduction of a new CSD system supports an improved settlement environment, including the removal of the trading account concept, thereby reducing the risk of having client securities held out of custody," said Andy Osborne, global head of network management at Northern Trust.

Osborne highlighted how the CSD also introduced a new fee for the settlement of fixed income instruments, which had initial issues relating to the interpretation of how the fee should be applied. "This appears to have now been addressed," he said.

As a result of the funding challenges experienced by non-resident clients, the bonds settlement cycle has been switched from T+0 to T+2.

The Ghana Commodities Exchange (GCX) Project, launched in 2015 by the Ministry of Trade and Industry government and the private sector, is expected to be fully operational by the first half of 2017.

The 2017 government budget statement proposed to waiver capital gains tax (GCT) for those realised on securities on the GSE, reverting to the pre-November 2015 arrangement.

"One potential large-scale reform that could drive increased trading and listings is the West African Capital Markets Integration (WACMI) programme," said Sowah. The programme will align the stock exchanges Ghana, Côte d'Ivoire, Nigeria, Sierra Leone and Cape Verde, as well as the regional Bourse Régionale des Valeurs Mobilières. Eventually it will allow brokers from each country to trade directly on any of the four exchanges.

ISRAEL

UNWEIGHTED

RANK		Score
1	Bank Hapoalim	4.79

WEIGHTED

RANK		Score
1	Bank Hapoalim	4.16

The Tel Aviv Stock Exchange (TASE) announced a three-goal strategic plan in April 2017 to restore to its among local investors and capital-raising firms. Local investor numbers in the exchange have decreased from 250,000 in 2011 to 160,000 in 2016.

The first measure is to build listings via both repatriation of some of the 90 Israeli companies listed abroad, with a market cap of NIS250bn ($69.9bn), as well as plan to encourage private SMEs, real estate and infrastructure projects and technology companies to list.

The second is to expand the array of services offered by TASE, such as the provision of custodial services for institutional investors, the creation of a central securities lending pool, trading in securitised financial instruments and the introduction of an innovative digital registration service for companies.

The third is to enhance market liquidity. TASE aims to boost retail participation, which is low by international standards. It is seeing to make public distribution more efficient, with local and international institutions providing non-advisory brokerage.

TASE CEO Ittai Ben-Zeev, stated: "TASE should and can be a significant value creator in the Israeli economy – and can revert to being a dominant driver of corporate growth and the means through which the Israeli public can take part in the success of the local economy. The situation in which only a few are partners in Israel's long-term economic success needs to be rectified and we believe that the Israeli capital market is the best and most efficient platform for accomplishing this.

"The action plan includes operational measures which are implementable in the relatively short term, and which, in large part are based on TASE's existing internal capabilities and strengths – so that we will be able to see results in the foreseeable future."

JORDAN

UNWEIGHTED

RANK		Score
1	Bank of Jordan	6.71
2	Standard Chartered	5.12

WEIGHTED

RANK		Score
1	Standard Chartered	5.71
2	Bank of Jordan	4.09

The Amman Stock Exchange (ASE) announced in July 2016 that it plans to start applying the Regulating Directives for Trading in unlisted securities on August 4 2016, in cooperation with the Jordan Securities Commission (JSC) and the Securities Depositary Center (SDC).

It also issued the Listing Securities Directives for 2016 before launching a new OTC exchange, which is a by-product of these two sets of regulations. 29 companies joined the exchange by September, according to ASE figures. Companies wishing to trade must be registered with the Jordan Securities Commission and the Securities Depository Centre, and disclose financial and non-financial information.

Mohammed Aburoub, executive

manager for Bank of Jordan's securities services, also highlighted the JSC's commitment to approaching "higher strategic objectives," such as issuing a draft proposal for securities lending and borrowing, short selling and securities depositary receipts instructions for 2016. "The JSC aims to introduce a new investment tools to increase the market performance, strength and confidence in investing securities," he said.

The ASE chairman has confirmed the transfer of the ASE to a public shareholding company, 100% owned by the government, in the first quarter of 2017.

The SDC recently completed all the system development and legislative changes to implement a new cash clearing model that will fully involve local custodians in the clearing of cash and securities on behalf of investors, Aburoub said.

The Central Bank of Jordan introduced the automated clearing house (ACH) system, which includes the JOD, USD, EUR and GBP. "ACH is a secure clearing and settlement facility established to process the exchange of electronic transactions between participants," Aburoub added.

Jordan follows a T+2 settlement cycle but for foreign investors, using local custodian banks are subject to an exceptional process whereby custodian clients can deliver the securities by TD+1 12.00 hours.

Under the new proposed model, custodians would be party to the settlement process run by the SDC. In order to ensure seamless settlement, the new process requires the custodian to affirm transactions – currently proposed at TD+1 12.00 hours.

These are various challenges facing this move, according to an expert at Standard Chartered Bank, including the requirement to pre-fund the account or secure credit limits, shorter time put strain on pre-matching of turnaround trades that is manual and holiday coverage.

KENYA

UNWEIGHTED

RANK		Score
1	Standard Bank	5.93
2	Standard Chartered	5.22

WEIGHTED

RANK		Score
1	Standard Chartered	6.52
2	Standard Bank	5.79

The Kenya financial system has been under severe strain. "2016 will remain etched in the minds of the banking industry players and general public following the placing under receivership, in April 2016, of the third commercial bank in a span of eight months," said Janet Waiguru, head of investor services at Standard Bank East Africa.

This greatly impacted the confidence of the banking sector, according to Waiguru, and witnessed flight to safety to tier one banks, resulting in liquidity challenges for tier two and three banks.

The signing of the Banking (Amendment) Bill 2015 introduced interest rate capping to the rates offered by banks on deposits and for credit facilities. The Central Bank Rate (CBR) at 10% is the industry reference rate.

"The Nairobi Securities Exchange (NSE) did not have a good year," said Waiguru. "Performance, as tracked by the NSE 20 share index and equity turnover, was 25.2% and 29.6% down year-on-year."

Market development gained traction as the Capital Markets Authority (CMA) continued to push on with the initiatives in its 10-year masterplan. This included the issuance of the draft regulations to govern securities lending and borrowing and short selling and a policy guidance note on Global Depositary Receipts (GDRs) and Global Depositary Notes (GDNS) in Kenya. "This provided an additional framework on how foreign issued securities may be introduced for trading in Kenya as depository receipts or notes," said Waiguru.

The allowable foreign investment in listed companies, in general terms, was increased to 100% by the end of 2016 but the abolition of the capital gains tax on January 1 2016 gave this market liberalisation measure its real impact and brought much needed certainty.

Ahead of the upcoming general election in Kenya on 8 August, "the prospects for the capital markets and investments in key sectors remain optimistic," she added.

> "The Nairobi Securities Exchange did not have a good year. Performance, as tracked by the NSE 20 share index was 25.2% down year-on-year"
>
> **Janet Waiguru, Standard Bank East Africa**

KUWAIT

UNWEIGHTED

RANK		Score
1	HSBC	5.19

WEIGHTED

RANK		Score
1	HSBC	5.86

Kuwait issued its first ever sovereign bond issue in March 2017. It was a milestone event for the county's capital markets and the wider GCC, as it was the remaining sizable country not to have issued. It collected $8bn in five-year ($3.5bn) and ten-year ($4.5bn) notes.

The country does not really need

the money and the issue was more about building its markets. It has the lowest breakeven oil price in the GCC and debt-to-GDP remains sub-20%.

