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AMERICAS GUIDE

MANAGEMENT

Managing director William Mitting – Tel: +44 (0) 20 7779 8350 william.mitting@globalinvestorgroup.com

Commercial director Will Browne - Tel: +44 (0) 20 7779 8309 will.browne@globalinvestorgroup.com

EDITORIAL

Managing editor Luke Jeffs – Tel: +44 (0) 20 7779 8728 luke.jeffs@globalinvestorgroup.com

Editor Alastair O'Dell – Tel: +44 (0) 20 7779 8556 alastair.odell@globalinvestorgroup.com

Deputy editor Andrew Neil – Tel: +1 212 224 3770 andrew.neil@globalinvestorgroup.com

Senior reporter Julie Aelbrecht – Tel: +44 (0)20 7779 8368 julie.aelbrecht@globalinvestorgroup.com

Reporter Merle Crichton – Tel: +44 (0) 20 7779 8004 merle.crichton@globalinvestorgroup.com Reporter lack Ball – Tel: +44 (0) 20 779 8351

jack.ball@globalinvestorgroup.com

Contributors Ceri Jones, Paul Golden and Anthony Hilton

Design and production Keith Baldock

EVENTS

Events manager Valerija Slavina – Tel: +44 (0) 20 7779 8880 valerija.slavina@globalinvestorgroup.com

Events executive Valida Cajdin – Tel: +44 (0) 20 7779 8188 valida.cajdin@globalinvestorgroup.com

BUSINESS DEVELOPMENT

Co-head of business development Hanna DeBank – Tel: +44 (0)20 7779 8810 hanna.debank@globalinvestorgroup.com

Co-head of business development Tim Willmott – Tel: +44 (0) 20 7779 7216 tim.willmott@globalinvestorgroup.com

MENA & emerging markets director Zara Mahmud – Tel: +44 (0) 20 7779 8478 zara.mahmud@globalinvestorgroup.com

Reprints Christine Jell cjell@globalinvestorgroup.com

Divisional director Danny Williams

Global Investor 8 Bouverie Street, London, EC4Y 8AX, UK globalinvestorgroup.com

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Chairman JC Botts CEO Andrew Rashbass

Directors Sir Patrick Sergeant, The Viscount Rothermere, Colin Jones, Paul Zwillenberg, David Pritchard, Andrew Ballingal, Tristan Hillgarth

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Subscriptions

UK hotline (UK/ROW) – Tel: +44 (0)20 7779 8999 Fax: +44 (0)20 7246 5200 US hotline (Americas) – Tel: +1 212 224 3570 hotline@globalinvestorgroup.com

Renewals Tel: +44 (0)20 7779 8938 Fax: +44 (0)20 7779 8344 renewals@globalinvestorgroup.com

Customer services Tel: +44 (0)20 7779 8610 customerservices@globalinvestorgroup.com

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Searching for opportunities

Securities lending generated over \$8bn of revenue globally in 2016 – the best result in four years – as shock political outcomes, market volatility and economic growth concerns elevated shorting activity and helped beneficial owners achieve better pricing for their loans.

As a result, a number of firms have been selectively reentering the securities lending market, according to Bob Hollinger at Barrington Partners, a firm offering securities lending advice to asset owners.

"The market dynamics have been favorable and most of the vendors that offer lending services are mature, capable and highly competitive," Hollinger noted in a recent whitepaper. "While lending has slowly been making a comeback since the 2007-2008 downturn, the opportunities in securities lending have changed."

As Hollinger points out, lending opportunities are almost always associated with the borrowing of specials, those specific holdings for which there is a high demand and generates an attractive spread over the overnight bank funding rate (OBFR) or other benchmark.

While general collateral lending is still available, the loan spread relative to benchmark rates has compressed. "For firms with holdings in selected European domiciles with attractive tax benefit structures, dividend arbitrage opportunities continue to exist but at a lower rate than previously," Hollinger adds in the study *The Changing Face of Securities Lending*.

David Martocci, Citi's global head of agency securities lending, has noticed funds that have not lent previously, or perhaps had only a modest prior involvement, becoming far more interested and engaged.

Total securities lending revenues were very high last year but beneficial owners are needing to work harder to secure the rewards. *Andrew Neil* investigates

"In our view, securities lending is increasingly viewed by asset owners as [providing] the missing cash flow that can generate additional alpha without affecting portfolio composition, investment strategy and risk parameters," says Martocci. "So far in 2017, the specials market has come off somewhat due to less conviction on the short side. However, this is a markets-based business and we remain positive. There are plenty of opportunities, especially in fixed income lending given the current rising rate environment."

Risk vs return tradeoff

A New York-based executive working for an agency securities lending desk adds that interest rates should not be a huge factor in re-starting a new programme. "Many pension funds that suffered cash collateral losses during the credit crisis eventually came back but with programmes focusing on intrinsic value lending. In fact, many insisted on only non-cash collateral or ultra conservative cash overnight guidelines and, in some cases, clients even set minimum lending hurdle rates of 100bps insuring a specials-only programme."

Bo Abesamis, manager of Callan's trust, custody and

Case study

Teacher Retirement System (TRS) of Texas

Mohan Balachandran, senior managing director of asset allocation at Teacher Retirement System (TRS) of Texas, says risk remains paramount and lending has not necessarily become more relevant in the current low yield environment.

"We continue to manage our securities lending portfolio in a conservative risk-averse manner," says Balachandran. "So far in 2017, our programme

performance has been in line with expectations." TRS has had securities lending arrangements in place for decades. The fund has always made its securities lending

"The focus of a securities lending programme should be on controlling risk, not maximising returns"

Mohan Balachandran, TRS

objectives clear – risks are to be controlled and the impact on the broader investment activities of TRS minimised, while conservatively reinvesting collateral.

"We view securities lending predominantly as a way to offset some of the plan's custody and other expenses, not as a source to add value to an investment programme," TRS states in its investment policy. "The focus of a securities lending programme should be on controlling risk, not maximising returns."

Case study

Piedmont Family Offices

Jerry Davis, chief investment officer at Piedmont Family Offices and former chief executive of New Orleans Employees' Retirement System, from 1986 to 2011, says the financial market is constantly evolving, in search of new and better sources of returns for both the sell side and the buy side.

"The erosion of returns on money market investments has continued to feed the trustees' desire to generate returns from idle assets," says Davis, adding that funds should look for balance in any agreement, and set realistic return expectations from lending programmes.

"Securities lending is unlikely to have any meaningful impact on your overall rate of return. Done well, it provides evidence of the fiduciary's efforts to manage assets prudently. Done unwisely, lending may provide only embarrassing losses." "The erosion of returns on money market investments has continued to feed the trustees' desire to generate returns from idle assets"

Jerry Davis, Piedmont Family Offices

Davis advises investors to lock-down the real value of any custody fee reductions; first consider the likely cost/benefit of forsaken loss-immunisation and then monitor the accuracy of your estimated returns. "Securities lending is not a set-and-forget strategy," he adds

securities lending group, says decisions are ultimately boiling down to costs and oversight resources. "We educate our clients on the full range of programmes, risk/reward outcomes and opportunities available to them – from a de-risked, pure intrinsic value lending approach to the maximum risk Callan believes is prudent to pursue.

"Based on those options, it's up to the plan sponsor to assess the risk/reward trade-off that they are willing to live with. Once they have the information, they have to make the decision. There's no such thing as risk-free in securities lending. When there is a risk, that risk needs to be managed and requires the plan sponsor to take an active role in oversight." Abesamis adds that the ability

"There are plenty of opportunities, especially in fixed income lending given the current rising rate environment"

David Martocci. Citi

to do this by allocating resources often dictates whether a fund will pursue a specific strategy, or indeed lend at all.

Indemnification

Regulation, the macroeconomic environment and new ways of doing business are changing the economics of the securities finance. The cost of providing indemnification (essentially insurance against counterparty default) to clients, for example, is rising for agent lenders while the borrowing prime brokers have become more selective with counterparties and trades due to balance sheet constraints.

Citi's Martocci says there are undoubtedly added costs involved in providing indemnification today, primarily due to regulation. "The need for indemnification depends on the organisation, board representation and experiences with securities lending the past."

Callan's Abesamis notes that if clients want to pursue a programme without indemnity because

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"I don't think peer-topeer or central clearing for securities lending have yet evolved to a point where our clients are totally comfortable" *Bo Abesamis, Callan* of added cost, it means they have to take a larger role in risk management, particularly counterparty risk management. "As well as a layer of protection, borrower default indemnity provided by a custodian bank or a third-party agent helps lenders manage their assessment of borrowers.

"For Erisa [under Employee Retirement Income Security Act of 1974] plans that don't take the indemnity, the underlying responsibility of vetting, evaluating, and reviewing borrowers would end up residing with the plan sponsor. In this situation, resources again become an issue."

Non-traditional routes

As financing markets mature, certain beneficial owners are continuing to monitor non-traditional lending routes such as peer-to-peer & CPPs. The Teacher Retirement System (TRS) of Texas is one beneficial owner that is interested in this option. "TRS is following developments in this space, and we will continue to evaluate them in the future," says Mohan Balachandran, senior managing director of asset allocation, adding that the fund has no plans to lend without indemnification against borrower default.

According to Abesamis, certain Callan clients are actively looking at alternative routes to market, but they are not yet embracing new options such as CCPs and peer-to-peer. "We do have a few clients that are conducting peer-to-peer types of transactions on an opportunistic basis, but they involve a large inventory of securities with sophisticated, disciplined risk management regimes. However, I don't think peer-to-peer or central clearing for securities lending have yet evolved to a point where our clients are totally comfortable with them."

Martocci says Citi is engaged in peer-to-

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peer type transactions. "We have been for some time. In many cases, this is simply an agent trade. If brokers no longer want to participate in certain financing transactions, the market will find a way to do business. Clients still need financing and leverage, so intermediaries such as ourselves are going to engage with them. The business is resilient."

Case study

San Francisco City & County Employees' Retirement System

In April, investment staff at San Francisco City & County Employees' Retirement System (SFERS) voted to end the fund's securities lending programme. A memo, seen by Global Investor, said stock loan operations will wind down over the next few months as the \$20bn fund switches custodians from Northern Trust to BNY Mellon.

The pension fund has earned \$118m through securities lending since the programme began in 1996. However the ride has not always been smooth; securities lending led to \$80m of losses for the fund during the financial crisis. A recent review, involving consultant Callan, found that SFERS could modify its programme to make it more conservative but doing so would reduce returns to \$3m annually – compared to \$4.2m achieved in 2015.

"Boosting our income from securities lending would require putting a greater volume of lower quality securities on loan, which increases the risk of incurring a large loss," stated the memo, signed by SFERS chief investment officer William Coaker. "We believe the retirement board, staff and our consultants need to focus our time and resources on the aspects of the portfolio with larger risks and expected returns than securities lending, whose risks can occasionally be surprising and whose expected returns are very low."

In addition, Coaker noted it has less control of its liquidity due to securities lending, because it is not choosing which securities to lend. He recommended that securities lending be re-evaluated if short-term interest rates rise to the level seen before the financial crisis.

"Boosting our income from securities lending would require putting a greater volume of lower quality securities on loan, which increases the risk of incurring a large loss" William Coaker. SFERS

A senior New York-based executive working for an agency securities lending desk, speaking on the condition of anonymity, says the move was unexpected: "This is a surprise firstly because they went through the effort to hire a very good and experienced consultant in Callan and conduct a

went through the effort to hire a very good and experienced consultant in Callan and conduct a very thorough search looking at both third-party lenders and bundled solutions. Therefore, they already did the heavy lifting and the effort to implement a new programme that met their new conservative parameters. It should have been relatively guick and straight forward."

Another US-based securities finance expert described SEFS' decision as unique and isolated, adding that it goes against the industry trend of increasing participation in securities lending. "If anything, we see things going in the opposite direction. Funds that have not lent previously are engaging and expressing interest. Opportunistically, with more of a yield curve, it's a good time for clients to be engaged. However, it becomes challenging when clients haven't grown or developed programmes. Invariably they become stagnated and, as a result, are not able to earn the revenue they once did."

Demand to borrow ETFs is booming

remendous growth in the ETF market in the past few years has benefited securities lending with 51 new ETFs launched so far in 2017 (as of 8 May) and there are now nearly \$3trn in assets for US-listed ETFs. The growing industry is seeing much attention and many changes. For example, the SEC approved trading for the first time for quadruple-leveraged ETFs. Both equity and fixed income ETFs saw a net inflow in 2017 and nearly \$171bn overall has rolled into the US ETF industry. In the securities lending market, ETFs have shown increased demand as volatility has surged with equity and bond markets remaining bullish and stable.

Overall, the ETF industry is seeing signs of maturation. Investors and advisors are looking to move money from high-cost vehicles and into ETFs. The ETF market has allowed for increased liquidity and diversification, from large institutional investors to individual investors. Securities lending interest is high for ETFs and as the asset classes continues to grow, so does the individualised focus on coverage.

US equity ETFs remain the dominant players with the highest inflows and largest AuMs. The drop and surge of demand in lending US equity ETFs has been correlated with macroeconomic events. With Donald Trump being elected President, many of his policy propositions have reflected in demand and changes in ETF lending markets.

Lending up to November 8, and the weeks after, EWW, the ETF seeking to provide investment results that correspond to the performance of the MSCI Mexico, saw a surge in demand. Biotechnology and pharmaceuticals have also seen increased volatility since Trump's postelection comments on the industry. In particular, XBI, the SPDR S&P Biotech ETF, saw increased demand and utilisation after November 8. International equity ETFs have also seen lending demand due to country-specific risks, US foreign policy stances and macroeconomic indicators.

The iShares MSCI South Korea Capped ETF, EWY, has seen additional demand following political volatility. iShares MSCI France ETF also saw increased demand in recent weeks. Volatility in markets increased leading up to the French election and uncertainty, causing a spike in demand for EWQ. Fixed income ETFs have also been a growth story as AuM quadrupled since 2010 to \$649bn, as of April. Junk bond ETFs have seen specific increases since 2014, evidenced by HYG iShares iBoxx \$ High Yid Corp Bond, with \$18.9bn in AuM and JNK, SPDR Barclays Capital High Yield, with \$11bn in AuM, as of April 25 2017.

Emerging market bond ETFs have received over \$5bn of inflows so far in the first quarter of 2017. Although JNK has seen a drop in utilisation and spread, HYG has remained a popular name for lending. Correlated with oil prices and the interest rate expectations, HYG has seen steady demand throughout the year.

Under pressure

Hedge funds can maintain profitable relationships with their prime brokers, says *Andrew Neil*, as long as they recognise the regulatory pressures on investment banks

edge funds have made conscious efforts in recent years to better align with their prime brokers on return on assets (ROA) metrics, improve efficiency of long and short positions and reduce balance sheet consumption.

In many cases, they've not had much choice. Almost 60% of managers polled by Ernst & Young at the end of 2016 said their prime brokers had requested fundamental alterations to their relationship to keep it economically viable.

The big three of Basel III – the Leverage Ratio, the Liquidity Coverage Ratio (LCR) and the upcoming Net Stable Funding Ratio (NSFR) – are the main culprits creating uncertainty over the cost of financing and the availability of bank balance sheet capacity. All the while, access to physical bank leverage remains crucial to hedge fund strategies and profitability.

David Geffen, founder of California-based hedge fund advisory firm Geffen Advisors, says there continues to be significant demand on prime broker balance sheets, but on a relative basis there is more financing capacity available to hedge funds today than was the case 18-24 months ago.

"I'm seeing many mid-sized and smaller hedge funds getting less access to dealer resources than previously but, generally speaking, balance sheet is still available to these mid-sized and smaller funds. The main issues for mid-sized and smaller hedge funds is about the price of the prime broker balance sheet, and whether they can get access to all of the other resources they desire [analysts, conferences etc.] as well as to all of the products they would like to trade, such as futures and OTC derivatives.