The issue was oversubscribed (it could have raised $9.5bn) and was deliberately placed in internationally. MENA was allocated 26% of each tranches while US funds took over 50% of the ten-year bond and Europe 46% of the five-year bond. The AA rated country is paying 2.75% on five-year paper and 3.5% on ten-year. It was considered a solid success, with prices rising modestly after floating. Deutsche Bank, NBK capital and Standard Chartered supported.

Kuwait is expected to build out a yield curve with future issues. On this occasion the global coordinators were Citigroup, JP Morgan and HSBC.

The equities market has also developed over the last couple of years; Boursa Kuwait Securities Company took over management of the Kuwait Stock Exchange in April 2016. "The move was widely understood to indicate the beginning of a new era for Kuwait's capital market," according to an Oxford Business Group report. "This shift follows on from a series of major reforms initiated by the passage of the 2010 Capital Markets Law, under which the sector regulator – the Capital Markets Authority – and other state entities have worked to transform the bourse, with the long-term objective of boosting the market's performance and overall value."

LEBANON

UNWEIGHTED

RANK		Score
1	HSBC	5.19

WEIGHTED

RANK		Score
1	HSBC	5.79

In May 2017 the central bank governor Riad Salame was granted a fifth six-year term by Parliament, in a move praised for maintaining stability in an often politically volatile country. He is renowned for steering the financial sector away from collapse.

While the economy remains weak, and the government budget deficit is a cause of concern, according to Salame, speaking at a recent Euromoney conference, the state now has stable foreign currency reserves to back the economy financial sector.

Between June and August 2016 the central bank engaged in what the IMF described as "unconventional" financial engineering. The central bank exchanged some of its Lebanese pound-denominated debt holdings for dollar-denominated finance ministry Eurobonds, while private banks provided dollars in exchange for newly issued dollar certificates of deposit.

Lebanon has strict banking regulations as well as bank secrecy laws, which may prove an obstacle to adopting incoming international standards *(see MEASC event review, pages 112-114)*.

MALAWI

UNWEIGHTED		
RANK		Score
1	Standard Bank	5.04

WEIGHTED		
RANK		Score
1	Standard Bank	3.41

In 2016 Malawi saw moderate activity relating to capital markets development and two local custodians dominate their market.

"The market is dominated by local pension funds and institutions that are typically focussed on the long-term," said Wilson Kuyokwa, head of investor services Malawi at Standard Bank, adding that foreign investor activity is limited.

The Malawi Stock Exchange (MSE) has 13 listed counters and no listed corporate bonds. "The Malawi market is fairly small and is challenged with low liquidity as investable assets available on the MSE are limited."

The MSE plans to introduce a CSD in 2017. Kuyokwa stressed that listed equities and corporate bonds will first need to be dematerialised. "The change aims to give an improved capital market offering in Malawi with possible reduction in the settlement cycle, improved asset safety, improved turnaround times and processing efficiency," he said.

The Reserve Bank of Malawi (RMB) circulated a draft Securities (Amendment) Bill in November 2015 to capital market participants to amend the Securities Act 2010. The RMB held a workshop to review responses in April 2016 and has submitted its final draft to the Ministry of Justice. Major changes in the amendment bill include rules on insider trading and the winding up of capital market participants.

"The bill is expected to improve the legal framework of the securities market and attractiveness of the securities market to investors," said Kuyokwa.

MAURITIUS

UNWEIGHTED		
RANK		Score
1	HSBC	5.11

WEIGHTED		
RANK		Score
1	HSBC	5.32

The economy is performing well with unemployment down to 7.3% for the year, from 7.9% in 2015. It is at its lowest lever since 2008, according to official statistics. Economic growth is also gaining traction with 3.8% predicted for 2017, up from 3.5% in 2016.

Mauritius has diversified in recent years, from sugar and textiles, to build meaningful sectors in offshore banking and business outsourcing, as well as tourism. It is considered one of Africa's most stable and prosperous economies.

Despite being geographically part of Africa its links economic links with India are strong – Mauritius is in the top two (with Singapore) biggest recipients and sources of foreign direct investment with India. In May 2017, Mauritius was been offered a $500m credit line by India in a deal connected with maritime security, given its strategic position in the South Indian Ocean.

MOROCCO

UNWEIGHTED		
RANK		Score
1	BNP Paribas Securities Services	6.43
2	Citi	5.36
3	Société Générale Securities Services	5.11

WEIGHTED		
RANK		Score
1	BNP Paribas Securities Services	6.22
2	Citi	5.86
3	Société Générale Securities Services	5.59

The Casablanca Stock Exchange has the second largest market by capitalisation in Africa, at $55bn split between 75 firms. It is also expanding – it had its largest initial public offering (IPO) in eight years in June 2016 had reportedly has two firms planning to list in 2017/18 and has a programme to encourage small and medium sized firms to list.

The Casablanca Stock Exchange (CSE) announced last November that it planned to list 20% of its shares and sell a further 15-20% to a strategic investor (possibly at the same time) at some point over the next five years. In preparation it changed its ownership structure in June 2017 from a mutual company for brokers.

"However, the bourse's all-share index remains below the levels seen before the global financial crisis, as do IPO and trading activity more generally, and it seems likely to be some time before these return to pre-crisis levels," stated a Oxford Business Group report. "Nevertheless, the coming years will see a wide range of reforms applied across the kingdom's capital markets, including the launch of new exchanges and a variety of products, all of which should help to boost the CSE's substantial potential."

NAMIBIA

UNWEIGHTED		
RANK		Score
1	Standard Bank	4.76

WEIGHTED		
RANK		Score
1	Standard Bank	4.34

2016 was a year of change for business with the implementation of TCS BaNCS custody system. All custody assets are on a single platform allowing additional functionality to service domestic and international clients, said Corny Zaaruka, head of investor services at Standard Bank Namibia. The Namibian market initiated discussions in 2015 to launch a CSD for local listed and unlisted securities (including government securities).

"These discussions are progressing well and there has been a material stretch made on the regulatory side of things during 2016 in order to enable the operations of this national infrastructure in 2017 at the back of the implementation of the Financial Institutions Market Bill (FIM Bill)," said Zaaruka.

Two significant regulatory requirements that were implemented in the market in 2016: disclosure requirements and withholding tax on interest.

The disclosure requirements saw the amendment of the Companies Act Administrative regulations, which were published in the government gazette on September 1 2016, and are line with the FIA for collecting, requesting, receiving and analysing suspicious transaction reports.

A new section 35B was added to the Income Tax Act in respect of withholding tax on interest (WTI) paid to a non-resident.

> "2016 was a challenging macro story in Nigeria as the country formally slid into recession"
>
> **Akeem Oyewale, Stanbic IBTC Nigeria**

NIGERIA

UNWEIGHTED		
RANK		Score
1	Standard Bank	5.51

WEIGHTED		
RANK		Score
1	Standard Bank	6.54

There is a single central depositary in Nigeria for NSE (Nigerian Stock Exchange) and NASD (National Association of Securities Dealers OTC Exchange) trade instruments, the Central Securities Clearing System (CSCS). The Central Bank of Nigeria introduced a depositary system for government-issued securities in April 2014, the scripless securities settlement system (S4).

"2016 was a challenging macro story in Nigeria as the country formally slid into recession," said Akeem Oyewale, head of investor services at Stanbic IBTC, Nigeria. The foreign exchange situation was also "dire", as the country suffered from increased unmet foreign exchange demand by investors who sought to repatriate proceeds of investments sold and delayed divided/coupon remittances. The Naira was also officially devalued in the middle of the year as the CBN allowed the NGN to trade from N199 to N285 to the US dollar in June 2016.