"The largest hedge fund managers are typically very important customers for many

HEDGE FUNDS

prime brokers both in their prime brokerage businesses and across other business segments in their firms. These large hedge fund managers still have significant leverage in their pricing negotiations with the prime brokers and, generally speaking, they get much better rates than the smaller funds."

> Paul Calderone, chief operating officer at Hazeltree – a firm offering treasury management tools to hedge funds – says while all major prime brokers pride themselves on client servicing, the size of "wallet", in addition to liquidity and balance sheet footprint, factor into the value of a given relationship with a hedge fund.

> > "Post-crisis, regulatory-driven balance sheet constraints compelled some prime brokers to systematically (sometimes arbitrarily) sever client relationships," Calderone explains. "This was coupled with an intense focus on ROA per relationship, which seems to have subsided in the past year or so."

Treasury function

As Ernst & Young's study notes, generally the prime brokers were able to address their most troubling economic relationships in 2015, which meant there was less need for pricing discussions in 2016. More recently, certain prime brokers are finding themselves with capacity that they did not anticipate, which is allowing them to be more flexible when

dealing with pricing discussions with clients.

Even so, hedge funds haven't waited around. Managers are increasingly setting up a central treasury function as financing, cash and collateral management becomes more complex. They are no longer comfortable with only having a limited number of prime broker relationships available to them for concern of facing capacity "The largest hedge funds – perhaps 30-40 – have treasury teams where all of their interactions with the Street... are centralised"

David Geffen, Geffen Advisors

constraints when attempting to put on a trade. This increased diversification is effective in mitigating both counterparty exposure and yielding more financing options. However, it certainly adds complexities with regards to relationship monitoring and supervision.

"Generally speaking, the largest hedge funds – perhaps 30-40 – have treasury teams where all of their interactions with the Street in relation to prime brokerage and financing are centralised," says Geffen. "These teams often have

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different names, such as treasury or securities finance. Hedge funds that do not have these centralised treasury functions typically distribute their Street interactions."

For example, the prime broker relationships may be managed by the CFO – or he or she may share the responsibility with the trading function. Alternatively, the CFO will often negotiate standard pricing terms with the prime brokers – debit rates, short rates for general collateral, custody charges etc. – while the trading function will typically negotiate initial rates for hard to borrow stocks.

Another option would be either the trading function or operations team monitoring hard to borrow rate changes over time and renegotiate those rates with prime brokers as they deem appropriate.

"Simply stated, the potential benefits to a hedge fund from proactively managing stock lending come in terms of reduced shorting costs and the potential to generate revenue on valuable

"Prime Brokers in general have become more transparent, which benefits the industry as a whole"

Paul Calderone, Hazeltree

long positions," Geffen says. "Hedge funds should understand what the market rates are for their short positions. Once they have that knowledge, they can decide whether to ask their prime brokers to rerate their positions when market rates diverge from the carrying prices of their short positions."

If a hedge fund happens to be holding long positions with significant value, and if their holding period is expected to be sufficiently long, Geffen says the hedge fund may want to enter into direct securities lending relationships in order to monetise some of the value in those positions.

According to Hazeltree's Calderone, the most immediate benefit of proactively managing stock lending rates can be cost savings through managing the slippage inherent in borrow costs, on both the long and short sides of the book. "Prime Brokers in general have become more transparent, which benefits the industry as a whole," he adds.

Alternate routes

Although central counterparty clearing houses (CCPs) and peer-to-peer transactions are less mature options for hedge funds looking for leverage, they appear set to coexist with bank leverage and derivatives in the future. As financing markets mature, these routes may become increasing popular.

"I will never be able to afford the rolodex of a shop such as Deutsche Bank or JP Morgan," says one New-York based manager working for a hedge fund with close to \$13bn in assets under management. "I need to keep them on my side for difficult borrows. But that doesn't imply that all my business is net additive to them [after all costs]."

The individual, who wishes to remain anonymous, expects that over time the industry will find a balance. He expects some parts of the business to be done via peer-to-peer, such as hedge funds borrowing cash. Likewise, some parts of the business he expects go to CCPs, such as shorts for corporates and HQLA repo/reverse repo. Meanwhile, he anticipates the traditional prime broker providing capital introduction and operational support for a fee.

HEDGE FUNDS

"That allows the prime broker to maximise his return on his highest valueadd collateral management and relationship skills, while reducing his use of constrained balance sheet and capital resources," he adds.

Brock Bell, vice president of treasury and portfolio finance for Capstone Investment Advisors, is wary of potential impacts of hedge funds financing outside of their prime broker relationships through peer-to-peer lending. "I think the bulge-bracket banks are very smart around analysing each hedge fund client's ROA, and if their clients were to cut them out of financing revenue, the prime brokers would likely look to make up that revenue somewhere else, such as raising execution fees, raising clearing fees, or asking for another incremental piece of business.

"In addition, many hedge funds rely on their prime broker for services such as capital introduction, and many fundamentally-driven hedge funds rely on their prime brokers for research and corporate access. From a hedge fund client perspective, maintaining an ROA that meets your prime broker's hurdle rate, a mutually beneficial mix of business, and a strong overall partnership is extremely important."

Geffen says he sees some hedge funds lending through non-traditional routes such as peer-topeer, but he is not seeing hedge funds borrowing from these sources. "With the exception of a few large hedge fund managers that have affiliated broker-dealers, I'm not seeing hedge funds borrowing securities from non-traditional sources," he adds.

Hazeltree's Calderone, meanwhile, suggests balance sheet constraints are here to stay so certain large hedge funds have shown a willingness to allocate a portion of their business to alternative structures. "These may include peer-to-peer or principal borrowing versus large asset owners though it is still very early days," he admits.

Kevin Smith, founder and chief investment officer at Crescat Capital, a Denver-based hedge fund, is sceptical. "Does not seem worth the risk to me. Stock loan has always been the domain of the custodian, which is the gatekeeper. Funds cannot really go anywhere else unless they want to take on a new counterparty risk. Peer-to-peer seems highly speculative." "If their clients were to cut them out of financing revenue, the prime brokers would likely look to make up that revenue somewhere else"

> Brock Bell, Capstone Investment Advisors

Prime custody

Going forward, big global banks seem set to increasingly offer what is often described as the ultimate multipurpose product: prime brokerage integrated with global custody — prime custody.

"This prime custody activity even allows hedge funds to keep in touch with their old friends, the prime brokers, as custodians use their technological muscle to move assets around from collateral accounts to portfolio accounts and back again, facilitating access to leverage," Scott Coey, head of EMEA relationship development – hedge fund, ETF and structured products at BNY Mellon wrote in a recent note to clients.

"The ultimate impact of the partnership between hedge funds and global custodians is one which will truly echo into the future," Coey added.

Smart money

Oversupply in the US securities lending market is putting pressure on fees, says *Ceri Jones*, but beneficial owners still have plenty of ways of boosting programme returns

S securities lending market supply is incredibly robust with pension funds, insurance companies and asset managers all looking to grow their revenues. New lenders are coming into the market – even ones that had been vocal against stock lending in the past – as they seek to enhance returns and offset increasing costs.

Unfortunately, however, the demand side of the business remains subdued, owing to the continued impact of regulations on transaction costs, and macro-economic factors such as



steadily-rising equity markets and a lack of long/short hedge fund activity. M&A activity this year has also been muted.

"It is a two-sided coin, with a lot of supply from beneficial owners but a reduced number of places to lend those securities," says JPMorgan global head of agent lending product and portfolio advisory Paul Wilson. "As a result of the oversupply, generally spreads are declining. If you look at the equity market, the number of securities trading specials is down maybe 10-20%. On other hand, there are more specials in fixed income than seen historically, but they do not offset the current decline in equities."

Not only are Treasury trades one-week wonders, but if the economy continues to improve, there will be a reduction in issuance.

Historically, the US securities lending market has been double the size of the rest of the world's markets and dominated by cash collateral. That is changing with cash collateral falling from 80-85% to around 60% today.

"The sheer size of the US market in terms of listed stocks and trade volumes makes it unique compared to other markets in the Americas and indeed anywhere else for that matter," says Keith Haberlin, global head of securities lending at Brown Brothers Harriman.

"That means dedicated resources and robust technologies are prerequisites to maximising revenue in the US. We've

invested significantly in Equilend's Next Generation Trading platform, which has allowed us to automate 50% of the flow where pricing is commoditised. That frees up our traders to focus on higher value trades where they can make a difference on the fee. Automated trading is becoming increasingly important given the growth in quant funds, which require rapid execution."

As fees are squeezed, there is a good deal more transparency in structuring and costing transactions. "In terms of fee splits, one size does not really fit all anymore," explains Wilson.

"Costs vary considerably and depend on asset class, market, collateral, borrower, specials and general collateral (GC). Clients are looking at these transactions in a much more transparent way and structuring their lending programmes accordingly."

Term opportunities

There are a number of trade opportunities where additional revenue can be generated through the resulting improvement in engagement, such as scrips where the beneficial owner elects to



take cash and is able and willing to give an early election of their intent to take the cash option.

Term trades for high-quality liquid assets (HQLA), undertaken by long-term investors such as

"Dedicated resources and robust technologies are prerequisites to maximising revenue in the US"

> Keith Haberlin, Brown Brothers Harriman

pension funds, insurance companies and sovereign wealth funds, which are willing to commit to holding assets for the term duration, can also boost revenue by two times or more over GC rates, for say a six-month duration.

In Canada, business is transacted against a broad set of collateral and there are a greater variety of fixed income trading strategies, and here too, the trend has been to more tailored securities lending programmes based on the client's risk-return profile.

"The demand for HQLAs, specifically US Treasuries and Canadian government bonds, continues to play an important part in securities lending," says Phil Zywot, managing director, Canada regional trading

head, BNY Mellon Markets. "With Canada being one of the few remaining AAA-rated countries, demand for Canadian government bonds has hit new all-time highs for our clients. We expect this trend to continue given the current regulatory environment."

In emerging markets such as Brazil and Taiwan, a beneficial owner provides trade date or pretrade date notification of their intent to sell securities on loan, and the revenue generated can be materially higher than in developed markets. However, Brazil remains out of scope for most non-domestic lenders given its CCP model. Smaller still, Mexico centers around a small group of approximately 20-30 stocks and is driven by directional demand.

Regulatory capital

By and large, beneficial owners continue to desire indemnification as part of the agency lending offering, despite rising costs as a result of Dodd-Frank and Basel III, and agents have largely responded by offering two forms of their lending services, one that includes indemnification and one that does not.

"Most clients still desire indemnification, but there is a population prepared to consider going without it," says Bill Kelly, head of agency securities finance, BNY Mellon Markets. "This small group are what I'd call more highly engaged and usually have risk discipline in their organisation so they can conduct their own modelling and reviews on how valuable indemnification is to them."

Lending agents are also engineering arrangements where costs can be kept down or extra revenue generated through a CCP or using peer-to-peer lending.



"The CCP's purpose is to step in as borrower to the lender, and lender to borrower, and insulate both parties against losses to the counterparty that they traded with," says Matt Wolfe, OCC vice president of new products and business development.

"This novation means that the credit rating of the CCP – AA+ or better – is substituted for that of the original counterparty. The superior credit rating reflects a host of tools that the CCP has to manage the default of clearing participants. Indemnification costs against a CCP with a superior credit rating are cheaper and will help

to offset the increased costs caused by Dodd-Frank."

However, so far the increase in CCP volumes has been driven by broker-to-broker business and not by traditional agent lending activity. "For that to change the CCPs will need to make some adjustments to their model chiefly to eliminate the need for beneficial owners to post initial margin and to facilitate the reinvestment of cash collateral," says Haberlin.

"However, given the capital benefits that accrue along the chain, there is a common interest in

the model working and I believe it will gain some traction over the long term particularly for GC business where the capital savings are most impactful."

Peer-to-peer lending

Peer-to-peer is much talked about a few years away from significant traction. BNY Mellon for example is conducting due diligence and in talks with DBVX, the electronic peer-to-peer market for secured deposits and collateral transactions.

"We have seen an increase in peer-to-peer lending in Canada, much of which is being driven by regulatory changes and constraints," adds Zywot, "Increased costs faced because of these changes have resulted in "Agency lending programmes still benefit from the size, scale, stability and anonymity that peer-to-peer relationships lack"

Phil Zywot, BNY Mellon

higher fees for agency lending transactions which, in turn, has had borrowers consider cheaper alternative forms of borrowing, such as peer-to-peer.

"Given different regulatory requirements or lack thereof, peer-to-peer lending has increased in popularity. Having said that, there has not been a noticeable impact on Canadian agency lending programmes to date. Agency lending programmes still benefit from the size, scale, stability and anonymity that peer-to-peer relationships lack."

Looking forward, a rising rate environment should be positive for the US securities lending market, spurring stock picking both on the long and short side. Sectors especially sensitive to interest rate increases such as consumer credit and auto loans should come under pressure creating directional demand and corporate bond demand should increase in line with yields. Rising rates also afford reinvestment opportunities particularly for those lenders that have the appetite and flexibility to go further out on the yield curve.

Canada has experienced divergent monetary policies to the US with many economists predicting that interest rates in Canada will remain unchanged this year. Despite that, there are still spreads to capture in the Canadian reinvestment space.

Low volatility tests US equity securities financing market

Participants

- Rich Marquis, Americas (excluding Canada) Regional Trading Head for Securities Finance at BNY Mellon Markets
- Phil Zywot, Canada Regional Trading Head, Securities Finance at BNY Mellon Markets
- Pat Garvey, Global Co-Head of Fixed Income Trading at BNY Mellon Markets

s it fades into history, 2016 is assuming the guise of a vintage year for securities financing – at least relative to the tepid market conditions in the US so far during 2017. The first 10 months of 2016 saw strong – albeit declining – levels of market volatility driven in part by geopolitical events such as the UK vote to leave the European Union and the US presidential election.

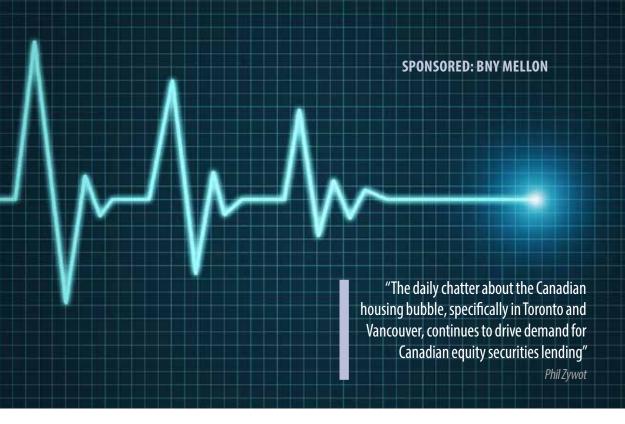
This volatility largely dissipated toward the end of the year as November witnessed the start of the sustained equities rally that continues to the present day, weakening investor appetite for equities securities financing, especially in commodity-related securities.

"In light of these sub-optimal market conditions there is a single theme that drives the ability to outperform the competition: collateral flexibility"

Rich Marquis

Despite these challenges, Canada has navigated this year's choppy waters relatively deftly. Demand for resource sector securities financing has diminished with the ongoing improvement in commodity markets, but concerns over a possible housing bubble in the nation's largest cities has created incremental demand for securities lending in Canada – as has the reemergence of specials.

With at least two more interest rate rises anticipated from the Federal Reserve before year's end and speculation over how much longer the US equities rally can sustain itself, the outlook for securities financing markets across the Americas during the remainder of 2017 is currently stable, at best.



US equities: A lack of conviction

If one term succinctly captures how 2017 has developed in the US equities securities financing, it is "lack of conviction". Industry veterans attest that current conditions – characterized by a dearth of shorting activity amid waning volatility – have not been witnessed in the US equities market since late 1993.

In recent months, demand for equity securities lending has taken on a similar look to the latter part of 2016, where ETFs focused on main indices and high-yield bonds were in strong demand. This macro style of hedging has been a recurring theme in the ever-ascending US equity market this year.