Despite the significant macro headlwinds, Nigeria's economy is expected to recover, said Oyewale, with many experts predicted a 1% GDP growth and further spending on infrastructure by the government.

There were also positive changes in the market, according to Oyewale. The FMDQ OTC Exchange (the licensed OTC market operator), in conjunction with the CBN, introduced the Naira-settled OTC FX Futures, stretching out to one year.

The NSE also conveyed its desire to have a CPP. "This would facilitate derivatives trading in the market and also enhance the confidence levels in the Nigerian market," said Oyewale.

The plan to demutualise the market was deferred to 2017. A major announcement was also made regarding the potential listing of MTN Nigeria, the largest telecommunications operator in Nigeria, on the NSE. "Its listing would provide a major boost to the Nigerian bourse, which had been bereft of major listings for the last few years."

The Securities & Exchange Commission (SEC) continued in its drive to implement the recommendations of its 10-year masterplan. The Nigerian Sovereign Wealth Fund was involved in the setting up of the supra agency for Infrastructure Credit Guarantee, which would enhance credit ratings for transactions in the country.

OMAN

UNWEIGHTED		
RANK		Score
1	HSBC	5.29

WEIGHTED		
RANK		Score
1	HSBC	5.99

As an oil exporter, Oman has been hit by sharply lower oil prices in the last couple of years. Its budget deficit peaked at 22% in 2016 and is now heading in the right direction; it is projected to almost halve to 12% this year. In May it announced another $2bn Islamic bond issue to bridge the shortfall, adding to the $5bn it has already borrowed in 2017. Earlier issues were heavily oversubscribed.

The authorities are confident of a further improvement in the budget situation, having embarked on a programme of privitisation and public-private partnerships. It is also has a policy of reducing and rationalising spending generally. As a GCC state, it is also set to implement VAT of 5% from some point during 2018, although perhaps not meeting the January target.

These increases in taxes, combined with an increse in the corporation tax rate from 12% to 15%, has not yet harmed the economy but more appear to be planned and could combine to be a drag on activity. "Parliament's vote to raise corporate taxes in May 2016 is among the most significant financial developments in Oman in recent years. A low-tax environment is a key incentive to invest across the GCC, and the tension between drawing growth-promoting investment and maintaining state revenues has made such increases a contentious issue for decades," an Oxford Business Group report stated. "The ramifications will become apparent over the course of 2017, but the taxation debate looks unlikely to end there."

In common with many oil producing nations it is also seeking to diversify its economy. The IMF estimates that its oil revenue will fall by 2.5% this year but this is will more than be made up by the growth of non-oil activity.

PALESTINE

The World Federation of Exchanges (WFE) approved the full membership application made by the Palestine Exchange (PEX) in 2015 at its 56th AGM in Colombia in November 2016.

The FTSE Russell indices upgraded the Palestine Exchange (PEX) to frontier market status during its annual review.

The Bank of Palestine received a safe custody licence in 2014 from the Palestinian Capital Market Authority (PCMA) and in 2015 from PEX to perform safe custody for securities for local and foreign investors, according to Suleiman Nasr, head of investment and placements at the Bank of Palestine.

"PEX was fully automated upon establishment – the first fully-automated stock exchange in the Arab world and the only Arab exchange that is publicly traded and fully owned by the private sector," said Nasr.

The Bank of Jordan entered the market, starting to provide custody and clearing services in Palestine in May 2016. "After having obtained the custody license, the membership of the Clearing Depository and Settlement and completed a successful User Acceptance Testing on the custody system," said Mohammed Aburoub, executive manager of services at the Bank of Jordan.

QATAR

UNWEIGHTED		
RANK		Score
1	HSBC	5.52

WEIGHTED		
RANK		Score
1	HSBC	6.07

Since the MSCI upgrade to emerging status in 2014 sub-custodians agree that they have seen a significant uptick of activity and have witnessed a move towards more transparency and effective governance.

Continuous trading in rights shares has been permitted on the Qatar Stock Exchange since October 2016. Previously, rights shares were permitted as one-time sales and could not be traded further.

The first Qatar-based ETF is expected to be launched in the second quarter of 2017, according to Shreen Abeysekera, head of HSBC Securities Services, Qatar.

The stock exchange is considering the introduction of the CCP concept, covered short selling and Islamic structured products similar to futures and options. "The exchange is working with Sharia scholars to determine how to best structure these products," said Abeysekera.

The Qatar Central Securities Depositary (QCSD) introduced an ultimate beneficial owner disclosure requirement for account opening at the central depositary, effective December 4 2016 and focussed on upping AML and KYC standards.

Abeysekera said that HSBC is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currently working closely with the QCSD and Qatar Financial Markets Authority to simplify the process further by adopting international best practices. "One of the changes we hope to see in the near future is the introduction of bulk order execution. This will enable brokers to trade on behalf of multiple NINs (National Identification Number) through one single trading account and by end of day allocate the shares to clients' NINs."

HSBC also hopes to implement an "error trade correction window" to rectify error trades without impacting clients.

SAUDI ARABIA

UNWEIGHTED

RANK		Score
1	HSBC	5.37

WEIGHTED

RANK		Score
1	HSBC	5.84

Saudi Arabia's Tadawul stock market has switched to a two-day settlement cycle for equities, bonds, Reits and ETFs, effective at the end of April 2017. Trades were previously settled on the same day, or T+0.

The bourse had outlined the details of its T+2 settlement plans in January 2017 along with draft rules on covered short-selling and the borrowing and lending of securities, which also commenced in April.

Officials first announced the proposed changes in 2016 in a move to align its market model with international standards, attract foreign investors, improve trading efficiency and reduce risk.

The Saudi Stock Exchange had consulted on its T+2 and securities lending plans, ending on February 8 2017.

Securities Depository Center (SDC) acts as Saudi Arabia's CSD, performing securities settlement safekeeping and registry functions.

As a member of the GCC, Saudi has agreed to implement VAT of 5% from an unconfirmed point in 2018. An initial deadline of January was set but there is a 12-month window built into the agreement.

Saudi Arabia has been tapping the bond markets heavily in response to its budget deficit and shrinking foreign reserves. It set a new record for emerging or frontier market issuance in October 2016 when it attracted $67bn in investor bids for a $17.5bn issue.

SOUTH AFRICA

UNWEIGHTED

RANK		Score
1	Standard Bank	5.86
2	RMB Custody and Trustee Services	5.35
3	Société Générale Securities Services	5.31
4	Standard Chartered	4.82

WEIGHTED

RANK		Score
1	Standard Chartered	6.59
2	Société Générale Securities Services	5.72
3	Standard Bank	5.06
4	RMB Custody and Trustee Services	4.56

In 2016 the South African capital market saw a number of changes to infrastructure, operations, participation, rules and regulations, according to Rajesh Ramsundhar, head of investor services at Standard Bank South Africa.

The South African equities market shifted to a T+3 trading and settlement cycle on July 11 2016 and is now aligned with international best practice. Following this change, volumes have increased by around 3-5% and there is an improvement in liquidity. "Surprisingly though, settlement expectations and failures have been low and well below expectations of the market," said Ramsundhar.

2016 also saw a new strategic project introduced, replacing South African CSD Strate's UnexCor system. Strate launched the new system for the settlement of money market securities in April last year, beginning Strate's wider plan to replace its IT infrastructure for all asset classes.

Strate is also progressing towards the introduction of a Debt Instrument Solutions (DIS) project, which is to manage the implementation of its new bond system for the clearing, settlement and asset servicing of debt instruments, said Andy Osborne, global head of network management at Northern Trust. This will subsequently result in the migration of bond securities onto the TCS BaNCS MI platform will be carried out during 2017.

In addition to replacing Strate's core custody and settlement system for bonds, the DIS project will also introduce a new settlement model for bonds. "The initiative is aimed at creating efficiency and reducing risk for bond settlement and will be a welcome development for foreign investors," said Osborne.

Phase one of the project is to replace the technology coupled with the introduction of a new settlement model and an AS-IS account structure. Phase two involves the migration from the AS-IS account structure to a more transparent securities holding and ownership model.

Ramsundhar said that Standard Bank is in the process of migrating clients to its new online platform for custody services and investor services online.

The South African capital market saw the emergence of a number of new stock exchange licence applications during 2016, including ZAR X and four African exchanges, which were officially licensed by the Financial Services Board (FSB).

The Johannesburg Stock Exchange (JSE)'s Integrated Trading and Clearing initiative (ITaC) is a multi-year programme of work focused on the introduction of an integrated solution for the JSE's trading and clearing services. "The project is making good headway and is expected for delivery in Q1 2018," said Ramsundhar.

ITaC will implement multi-product solutions to enhance the JSE's current trading and clearing functions by migrating all derivatives and cash bond markets into the Millennium IT trading platform. Clearing members will be allowed to hold securities as collateral of up to 20% of their margin requirements, freeing up their cash for other uses and resulting in greater utilisation of Strate's collateral solution.

Granite (an alternate Bond CSD) has a conditional license and is currently engaging with Strate to work on interoperability, said Ramsundhar.

South Africa increased the capital gains tax and introduced a Special Voluntary Disclose Programme for tax and exchange controls in 2016.

SWAZILAND

UNWEIGHTED

RANK		Score
1	Standard Bank	4.65

WEIGHTED

RANK		Score
1	Standard Bank	5.45

The Capital Markets Association (CMA) was formed in December 2016, comprising of trustees, custodians, investment advisors, brokers and asset managers. "It will be instrumental in the identification and resolution of issues within the market," said Lindiwe Manana, head of investor services Swaziland at Standard Bank.

A review of both the listing requirements and the Swaziland Stock Exchange (SSX) Rule Book is underway. Amendments have been drafted and submitted by SSX for approval by the Financial Services Regulatory Authority (FSRA).

The SSX has also advised the industry on its intention to launch of an automated trading system (ATS). Manana said that the implementation is delayed due to issues with the "mobile trading platform integration" but added "the change is expected to give improved efficiency and accuracy, as well as increased activity".

Manana said that there has however been development in the local market and particularly in terms of investments from local institutions. The formation of the FSRA has seen an increase in the adherence of the

30% local market investment requirement for insurance and retirement funds. The FCA has intimated a 50% increase by the end of 2017.

The Central Bank of Swaziland has implemented phase 1 of its CSD, which has resulted in the dematerialisation and creation of an electronic register and transfer system for government securities.

TANZANIA

UNWEIGHTED		
RANK		Score
1	Standard Bank	5.64
2	Standard Chartered	4.50

WEIGHTED		
RANK		Score
1	Standard Bank	5.00
2	Standard Chartered	4.96

> "Tanzanian capital markets have gone through notable developments over the last few years"
>
> **Avith Massawe, Standard Bank Tanzania**

"Tanzanian capital markets have gone through notable developments over the last few years," said Avith Massawe, head of investor services at Standard Bank Tanzania.

One of these was the removal of foreign ownership limits on equities and corporate bonds listed on the Dar es Salaam Stock Exchange from the previous cap at 60%. It has also seen partial removal of limits on participation in government debt trading by foreign investors, allowing residents from East Africa to participate up to 40% of the total issuance.

The Dar es Salaam Stock Exchange (DSE) was demutualised and self-listed in 2016, in order to "enhance its financial and operational capacity, corporate governance, increase access to efficiently priced funds to finance the exchange's growth and capital markets development in the country," said Massawe. Investment is being make in trading technology and the introduction of new products and services.

In December 2016, the DSE revised the settlement guidelines for equities and corporate bonds following their inclusion of custodian banks as settlement participants for foreign investors and local institutional investors, effective April 2017. "With the new settlement guidelines, the risk faced on the sale side, where securities were transferred to the brokers' trading account prior to trade date, has been addressed," said Massawe.

The initiative has also reduced the time difference between movement of cash and securities to five minutes. This is a "major step towards achieving true DVP", according to Massawe.

However, an adverse requirement to pre-advise on sale transactions was also introduced.

Up until early 2016, the pension industry was governed, regulated and serviced by the Social Securities Regulatory Authority (SSRA). The tabling of administrative guidelines on management of segregated schemes would open the industry to entry by intermediary participants such as administrators and custodians; this is expected H1 2017.

TUNISIA

UNWEIGHTED		
RANK		Score
1	Société Générale Securities Services	5.43

WEIGHTED		
RANK		Score
1	Société Générale Securities Services	6.39

The sole depositary is Tunisie Clearing, responsible for safekeeping and clearing its electronic book-entry system. All securities are dematerialised at the Tunisie Clearing; however, it does not act as a central registrar.

The Tunis Stock Exchange (TSE), "Bourse des Valeurs Mobilieres de Tunis" (BVMT), signed a new agreement with Euronext, which will provide electronic trading technology through its multi-market and multi-asset platform of Optiq by January 2018. It manages the cash and derivatives markets.

TSE is also planning to implement a certified quality management system ISO 9001. An RFP has been published by the CSD for the acquisition of a new system with better STP capabilities. It should be operational by 2018, according to Wagih Gacem, Societe Generale's head of Tunisia: "The provider has been chosen and will be disclosed in the coming weeks."

Decree number 2017-393 of March 28 2017, states that a non-resident person or entity is allowed to sell securities to a non-resident person or entity versus an abroad payment. This applies to OTC trades where CSD, CBT and TSE are not involved.

The 50% foreign ownership limit was removed by the new investment law, effective September 30 2016.

A new general regulation governing the Tunisian CSD was approved in early 2016, which includes participant requirements and conventions, mandatory monthly reconciliation custodian records, and the setting of an audit committee within the CSD.

Three projects have been submitted by the Tunisian regulator, CMF, for public consultation and have been approved. These are: insider trading, (approved March 2017); brokers (approved January 2017); professional cards to access the CSD secured platform (approved November 2016).

The CMF is yet to give final approval to the extension of market trading hours to between 8.30am and 3.40pm, from 9am to 2.05pm, and the extension of the maximum variation range from 6.09% to 9%.

March 2017 also saw a memorandum of understanding signed between the TSE and Nasdaq Dubai, as well as a cooperation convention signed between the CMF and the financial authority of Qatar.

UGANDA

UNWEIGHTED		
RANK		Score
1	Standard Bank	5.37
2	Standard Chartered	4.75

WEIGHTED		
RANK		Score
1	Standard Chartered	5.29
2	Standard Bank	4.06

The main driver of custody business in 2016 was the high level of activity in fixed income, particularly government securities, said Andrew Omiel, head of investor services at Stanbic Bank Uganda. "These continue to be very attractive securities in the Ugandan market into 2017," said Omiel. "This fact is attributable to the prevailing macroeconomic fundamentals, which have led to fairly high yields for government securities and also the desire for capital preservation."

With regards to the equities market, the Uganda Securities Exchange (USE) All Share Index (ALSI) showed a marginally declining trend in 2016, especially in the second half of the year due to the subdued activity at the bourse and effect of the cross-listed stocks from the Nairobi Stock Exchange (NSE), which lost significant value.