"In the US, the equity finance market has been acting strangely, and requires careful navigation to optimize returns. There are fewer opportunities in securities with high intrinsic value and inventory is at a historic low," explains Rich Marquis, Americas (excluding Canada) Regional Trading Head for Securities Finance at BNY Mellon Markets. "In light of these sub-optimal market conditions there is a single theme that drives the ability to outperform the competition: collateral flexibility."

Collateral flexibility can take a number of forms: the ability to move further out along the yield curve for cash reinvestment, the ability to expand the offering in the non-cash space, or it could mean giving a level of optionality in the duration of a trade.

"While for some beneficial owners the decision to add or extend collateral flexibility is an internal one, many are governed by rules that constrain that expansion. With potential changes being considered to US collateral regulations like rule 15c3-3 some of these constraints could be addressed," says Marquis.

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US fixed income: Grappling with downward pressures

Regulatory reform and the ability to manage balance sheets are continuing to have a significant impact on participants in US fixed income markets in 2017.

Since money market reform rules were implemented in October 2016, over \$1trn in prime fund assets has transitioned into government money funds, creating significant downward pressure on General Collateral (GC) levels.

Triggered by the US presidential election and combined with renewed anticipation of a stronger US economy and a December rate hike, the market also witnessed a strong sell-off in US

"The market has priced in a near-certainty of a Fed hike of 25bps for June 15, as well as another later in the year"

Treasuries during the last two months of 2016. GC levels remained soft at the start of 2017 with ongoing demand for government repo and a reduction of Treasury bill supply.

That reduction was attributable to constraints stemming from the US debt ceiling suspension agreed in 2015 which expired on March 15. As a result, over \$150bn in US Treasury bills were paid-down in the first twoand-a-half months of the year. The decrease in supply and government money fund liquidity created further pressure on overnight GC levels during this time period.

Pat Garvey

"The first half of 2017 was highlighted by a continued US equity rally, while the US bond market operated more cautiously, awaiting updates on the Federal Reserve's fiscal and monetary policies. Continued strong employment numbers and a surprisingly high CPI have the Fed aggressively signaling a more hawkish near-term policy. The market has priced in a near-certainty of a Fed hike of 25bps for June 15, as well as another later in the year," says Pat Garvey, Global Co-Head of Fixed Income Trading at BNY Mellon Markets.

Canadian equities: Market charges on amid diminishing returns

The Canadian equity lending sector continues its forward progress from last year despite the rebound in the commodity sector weighing down on securities financing returns.

The volume-weighted average fees for Canadian equities more than doubled within a year of the commodity correction, but demand for the resource sector leveled off with the corresponding rebound and stabilization of commodity prices that occurred in the first quarter of 2016.

"Today, the daily chatter about the Canadian housing bubble, specifically in Toronto and Vancouver, continues to drive demand for Canadian equity securities lending. With housing prices soaring, demand has been growing for securities related to real estate, such as financing companies. Some have questioned the potential continuation of higher housing valuations and hence the viability of some of the alternative mortgage lenders. This has put the sector right in the cross hairs of short sellers," says Phil Zywot, Canada Regional Trading Head, Securities Finance at BNY Mellon Markets.

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Synthetic innovation

The increasing accessibility of synthetic products means they are gaining favour with alternative and institutional investors. *Dan Barnes* reports

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SYNTHETIC FINANCE

nvestment fund managers in the Americas are being offered an increasingly wide range of synthetic products and are viewing these as increasingly attractive routes to gaining exposures. Swaps are providing financing for trades that were previously the preserve of more complex physical transactions, while futures are offering lower-cost alternatives to certain swaps.

Physical access to instruments via securities lending and repurchase agreements (repo) is still fundamental to portfolio optimisation, and supports collateral provision. But dealers are keen to also provide synthetic alternatives in order to meet client needs in the most efficient way.

"We see collateral optimisation as the end goal and the various wrappers that we offer are the tools to achieve that end goal," says Jurrie Reinders, head of structured equity finance at Societe Generale. "So when we face our clients we do not actively differentiate between securities lending, repo or synthetics, either for single names or indices. They will be served by one desk."

Regulation has added to the cost barriers associated with certain tools. The Dodd-Frank Act requires that swaps be subject to central clearing where appropriate, with initial and variation margins applied as a risk measure whether the derivatives are cleared or traded bilaterally. The additional costs this imposes has had an effect on the appeal of more complex instruments to investors.

"We have seen a shift towards listed products away from OTC products for flow instruments," says Julien Climent, senior trader for structured equity finance at Societe Generale. "The introduction, and continued use, of initial margin and increased requirements for CSAs [credit support annexes] between financial counterparties have led to a large shift to listed products and we have captured a significant part of these flows."

At the same time the increased capital requirements of Basel III have affected the use of repo, a major source of collateral financing.

Pressure on repo

The net stable funding ratio (NSFR) and the liquidity coverage ratio (LCR), which impose standards for calculating liquidity, both have a direct impact on the repo market. The NSFR penalises short-term funding, increasing the cost of short-term repo, and reduces the supply.

The LCR makes short-term funding less attractive to banks. Meanwhile, holding high-quality liquid assets (HQLA) is made more attractive so consequently firms strive to find the right assets to meet LCR requirements around the reporting date, straining supply.

"By limiting the financing activity to priority accounts and netting large amounts of their transactions, banks have effectively reduced their net balance sheet by 80%," says Stephen Malekian, head of US business development at repo platform Elixium. "You can see that allocating the 20% of balance sheet that is left across the largest accounts at the banks, there will be a lot of institutions that are essentially going without."

He says that this is encouraging asset managers to look at alternative methods of supporting collateral access, including platforms such as Elixium. "They now have the option to do this

"Initial margin and increased requirements for CSAs between financial counterparties have led to a large shift to listed products" Julien Climent, Societe Generale

SYNTHETIC FINANCE

business with other buy-side firms," he says. "You no longer need a financial institution to stand in the middle of that trade as credit intermediator, at an off-market price, to gain access to the financing markets."

Sunil Hirani, co-founder and chief executive of interest rate swap-trading platform trueEX, says that his firm is also seeking to take advantage of the problems existing in bilateral markets by providing electronic access to a wider range of tools. "We started with swaps, rolled out swaptions and our goal is to expand into cash, government debt and then into repo and to provide futures and packaged transactions," he says. "We are providing access to buy-side firms so that they can execute and process their entire rates book. When we started rolling out swaptions, a lot of clients talked about inefficiencies in the repo space, so we are pursuing that."

Yet there are indications that sell-side firms in the US are coming to terms with the impact that

"European banks are currently somewhat less advanced than their US counterparts in re-optimising their business models"

> Yves Mersch, European Central Bank

regulation has had on their own use of repo more effectively than in other jurisdictions. "European banks are currently somewhat less advanced than their US counterparts in re-optimising their business models in the face of [the LCR and NSFR]," said Yves Mersch, European Central Bank executive board member, at the GFF summit on January 26 2017.

Consultancy Finadium noted in a recent report that because dealers have typically struggled to get the right levels of HQLA on their balance sheets at quarter end, rates have spiked. Yet in December 2016, as US dealers closed out their books for the year, while optimising their financial and risk capital ratios, "there was no explosion in spreads nor scramble for cash," the report states. "Banks were largely prepared for their need for cash and HQLA, two inputs into calculating the Leverage

Ratio and LCR. While not all banks have yet to incorporate the NSFR, this did not seem to matter as far as repo was concerned."

This implies the repo market will see less pressure from sell-side demand, somewhat improving its ability to support the buy side.

Standardised documentation

While swaps users have been challenged by the increased costs imposed by regulation, asset managers can leverage International Swaps and Derivatives Association (ISDA) master agreements to get access via a dealer to innovative products that offer exposure. "Most hedge funds have three-to-five prime brokers, and eight or nine ISDA relationships," says Tim Collins, head of delta one sales at ING, says. "Once you get the ISDA in place you don't have to build out the prime broker side, you can get access to the expertise that ING has with very little beyond the ISDA."