Omiel added: "However, the outlook is positive as the USE tries to attract more products, including new listings, especially for the alternative market segment, for 2017 and beyond."

USE is in advanced discussions with the central bank, Bank of Uganda, to start trading in treasury bonds. Currently treasury bonds, although listed at USE, are traded OTC through primary dealers.

"The trading of treasury bonds at the USE will increase activity at the bourse and also allow the investors full benefits of price discovery and competitive pricing by the traders," said Omiel.

Other USE initiatives in 2017 include the linking of the CSD with the national payment system (RTGF) to allow "true DVP settlement," facilitated by Bank of Uganda, rather than using commercial banks at settlement banks, expected H2, 2017. There are also plans to dematerialise all securities listed at USE by the second half of 2017 and also to demutualise the exchange, and eventually list the USE on the bourse.

UNITED ARAB EMIRATES

UNWEIGHTED		
RANK		Score
1	HSBC	5.64

WEIGHTED		
RANK		Score
1	HSBC	5.93

Over the last year, UAE witnessed several significant announcements and measures to enhance the regulatory framework and modernise the markets. The UAE regulator, Securities and Commodities Authority (SCA), has an ambitious five-year plan to elevate the UAE stock market to a developed market status by 2020.

The plan was co-developed with Dubai Financial Market (DFM) and the Abu Dhabi Securities Exchange (ADX) and included measures to meet MSCI requirements, including the transfer of the governance role currently undertaken by the SCA to the UAE-based exchanges, so that the exchanges become "self-governing."

Another initiatives are the issuance of derivatives and options for providing liquidity, developing the technological infrastructure related to disclosures and general electronic services, and introducing a CCP.

As per the new CCP regulation, clearing functions will be performed by a company legally segregated from the financial markets and will operate under a license granted by the SCA. The specialised CCP clearing entity is expected to ring-fence the risks associated with the clearing and settlement of trades, enhance

collateral efficiency, increase liquidity and create a settlement default fund.

The long-awaited new insolvency law came into effect on December 29 2016, which modernises bankruptcy regulations and allows troubled business owners to reschedule debt, said Georges Cattan, head of HSBC Securities Services UAE.

The DFM and ADX are both enhancing their systems and have introduced several measures, including allocation accounts and appointing Central Bank of the UAE as their settlement bank.

The UAE is an investor ID market, requiring investors to obtain an investor number (NIN) from the exchanges prior to initiating trading. Investors are only allowed to keep assets under one NIN with a specific local sub-custodian.

This has been perceived by many investors as restrictive for various reasons including the inability to appoint a contingent service provider in line with AIFMD and Ucits V regulations, the inability to support certain Islamic structures and repo transactions, according to Standard

Chartered Bank.

However, the regulator approved an amendment in Q3 2016 to cater to different scenarios by allowing investors to open multiple sub-NINs under different custodians.

Local depositaries are making changes to their systems to implement this arrangement, which is likely to be completed by the end-2017. Global custodians (and their underlying investors) could then keep their assets with multiple sub-custodians if they so wished.

ZAMBIA

UNWEIGHTED

RANK		Score
1	Standard Bank	5.17
2	Standard Chartered	4.89

WEIGHTED

RANK		Score
1	Standard Bank	5.99
2	Standard Chartered	5.45

The major driver of the custody business in 2016 was the strong activity in the fixed income market, specifically government securities towards the end of the year. "Government bonds will continue to be very attractive securities in the Zambian market," said Chenge Besa-Mwenechanya, head of investor services at Stanbic Bank Zambia. "This is attributable to the prevailing macro-economic fundamentals, which have led to high yields for government securities."

Looking ahead, the government has indicated the need to scale down its expansionary fiscal policy and coordinate fiscal and monetary policy. "This will likely put downward pressure on borrowing costs, in turn warranting further monetary policy easing, enhancing access to credit and increasing investor confidence," said Besa-Mwenechanya.

The project to separate the CSD from the exchange is still underway, as well as the process to link the Bank of Zambia CSD to the Lusaka Stock Exchange CSD. Both of these have reached advanced stages. The long-awaited new SEC Act was finalised and signed off at the end of 2016, regulating the CSD, tackling inefficiency and enhancing investor protection.

"Given prevailing global conditions for economic growth and domestic challenges, GDP growth is projected by the World Bank to improve to 4% in 2017 and 4.2% in 2018," said Besa-Mwenechanya. "This is assuming significant strides in the economic recovery programme, improved electricity generation, implementation of an IMF programme and higher copper exports."

ZIMBABWE

UNWEIGHTED

RANK		Score
1	Standard Bank	5.21

WEIGHTED

RANK		Score
1	Standard Bank	4.73

The Zimbabwean economy has been under huge pressure in the past 12 months due to foreign currency shortages.

Chengetedzai Depository Company (CDC), the central securities depository for Zimbabwe and the Reserve Bank of Zimbabwe (RBZ), changed the settlement process from BIS DVP model one to DVP model two.

Settlement is now occurring using central bank rather than commercial bank money. The new process has banks funding net cash positions and securities positions settling on a gross basis. RBZ now oversees the regulation of the cash settlement with the Securities and Exchange Commission while retaining supervision of the securities leg of the process.

At some point in 2017, the settlement cycle is to shorten from T+5 to T+3. The market will also explore the possibility of migrating from DVP model two to DVP model three. DVP three will see settlement happening on a net basis for both securities and cash.

The Zimbabwe Stock Exchange is currently working on a process to introduce the trading of fixed income instruments on the bourse. The listing of corporate bonds and government debt will provide the domestic market with a secure mechanism for trading and settling fixed income instruments.

"For instruments issued in Zimbabwe, an improved settlement mechanism should attract more investors, both foreign and local, which is positive for the economy," said Takunda Magumise, head of investor services at Stanbic Bank Zimbabwe. The foreign currency shortages have had an impact on firms that are dependent on importing raw materials and trading stock. "This, together with the increased selling pressure, will have an adverse impact on the bourse in 2017."

Contrarians believe that local investors will seek to switch their positions from money markets to the capital market in order to hedge against a possibility of a weaker currency such as the rand being adopted.

Speakers at Middle East Asset Management Forum (MEAMF), hosted by Global Investor and the Central Bank of Bahrain, identified many opportunities in the sector from the growth of passive investment products and fintech developments including blockchain.

However, speakers also urged regulators into closer cooperation in setting standards and rules and warned of the dangers to asset management industry of uncoordinated imposition of VAT across the region.

Middle

The Bahrain Central Bank and Global Investor event identified positive developments and investment trends but warned of looming tax and regulatory obstacles. **Alastair O'Dell** and **Luke Jeffs** report

MARKET DEVELOPMENT

The MENA market has seen strong growth in fixed income funds in recent years but a panel of asset management expert argued more collaboration between GCC states and a healthy exchange-traded fund (ETF) market would boost the region's financial industry.

Charles-Henry Monchau, managing director, chief investment officer and head of investment management at Al Mal Capital, told the delegation: "Oil prices have been a negative for the region but it has been a great year for fixed income. We have seen huge issuance of GCC sovereign debt, amounting to 14% of all emerging market debt issuance."

Earlier, Abdul Rahman Al Baker, the executive director of financial institutions supervision at the Central Bank of Bahrain, said in his keynote

address the number of investment businesses registered by his authority has more than doubled in the past decade to 55.

Nizamuddin Arshad, assistant manager and head of the financial stability office at the Central Bank of Kuwait, added: "The growth in asset management has been a welcome step."

Monchau added: "The launch of Nasdaq Dubai's equity futures was a big step for the region as it effectively allows international players to hedge their investments."

The panel gave the GCC markets a mixed report however, arguing there were areas that needed improvement. Monchau continued: "It is all about putting the investor first. It would be beneficial if there were more joined-up markets here, but we are a long way from there."

Naveed Ahmed, senior portfolio manager at Bahrain-based investment bank Sico, also called for more collaboration between the authorities in the six GCC states.

Nigel Brashaw, partner at consultancy PwC, said: "We need more flows, more assets and cheaper products. Ultimately, we need more innovation. ETFs are only a small portion of the market locally but these are easy products to trade for retail investors. They also add to price transparency."

> "The launch of Nasdaq Dubai's equity futures was a big step for the region as it effectively allows international players to hedge their investments."
>
> **Charles Monchau, Al Mal Capital**

East ASSET MANAGEMENT FORUM

VAT UNCERTAINTY

The Gulf Cooperation Council (GGC) states' plan to introduce a value-added tax (VAT) regime could see rates rise over time to the levels imposed in Europe and push asset managers to domicile funds in tax-free jurisdictions.

The six GCC states have all agreed to impose an initial 5% standard rate of VAT from January 1 2018. However, there remains doubt over the treatment of asset managers and when it will come into force in each of the states. The framework agreement allows for a maximum one-year delay.

"January 1 doesn't look like the launch date for all GCC countries," said Dr Alexis Antoniades, associate professor, director of international economics faculty at Georgetown University Qatar. "It's likely that some countries will go first, such as the UAE and Saudi because they need the money and everyone else will follow. I suspect we will see some countries going first and hopefully the rest will follow soon."

Ken Healy, tax partner at consultancy PwC, said: "In the current VAT framework financial services are exempted but there is no detailed definition of financial services and if asset management falls within that. Fund firms are likely to fall in 5% rate – but this is good news for fund managers as they will be able to reclaim the VAT charged to them."

There are two other possibilities. The worst scenario is to be exempted, which means they could neither reclaim VAT nor pass it on to their customers. The ideal, and least likely, classification is to be 0% rated, enabling asset managers to reclaim VAT while not charging it to their customers.

Under the framework, Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates will charge 5% VAT for three years and then each state can unilaterally set a rate not less than 5%.

"After the three years have elapsed, it is likely we will see higher VAT rates. If the rates go up to 10-15% we could see funds going to the British Virgin Islands or the Cayman Islands where there is no VAT, but the GCC governments are well aware of this," said Healy. "People should start looking at this as a matter of urgency."

The VAT plan is part of a broader effort to diversify the GCC states' sources of income and reduce their reliance on oil exports, which have been far lower since the start of 2015 when the price of a barrel fell to around $50.

> "If VAT rates go up to 10-15% we could see funds going to British Virgin Islands or the Cayman Islands."
>
> **Ken Healy, PwC**

BLOCKCHAIN OPPORTUNITIES

Asset management has emerged as a standout use case for blockchain technology, now the initial hype around distributed ledger technology is starting to solidify into practical applications, according to CEO of blockchain start-up EquiChain Nicholas Bone.

The former Standard Chartered Bank transaction banking executive said asset management "stuck out like a sore thumb" among financial services. "Asset management is in an absolutely prime position to take advantage of blockchain. Blockchain is a disintermediation play that reduces points of friction, central points of failure and risk in the system – all of those things resonate with anyone in asset management."

Bone noted that every transaction goes through a complex set of intermediaries involving, for example, a trading desk, global broker, on-exchange broker, exchange, global custodian, sub-custodian and central securities depository as well as ancillary silos such as transfer agents and proxy voting services.

"All these silos built up over the years because there are economies of scale to be had at each point. Economies of scale create barriers to entry. Blockchain allows for those points of friction and inefficiencies to go away – and it is such a cheap technology to deploy.

"It brings more trust and less risk and friction to any transaction. We are really starting to see some creative thinking now."

Bone said incumbent firms with established operating models are the biggest barrier to overcome. The global financial centres have more deeply entrenched vested interests and tighter regulation – leaving an opportunity for nimble financial centres to leapfrog developed ones.

He added that technological change requires an ecosystem, which could be facilitated by the alignment of business interests, infrastructure and government policy in certain emerging markets.

"You don't have that in Western markets. In Bahrain, particularly, you have one regulator for the whole market – that is fantastic for efficiency – and you have an exchange and a CSD in one. Emerging markets, and particularly in the Middle East, are ripe to catapult themselves to the next level of capital markets."

Areije Al-Shaker, vice president, Bahrain Development Bank, added: "We are much better positioned regarding open dialogue with regulators and policy-makers – aligning all of these is much easier in a place such as Bahrain. Everyone from the government down are focusing on certain areas. When we focus on fintech we have a very efficient way of getting everybody around the table and development banks such as ourselves actually support start-ups."

> "Asset management is in an absolutely prime position to take advantage of blockchain."
> **Nicholas Bone, EquiChain**

INFORMATION SHARING CHALLENGE

The Union of Arab Securities Authorities (UASA) said strengthened rules from standard-setting organisation Iosco on sharing information between regulators is problematic for the region it represents.

Iosco produced an enhanced memorandum of understanding at the end of March bolstering the exchange of information between signatory authorities, including tougher standards for cooperating on market abuse and violation investigations.

Jalil Tarif, secretary general of the Union of Arab Securities Authorities, said: "It went further in terms of the types of information that you have to share with other regulators, including the freezing of assets, investigations, telephone records and banking records."

UASA has agreed to the memorandum of understanding and all its markets are committed to enforcing the standards. He added these were "very serious steps". Several countries in the region, notably Lebanon, have strong banking secrecy laws.

The Jordanian economist said UASA was also concerned about cyber-resilience and the regulation of fintech. Tarif backed Iosco standards for cyber-resilience and said the issue is "very serious" and "this issue is of great concern for regulators".

Tarif was speaking just days after the WannaCry cyber-attack infected an estimated 200,000 computers. "It is a caution to the financial system for its resilience to cyber-attacks."

He added that fintech was now "becoming very important" and in order for regulators to meet the challenge "they should make sure channels are open with industry – we cannot regulate something we do not understand". "There are huge, huge, changes and all this needs to be regulated."

Other areas of concern were investor education and protection, market liquidity, standards in Islamic finance and corporate governance, particularly related-party transactions.

"I believe that related-party transactions should not be considered something wrong unless we are sure they are not disclosed properly or comply properly with regulation," Tarif added.

Based in Dubai, the UASA's aim is to enhance cooperation between Arab capital market regulators. The 15-member organisation – including all GCC countries except Bahrain, the Levant and some African counties – works closely with Madrid-based Iosco and the OECD.

EVENT REPORT

SOUTH A MASTER

There are tough regulatory changes ahead for the continent's dominant securities finance market. Merle Crichton reports

The shift to the Twin Peaks regulatory model, buy-side collateral management and the growth of synthetics were the key themes of this year's Global Investor Masterclass in Cape Town on May 18.

› REGULATION

Twin Peaks – the initiative creating the Prudential Authority within the South African Reserve Bank (SARB) and transforming the FSB into the Financial Sector Conduct Authority – will cause a "fundamental shift" in the South African securities lending markets, according to experts.

The implementation of the model is imminent. According Ryan Proudfoot, head of prime services at Rand Merchant Bank: "It will result in the regulation of entities that were not regulated before."

The speakers vented their frustration at the delay of the regulations. But Beverley Furman, executive director of CSD operations at Strate, said that it was a "testament" to the South African regulators that they realised that the market is unique and it was not necessarily correct to just create a European-style structure. She added that for South Africa to retain its global competitiveness effective regulation is "imperative".