The development of new swaps tools is increasing interest in this approach. For example, Bloomberg's launch in March 2017 of standardised total return swap (TRS) contracts based on the Bloomberg Barclays Indices of high yield and investment grade US credit offers a new route to potentially illiquid assets.

The director for US fixed income at a major Canadian asset manager says: "Instead of going

out and buying a basket of individual bonds, you can get credit exposure via credit default swaps (CDS), you can get exposure via various credit exchange-traded funds (ETFs) and now you can get exposure via TRS, which look like they are going to start being much more liquid."

Although swaps can provide access to emerging markets, other routes to Latin American markets have improved in recent years. When capital controls are lifted, as in Brazil in 2013 and Argentina in 2015, the need for synthetic access reduces. On Brazilian BM&FBovespa market cash trading accounted for 96.3% of total trading value in February and foreign investors accounted for 49.7% of market participation.

David Lewis, head of Americas trading at Franklin Templeton Investments, says: "We don't use derivatives to get exposure to Latin America equities. [Historically] it was really only used in those markets that had currency restrictions, such as Argentina at one time. We operate directly in most of these countries and in Brazil specifically, where we have a local office that trades futures and options."

However for hedge fund managers without the infrastructure to put feet on the ground across markets in the Americas, access via synthetic instruments is still an appealing option. ING recently launched a portfolio swap platform that allows it to mimic a physical prime broker, allowing a buy-side firm to be long and short in the same swap.

"One of the key benefits is that it's much quicker to set up than a physical prime broker. It requires far less infrastructure on the buy side than a physical prime broker. It's basically covered under a market-standard ISDA and a CSA instead of a bespoke prime brokerage contract," says Michael Baudo, ING's regional head of financial markets Americas and global head of securities finance. "Portfolio swaps are much better at market access, especially for emerging markets such as Latin America. You have a lot more flexibility to do offshore transactions to access an illiquid or emerging market in a much faster fashion."

Where barriers exist to liquidity or accessibility that are hard to overcome using physical instruments, derivatives can be structured to overcome them. Increasingly, listed instruments that do not carry the collateral costs of swaps are helping to alleviate the burden on the trading desk. "Smart traders are looking at derivatives and cash, looking up and down the capital structure, and are able to go long and short," says the Canadian asset manager. "Optionality adds value – if you have 50 tools you could use and someone else has one tool, you will win."

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Global platform

Anand Krishnan, Managing Director, Head of Securities Finance Americas, Natixis, says its unified cross-asset approach allows it to meet the global financing needs of its clients

How has the securities finance business changed in response to the current regulatory landscape? How will Natixis continue to grow in this environment?

"Hedge funds are realizing that if they trade several asset classes it helps to have a single point of contact that can provide innovative, cross-asset solutions" We have seen some significant changes in recent years. The securities finance business is not only working through the implementation of new regulations, but it is also dealing with the uncertainty of how these regulations will evolve going forward. While all banks will be affected, each one must deal with these issues differently. For example, while it may be more difficult for larger banks to restructure their platforms, mid-sized banks have the advantage of being able to adapt more quickly and creatively.

Natixis is the international corporate, asset management, insurance and financial services arm of Groupe BPCE, the second largest banking group in France. Within the Corporate & Investment Banking (CIB) division of Global Markets, we offer a true cross-asset financing platform,

including equities, credit and fixed income, all on one platform, with a focus on innovative products that address clients' balance sheet, liquidity coverage ratio (LCR) or regulatory reserve requirements. With a unified vision we are well positioned to address the evolving financing needs of our clients.

Anand is responsible for developing and leading all securities finance activities in the Americas, including Equity Finance; Government, Agency & Corporate Repo; and Structured Credit Repo. Anand has more than 15 years of financial services experience. He joined CIB Americas from Deutsche Bank, where he had worked for more than eight years, most recently as Global Head of Global Prime Finance (GPF) Client Analytics & Portfolio Strategy and Head of Financial Resource Management — North America. Prior to Deutsche Bank, Anand worked at ING Financial Markets, Wachovia Bank and Lehman Brothers. Anand holds an MS in Computational Finance from Carnegie Mellon University, an MBA in Finance from the University of Bridgeport and a Bachelor's in Applied Sciences from Coimbatore Institute of Technology (India).

How does the centralized model offer advantages?

Traditionally, banks have dealt with each type of financing (for example, equities and treasuries) through different groups. This structure makes it very difficult to deal with clients' multi-

dimensional financing needs and is highly susceptible to inefficiencies across the business units. In a true cross-asset platform, such as we have at Natixis, clients have the advantage of a single point of contact for all of their global markets financing needs. This allows us to provide our clients with innovative solutions while increasing internal efficiencies and driving growth within the evolving framework of liquidity and capital restrictions.

Capital and balance sheet restrictions have put pressure on the financing capabilities of traditional prime brokers. How is this creating an opportunity for new funding solutions?

The increasing capital burden and finite balance sheet are forcing prime brokers to optimize their client bases more than ever. As banks have become more critical about how they allocate their balance sheet, hedge funds are now facing pressure to optimize their own collateral use and prime broker allocations while maintaining adequate diversification of credit risk. Increasingly, funds have taken it upon themselves to diversify their assets and risk from their prime brokers,

"With a unified vision we are well positioned to address the evolving financing needs of our clients"

SPONSORED: NATIXIS

creating new opportunities for a bank with a high credit rating such as Natixis that can offer non-traditional funding solutions.

What has been the main driver of securities finance and will that change going forward?

Cost has been the main driver of securities finance – this will not change. What will change is the way in which firms of all types (banks, hedge funds, pension funds, insurance companies, sovereigns and corporations) optimize the use of their various assets. With the ability to manage all asset classes on a central platform, we are able to maximize internal efficiencies and take a highly quantitative approach to providing customized financing solutions across all asset and client types.

Can you elaborate a bit more on the capabilities of a centralized, cross-asset financing platform?

The recent trend in securities lending towards more non-cash transactions to help manage balance sheet usage provides a good example. The expanding need for non-cash collateral has in turn led to a significant increase in collateral upgrade or downgrade transactions. A centralized platform makes these transactions very easy to execute. We can efficiently move different types of assets internally and across all clients.

Hedge funds, for example, are realizing that if they trade several asset classes it helps to have

"The ability for banks to be nimble and provide one stop, cross-asset financing to a wide range of clients will be critical" a single point of contact that can provide innovative, cross-asset solutions. However, this is only part of the picture. In addition to hedge funds, the next evolution includes pension funds and insurance companies – and after that, sovereigns and corporates. These new client types will bring a different set of needs that will continue to require the ability to be nimble and innovative.

Besides the centralization of securities financing, what other trends that you are seeing?

Market transparency and the movement towards central counterparties, which provide credit risk reduction and balance sheet relief, continue to be a strong force. Securities lending has always been a valuable tool, but today it is only a part of the growing set of financing structures. Collateral upgrades and downgrades are becoming more and more common. The trend towards synthetic long and short financing also continues to gather steam.

Can you give us a sense of your global capabilities?

Our global securities finance coverage continues to grow in New York, Paris, London, Frankfurt, Hong Kong and Tokyo. Part of having a successful centralized, cross-asset financing platform is also having the capability to provide solutions across geographical regions.

What can we expect for the rest of 2017 and beyond?

The securities finance market will continue to be influenced by the need for optimization and innovation in the ever-changing regulatory landscape. While many regulations have been restrictive in nature, they have also created new opportunities. The ability for banks to be nimble and provide one stop, cross-asset financing to a wide range of clients will be critical.

New era for primes

Prime broker business models have been hit hard by regulation, says *Ceri Jones*, but the pressure may be starting to wane and some measures may even be reversed

rime brokerage has been under sustained pressure and activity continues to be constrained by a combination of more stringent capital requirements, lacklustre economic growth and subdued, one-directional trading. But the outlook seems to have stabilised and some new opportunities have also emerged.

"There are now just six major prime brokers in the US – JP Morgan, Wells Fargo, Bank of America, Goldman Sachs, Morgan Stanley and Citi – compared with perhaps 14 around the time of the 2008 crisis," says Joshua Satten, director at Sapient Global Markets.