Proudfoot identified two possible implications of the new model, the first relating to risk capital. "Banks need to do a credit review of every counterparty they deal with on an annual basis," he said. "And, we need to hold capital against those positions that we've granted to CCPs. That in itself needs a big infrastructure and the right people on those committees."

Secondly, Proudfoot anticipated that products and services would be regulated on the same basis. "For services, maybe an entity like the Johannesburg Stock Exchange or Strate will introduce a new important element that all product providers will have to understand and comply with."

Twin Peaks also presents an operational risk challenge, another panellist highlighted, as SARB assesses banks' operational risk and requires them to hold a corresponding amount of capital.

Niven Mangrey, head of treasury trading at Standard Bank, said: "Regulation is constantly changing and you need to be nimble to see if your optimisation strategy is still relevant in the current market."

› COLLATERAL MANAGEMENT

While optimising collateral has already become important for banks facing tough regulatory rules, it is now becoming increasingly important for asset managers and corporate treasuries. Steve Everett, general manager of collateral management services at South African CSD Strate, said perhaps 300,000

FRICA CLASS

contacts will be affected by new regulation.

Standard Bank's Mangrey said managing collateral presents different challenges for the two sides of the market. "For the sell side, it is relatively straightforward to use collateral in the most efficient way to maximise returns." While he notes most banks still have separate equity and fixed income desks "it is collateral that brings it all together".

The buy side faces more obstacles. "It's not a core competency of the buy side to operate and manage collateral," said Everett. "There are certainly going to be challenges for the buy side – managing the risk, multiple curves and the demands of regulation."

Everett emphasised the potential for use of general collateral (GC) baskets; tri-party repo services can aid the creation of combined equity and fixed income baskets of collateral.

"The challenge we find with this trading platform is the fact that we need open access to mobilise our collateral pool," said Staffan Ahlner, global head of collateral management at BNY Mellon. "But some of those infrastructures have a very silo-ed approach, which is a challenge." He also noted the effect of European quantitative easing on GC baskets.

› SYNTHETICS

Regulation has also resulted in the increased use of synthetics by foreign banks looking to gain exposure to South Africa. "This is primarily due to balance sheet management and liquidity becoming more important as a result of regulation, particularly Basel III," said Brendon Johns, equity finance manager at Macquarie Securities. "Other contributing factors behind the rise of synthetics include access to markets and leverage."

Regulatory and cost pressures have resulted in some larger prime brokers re-evaluating client relationships, weighing profitability versus capital, liquidity and balance sheet consumption. On the buy side, regulation and pricing are also big factors while interest in difficult to access emerging markets continues.

PEOPLE Moves

ASSET MANAGEMENT

UBS Asset Management hires Suni Harford

Suni Harford will join UBS Asset Management as the firm's head of investments in July, overseeing close to $600bn of assets in her new role. Based in New York, she will report to Ulrich Koerner, president of UBS Asset Management. She replaces Dawn Fitzpatrick, who left UBS this year to join hedge fund Soros Fund Management.

Harford, who spent the past two decades at Citi, was most recently responsible for North American sales, trading and research across fixed income, currencies, commodities and equities and was a member of Citi's Pension Plan Investment Committee and a director of Citibank Canada.

Jonathan Clenshaw to head Lombard Odier EU institutional

Lombard Odier Investment Managers has appointed Jonathan Clenshaw to the new role of head of institutional sales for Europe, as part of the firm's push to grow the institutional business across Europe. Clenshaw joins from Deutsche Asset Management, where he spent 20 years, most recently serving as head of UK distribution and head of EMEA insurance since August 2016.

Based in London, Clenshaw will report to Carolina Minio-Paluello, global head of sales and solutions. Clenshaw will assume distribution and client servicing responsibility for European institutional clients and will be responsible for spearheading the company's strategy to further develop institutional client relationships in key European markets.

JP Morgan AM hires Tatyana Dachyshyn

Tatyana Dachyshyn has joined JP Morgan Asset Management as executive director in the firm's global liquidity division. She joins from Commerzbank in London, where she was head of global client development for securities finance, and before that led institutional sales and equity trading division at Erste Group.

JPMorgan's global liquidity arm is the short-term investment division of JP Morgan Asset Management, which provides investment products to institutional investors to help them meet liquidity investment goals. Dachyshyn will be responsible for business development in Germany and Austria. She will report to Jim Fuell, head of global liquidity sales.

Johanna Platt appointed Vanguard Australia CFO

The Australian arm of US money manager Vanguard has appointed Johanna Platt as its new chief financial officer (CFO), replacing Daniel Shrimski who moved to the firm's Philadelphia headquarters in January to become CFO for the US Retail Investor group.

Platt will commence her new role mid-year and will be based in Melbourne. She joins from Iron Mountain, a US enterprise information management services company, where she has served as CFO for the Australia and New Zealand region since May 2016. Before that, she was CFO of the Asia Pacific region for four years. Before joining Iron Mountain in 2011, Platt was a general manager for financial planning and analysis for the Australian and New Zealand business at Kraft Foods.

CUSTODY & FUND SERVICES

ACSA appoints board members

The Australian Custodial Services Association (ACSA) has announced a string of new board hires. State Street's Daniel Cheever will be joining the board as deputy chair, replacing Martin Carpenter, managing director at Citibank's Securities Services, who stepped down in February. Cheever has served as an ACSA director since December 2013. He joined State Street in 1998 and became head of client management in September 2016.

Daryl Crich of BNP Paribas will join as treasurer, replacing Gordon Little, RBC investor and treasury services director (product Asia Pacific), who is stepping down as treasurer but remains on the ACSA board. Andrew Gibson will join as the Citi Group representative.

Subramanyam to lead BNY Mellon Mifid II effort

BNY Mellon has hired Jayaram Subramanyam from Deutsche Bank as a senior project manager for Mifid II. London-based Subramanyam will implement key requirements of the EU legislation, in force from January 2018. The executive joined Deutsche in 2013 and has focused Dodd Frank and Fatca before turning to Mifid II.

Mifid II, a top priority for financial firms, aims to level the playing field in financial markets by rectifying inefficiencies, improving functioning and ensuring greater transparency and resilience. Part of his remit will be to liaise with senior BNY Mellon Markets stakeholders as well as legal and compliance teams.

Andrew Fay to head Fidelity C&CS family office

Boston-based Fidelity Clearing & Custody Solutions has named Andrew Fay as head of the family office services, after spending sixteen years in various roles in the family office team of Fidelity. He was in the team that started the family office offering in 2003 and for the last eight years was the head of national sales, recently opening the Westlake, Texas, office.

Fay replaces Ed Orazem, who will retire on July 1 after eight years in the role. Before that Orazem was MD of global wealth management at Citigroup, from 1995.

Before joining the family office division, Fay managed the new issue syndicate desk for Fidelity Capital markets 2000-03. He also held roles at FleetBoston and Bank of Boston in the 1990s.

Broadridge IM solutions hires Eric Bernstein

Broadridge Financial Solutions has appointed Eric Bernstein as president of its investment management solutions division, with a mandate to grow IM offerings, execution of strategic client and market-focused offerings as well as service delivery.

Bernstein was most recently chief customer success officer at eFront, where his responsibilities included account management, global support and product management. Prior to this role, he was chief operating officer for eFront's Americas division. He also spent nearly six years in a variety of roles at Linedata.