"Foreign banks such as Deutsche Bank, Barclays, RBS and the French banks have been pulling out of the US because various regulatory constraints around unencumbered cash and risk ratios are raising their service cost basis to uncompetitive levels, and the scale of their businesses has shrunk generally."

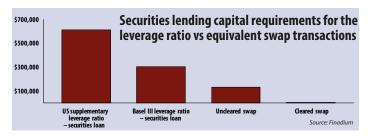
While the major banks have now implemented the necessary Leverage Ratio and Liquidity Coverage Ratio requirements in accordance with regulations, not all bank prime brokerage groups have the same constraints, and some struggle more than others to meet their required internal hurdles to justify use of balance sheet capacity for lending activity.

"Standards vary by jurisdiction and some banks charge their business units on an aggregate, rather than individual, basis," explains Josh Galper, managing principal at Finadium. "Further, banks might have an end-of-day charge or an end-of-month charge. This means the constraints that banks face can vary widely, and that will impact their pricing.

"The issue for prime brokers is less a reluctance to lend, it is more a question of 'what is the balance sheet impact?' We found in a 2015 study that the regulatory cost of an OTC derivatives trade is much less than the regulatory cost of a securities loan. As a result, many banks and brokers, depending on their regulatory framework, have an incentive to conduct a swap instead of make a loan. They will still borrow and lend where that makes sense, but it may not be the best choice for low value, general collateral transactions that could otherwise be netted internally."

PRIME BROKERS

Unable to avoid capital charges, the larger primes have been re-evaluating their client relationships, focusing their efforts on supporting more profitable clients, with the dynamic impacting not only lending but other areas such as clearing. Many primes have



ended their relationships with their smaller hedge fund clients, which is partly a function of how the market has changed from the pre-crisis era.

In 2008 many more hedge funds were actively trading, vocal and focused on profitability, but today the market is dominated by the giant asset managers that are still getting comfortable with an extended range of products and, in terms of investment process, are sometimes less sophisticated.

"Off-boarding has become a much more researched area over the last 12 months," says Virginie O'Shea, research director at Aite Group. "I have been covering client lifecycle management for a decade and off-boarding has traditionally been at the bottom of most banks' priority lists. It is telling that this has changed and large brokers such as Goldman Sachs, Credit Suisse and numerous others, have announced that they will be actively evaluating their client relationships and ending those that are judged to be too costly to the firm in terms of capital."

For more lucrative clients, there is a clearer focus on service. The relevant decision-makers are now much more likely to be on the investment side of the business. Chief investment officers and portfolio managers are getting much more involved and, as the asset management has become much more competitive generally, they have become more focused on using it as an active investment tool.

"Prime Brokers historically looked for clients who had the trading style to make most money for them, typically hedge funds with proprietary trading styles that are high-frequency or highvolume, but now many are pension funds or endowments that trade at a minimal level, generally for hedging," adds Satten. "Trading volumes are not exploding, so outsourcing for operational tasks such as reconciliation and administration is the main growth area. Banks are all looking to save money – according to 'Project Scalpel', something in the order of \$2trn."

Mini-prime opportunity

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While the large prime brokers are typically constrained by their balance sheets, an opportunity exists for smaller ones and new entrants to fill the gap with hi-touch services, as well as

PRIME BROKERS

alternative lending models such as enhanced custody, which gives the client greater visibility and control over their assets. Peer-to-peer lending is an interesting option although lenders have not yet embraced hedge funds as a preferred counterparty on a large-scale basis.

Small prime brokers are particularly picking up traction in vanilla fixed income. However, the rise in opportunities for mini-primes is largely a US phenomenon, and there are differences of opinion as to whether the industry has yet seen the full extent of the off-boarding. Some argue that the largest primes have little inclination to reduce their client range further as the wider the base, the more insight they have into market activities and portfolio management services while also reducing concentration risk.

Some smaller primes say that the flood of new clients is now waning. Furthermore, many of the largest banks that initially responded by reining in the number of clients they were servicing to focus on the largest funds are returning to the arena, especially those in the US that were forced to clean up their balance sheets at the quickest pace.

Jefferies, the mid-sized self-clearing US broker-dealer that is not subject to Basel III, is often put in as a client's second prime broker as it is able to offer an all-round high-touch service to smaller clients, according to John Laub, Jefferies' co-head of global prime services.

He adds that the crisis has forced banking arrangements to become much more transparent. "We are now pretty far along the regulatory process, although there is widespread agreement over the need for several European banks to raise more capital." he says.

"However, for the most part the repricing of collateral and adjustments to return on balance sheet have played through the system and prime brokers, which have not been the most understandable of businesses to hedge funds, have done a much better job of educating their clients in a two-way process about what works for their model."

Regulatory rollback?

Currently, there is considerable uncertainty about the Trump administration's commitment to rolling back some of the regulatory burden impacting the market. A series of new appointments have been made at the SEC and the Commodity Futures Trading Commission (CFTC), some of whom have been vocal against regulations, particularly Dodd-Frank.

To date, only a few banks have priced in the Net Stable Funding Ratio, which may turn out to be unnecessary depending on how national regulations proceed with Basel III.

"The industry is awaiting the full rollout of the Basel III framework across the various global markets – though the Trump presidency has somewhat called into question the US adoption timeframe, and raised questions about a possible full setback," explains O'Shea.

"In the rest of the world, Basel II was delayed by 11 years, so we have an interesting precedent to follow. Thus far, we've had numerous extensions from the original 2015 deadline out to March 31 2019. The larger investment banks are obviously at the sharper end of the regulatory stick when it comes to capital requirements – but all banking institutions are in the frame."

Systems upgrade

The pace of technological development is expected to accelerate to ease the integration of securities finance functions and help participants meet regulatory demands. *Andrew Neil* explores how vendors are shaping solutions

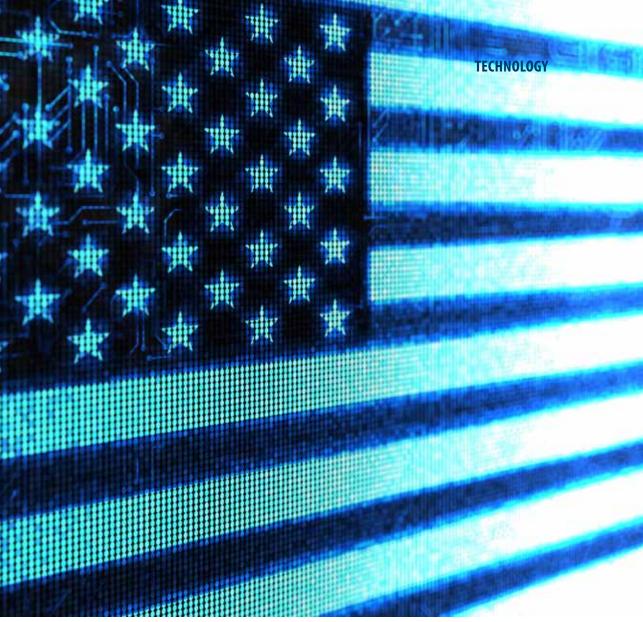
he once separate areas of operations, risk management and technology – the securities lending, repo, and collateral management functions – are morphing into a combined securities finance capability that requires greater levels of technology and systems integration.

"The silos are breaking down in terms of firm-wide risk exposure; a consolidated view of real-time positions is the new normal post-crisis," wrote Bill Butterfield of capital markets consultancy Aite Group and co-author of the study *Securities Lending: Technology Overview*, perhaps one of the most detailed studies to date on securities finance technology. "A recent spate of vendor consolidation has been driven by the demand for multi-capability systems that can handle securities lending, repo, and collateral management and optimisation in a single solution."

The drivers behind this, according to David Lewis, senior vice president at FIS, are increased costs of doing business through regulations and rising costs of capital. "More synergies need to be found," Lewis says. "The consolidation of what were previously disparate disciplines, such as equity stock loan, fixed income repo and siloed collateral management continues to change the way our systems coordinate, reflecting the way our clients are doing business."