DERIVATIVES

PATRICK THORNTON-SMITH

Patrick Thornton-Smith quits the City

Derivatives stalwart Patrick Thornton-Smith is leaving the City of London to join a fine wine investment firm. He left Duco in May after three years with the financial technology firm, where he was latterly chief marketing officer, and has also worked at Traiana, FFastfill, Sungard and Future Dynamics as well as founding MarginClick.

"Patrick was instrumental in leading us into the listed derivatives industry," said Christian Nentwich, chief executive of Duco, who will share Thornton-Smith's client-facing duties with chief revenue officer Jeffrey Gangl.

The popular figure on the London-based futures scene will take up a non-executive directorship at Cult Wines Limited and remains a trustee of charity Futures for Kids. William Mitting, the managing director of Global Investor Group, added: "Patrick has been a pioneer of the futures markets throughout his career and has made a lasting impression on the industry."

OCC hires security expert Mark Morrison

Options Clearing Corporation has appointed a chief security officer from State Street, marking the latest management change under chief executive Craig Donohue as he seeks to overhaul the firm.

The OCC, which is the largest US clearer of equity options, said in early May it had appointed Mark Morrison into the new position of senior vice president and chief security officer.

Morrison had been chief information security officer of State Street since 2013 and before that worked for 30 years in senior roles at US state agencies including the US Department of Defense.

MATTHEW CHAMBERLAIN

HKEx appoints Chamberlain to lead LME

Hong Kong Exchanges and Clearing has confirmed Matthew Chamberlain, the acting chief executive of the London Metal Exchange for the past three months, has been appointed to run the HKEx-owned commodities market on a permanent basis, subject to regulatory approval.

HKEx and the LME said in late April Chamberlain had been appointed as chief executive with immediate effect subject to the approval of British regulator the Financial Conduct Authority.

Chamberlain, who replaced former chief executive Garry Jones when he retired from that post at the end of January, will also remain on the LME board and HKEx's management committee.

Before this he was chief operating officer and head of strategy at the exchange and, before that, the LME's co-head of business strategy.

SECURITIES FINANCE

Lance Wargo joins fintech firm GLMX

Lance Wargo has resurfaced as managing director of sales and product of fintech firm GLMX. He left his role as head of BNP Paribas' North American agency securities lending business earlier this year, but will remain in New York.

GLMX was founded by former JP Morgan executive Glenn Havlicek and provides execution technology for institutions trading secured financial transactions and other money market instruments. He joined BNP Paribas Securities Services in 2013 to head up the firm's securities lending desk. Before that we worked at E*TRADE Financial and ClearLend Securities, a division of Wells Fargo.

Colin Murphy joins Nex Group

Colin Murphy has left Goldman Sachs after 21 years to join Nex Group, the firm formerly known as Icap. The Securities finance specialist has been appointed chief commercial officer of Nex Optimisation and will also lead the newly launched regulatory reporting product.

Nex Optimisation bundled its services to form a regulatory reporting platform powered by Abide Financial, which it acquired in October 2016, primarily to meet the challenges of MiFID II. Other units in the Optimisation business include ENSO and TriOptima.

Maurice Leo returns to Deutsche Bank

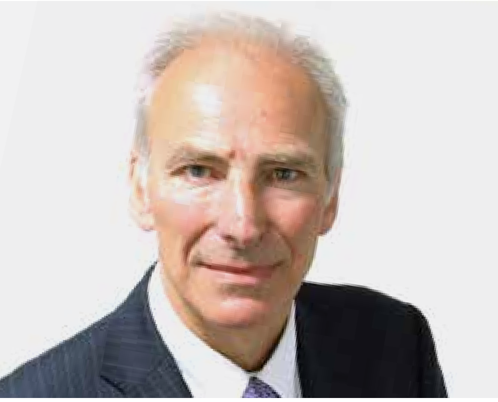
Maurice Leo has joined Deutsche Bank's agency securities lending team in London to head up European sales and marketing. The move is something of a homecoming after fourteen years at State Street, most recently as head of relationship management for securities finance EMEA, as he was originally part of Deutsche Bank's securities lending team in the late `90s.

Leo rejoined during the first quarter of 2017 and reports into Andreas Richter, Deutsche Bank's head of sales & relationship management for EMEA and Asia Pacific.

SocGen promotes Adam Cohen

Adam Cohen has been promoted to head up Americas platform sales for prime services within Societe Generale, from his role as deputy head of Americas platform sales and global head of institutional sales. Cohen has been with the bank since 2010. Before joining the firm, he worked at Barclays Capital, Lehman Brothers, UBS and Goldman Sachs.

New York-based Cohen replaces Alain Courbebaisse, former head of PB and clearing for the Americas, who in April. Courbebaisse was the chief investment officer at brokerage firm Newedge when it was acquired by SocGen in 2014.



HILTON'S CORNER

INFLATED CONFIDENCE

Anthony Hilton warns that it's time to reassess the consensus view that inflation will not reappear

One of the UK's longer serving fund managers – with a better-than-average history of avoiding the bear traps that damage glittering reputations – admitted the other day to following a simple guideline.

She is a regular attendee of investment conferences where the great and the good give their views on the opportunities, threats and challenges for the year ahead. She listens dutifully to the speakers and then scours the agenda for what is never mentioned – and that is what she worries about.

It is not the things you don't know which cause you problems, as they say, it is the things that you think you know that turn out not to be true.

This is why she is currently worrying about inflation. For 20 years now it has not been a serious issue; indeed it has been the fear of deflation, its polar opposite, which has been a major concern.

Recently, however, things have begun to change, particularly in the UK. Sterling suffered a sharp devaluation last summer following the referendum vote to leave the European Union. The higher import prices that inevitably resulted are now feeding through in rising shop prices and squeezing consumer spending.

Thus far however the Bank of England's Monetary Policy Committee (MPC) is treating the current uptick in inflation as a one-off adjustment, a contained process which will work itself out without requiring a rise in interest rates.

The MPC may be right but there are reasons to be concerned that other pressures could feed in to make inflation more persistent. The devaluation has also hit margins at legions of small businesses which buy raw materials or services from abroad. Most think they have no alternative but to pass these on – all the more so because foreign suppliers have simultaneously become less competitive.

They are likely to soon be squeezed further by labour shortages. Numbers of EU migrants are already falling before the imposition of any formal controls that may one day be imposed. This is partly because Eastern Europeans, in particular, now feel less welcome, partly because the devalued pound means they have a materially reduced amount of cash to send home. Many are choosing Germany, Switzerland and Scandinavia instead, and the more this happens the greater the skills shortage in the UK, and the more employers will be tempted to pay more to poach workers from domestic rivals.

It is also an open secret that whichever political party takes power after the election, taxes are likely to rise. This would lead to a further squeeze on disposable income and a further upwards pressure of wage demands. None of this is certain, but it is something that needs to be thought about more than it is currently.

At a recent marketing dinner hosted by a leading retail fund house the manager of its flagship bond fund managed a 20 minute presentation without mentioning inflation once. When challenged he said it was of no concern because even if it did surge it could be hedged. Indeed, it might bring further opportunities.

Well, up to a point. Inflation hedging is easy when it is low, but becomes a lot more costly if rates start to spiral – nudging 5% is something which the current generation of fund managers consider inconceivable.

Nor is that the end of the story. Inflation is toxic for fixed interest securities and any sign of it becoming entrenched is likely to provoke an adverse reaction among the millions of investors who currently believe bond funds are a safe haven. We might be surprised by how few of them need to head for the exit at the same time to cause pressure on liquidity, and at least some embarrassment for fund managers.

ANTHONY HILTON
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