Proprietary vs vendor options

As Aite Group points out, the securities lending technology landscape is a mix of proprietary systems and vendor solutions that all connect to vendor trading and post-trade platforms. In-house-built technology dominates in the North American securities lending market especially within large agent lenders, usually custodian banks. Broker-dealers, meanwhile, appear more suited to utilising vendor tools either in conjunction with proprietary systems or with other vendor solutions.



Chris Ekonomidis, director at Sapient Global Markets, says all market participants are affected and the need to understand the interconnections between these areas versus all of a firm's counterparties to maximise profits now justifies the investment in technology.

"The variety of regulations and market forces affecting these areas, from securities lending and repo through to collateral, are wide-ranging," Ekonomidis explains. "If a firm wants a solution that particularly addresses their needs, they need to build in-house. But that approach isn't feasible for most participants. However, firms need to balance the benefits of a custom solution against the higher development and maintenance costs."

He adds that vendor solutions can offer much of the benefit with lower total cost of ownership

TECHNOLOGY

depending on a firm's needs, complexity and risk appetite. However, Ekonomidis suggests the vendor landscape is wide but not yet deep enough across lending, repo and collateral management/optimization to see single-system solutions. "There has been consolidation under common companies – for example, one company may offer a securities lending platform and a collateral management platform but the technology solutions are not yet fully integrated," he explains.

Dow Veeranarong, director, head of product, EquiLend, says due to pressure to reduce costs and increase efficiencies, market participants continue seeking the least number of systems to handle the most capabilities well. "That said, the one-size-fits-all model often does not cover all the necessary intricacies in these specialized areas of finance. As such, we expect continued demand for robust, specialised systems that cover all the necessary activities in securities lending, repo and collateral management."

Best-of-breed systems

FIS's Lewis says that the systems that strike a balance between flexibility, capability and cost will win the greater share of the market. "We are seeing a significant rise in the number of clients moving to our managed services solutions, for example," Lewis continues. "Market participants

"The consolidation of... equity stock loan, fixed income repo and siloed collateral management continues to change the way our systems coordinate" looking to reduce the total cost of ownership of their systems can benefit from having experts from the provider host and manage the systems outside the bank. Many organisations want to focus on doing what they do best – securities financing and collateral management – while leaving system management to the technology provider."

Martin Seagroatt, marketing director, securities finance and collateral management at Broadridge, suggests that platforms that offer strong global inventory management combined with securities lending, repo and derivatives collateral management are certainly positioned well as the trend for de-siloing gathers pace.

David Lewis, FIS

"Solutions that can provide market connectivity, aggregation and execution, and front-to-back office trade lifecycle support can also provide huge benefits to customers," Seagroatt explains. "Some

solutions vendors entering the market have origins in the derivatives collateral business but do not understand the complexities of the securities finance process. This can sometimes lead to sub-optimal performance around collateral management and optimisation due to the increasing convergence of collateral management with securities financing."

Another trend experts at Broadridge have identified, Seagroatt notes, is the securities finance and collateral management ecosystem becoming more integrated. Systems therefore need to interface seamlessly with a wide range of market infrastructure, electronic trading networks, posttrade solutions, trade repositories and market utilities.

"The industry is moving from an environment of individual competing firms to extended value chains of networked organisations," he adds. "This model, underpinned by technology, is the key to unlocking maximum efficiency and reducing costs in response to the regulatory tsunami that has engulfed the business in recent years."

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Technology budgets

According to Aite, firms currently spend close to \$500m annually on securities lending technology. Spending is split near-equally between proprietary and vendor solutions. However, the consultancy predicts that the market for commercial vendor securities lending solutions alone will grow to \$307m in 2020.

"Budgets are definitely on the increase in finance tech," says Ekonomidis. "Firms are realising that they have been cobbling together existing solutions for too long. While workable at the time, point solutions solving one particular problem cannot address the wide range of complexities occurring across the securities finance market."

FIS's Lewis says many market participants are looking to technology advances in their middle and back office as the primary areas for return on investment. "There are many ways technology can streamline our industry, bringing down costs and improving the return on equity and capital employed."

EquiLend's Veeranarong says that technology budgets and resources are generally allocated according to priorities "with tech to help a firm meet regulatory requirements rising to the top".

"The industry is moving from an environment of individual competing firms to extended value chains of networked organisations"

Martin Seagroatt, Broadridge

"Technology that is proven to add efficiencies, decrease costs and potentially lead to greater revenue for a firm is very attractive to clients. When EquiLend launched NGT, our global client base prioritised the migration to the platform because they foresaw those benefits."

Seagroatt suggests that IT spending appears to be growing steadily year-on-year. "Complying with the Securities Financing Transactions Regulation (SFTR) rules and other upcoming regulations will drive IT budgets for the foreseeable future. However, many firms are also using legacy technology solutions that have not moved with market trends and are now creaking at the seams.

"There is also some budget allocation towards more speculative and potentially disruptive technology such as blockchain and artificial

intelligence," he adds. "No one wants to be left behind or in the worst case see disruption to their business model in the event we see widespread adoption of these technologies."

Technology firm M&A

As Aite Group notes in its study, tie-ups between vendors have become common across the securities finance market. In June 2016, Broadridge acquired 4Sight Financial. IHS and Markit also merged last year. Two months later EquiLend acquired Automated Equity Finance Markets, which has since been invested in and rebranded as EquiLend Clearing Services (ECS). SunGard was acquired by FIS in 2015. Partnerships have also been formed for specific services, such as IHS Markit and Pirum's work to build an SFTR reporting tool. ECS has also teamed up with OCC for greater access to central counterparty clearing. Could more consolidation and collaboration occur?

"Possibly – but there is a finite limit on this," says FIS's Lewis. "Healthy competition benefits us all, and especially the clients, providing choice and competitive pricing. Both technology providers



and the market participants should be wary of too much consolidation in any one technology provider."

"M&A deals are part of the natural cycle of the market," EquiLend's Veeranarong adds. "We expect to see more strategic partnerships and joint ventures among technology providers and market infrastructures."

Chris Valentino, North American sales and client director at Trading Apps – which offers a suite of securities finance solutions – says he sees the logic behind partnerships and acquisitions. However, he also understands the pain associated with mergers. "Such deals can be time consuming and it takes time and energy for systems to integrate, yet clients need things quickly. In an M&A environment, a tech firm that can turn things around quickly by being nimble and flexible will stand out. We're up against some big players, but we are

very quick to market and on the forefront with our technology."

Blockchain

Meanwhile, when it comes to distributed ledger technologies – also known as blockchain – securities finance technology vendors are closely monitoring progress and in some cases already investing capital. Lewis says it has the potential to bring significant benefits to this and other financial markets, however, he adds he would be wary of the "cure all ills" qualities of the technology. "Firms are realising that they have been cobbling together existing solutions for too long"

> Chris Ekonomidis, Sapient Global Markets

"It is, relatively speaking, still in its infancy as a process and adoption will not be quick. As with any new technology, particularly when so much value could be at stake, there will need to be a period of testing before full confidence can be given to such a transformational technology. FIS is, of course, monitoring developments closely and looking at options to include it in our clients' workflows."

While it is still early days, Broadridge's Seagroatt believes there could be an application for blockchain technology in certain areas of the securities finance lifecycle.

"We have made strategic investments internally and with a number of fintech vendors in the blockchain space and are currently working with several customers on proof-of-concepts in the bi-lateral repo area," he says. "We continue to see an accelerating evolution of the number and complexity of blockchain initiatives affecting the financial services sector. Broadridge is determined to understand and participate in this trend."

EquiLend's Veeranarong says blockchain could completely transform the securities finance space. "We're paying close attention," she adds.

The crest of the regulatory wave

Morgan Lewis & Bockius LLP partners *Marion G Barish, Roger P Joseph* and *Edwin E Smith* set out the regulatory changes affecting securities finance

n recent years, indeed even in the past year, US regulatory requirements affecting securities finance such as repurchase agreements and securities lending have become more demanding. These regulatory requirements reflect the efforts of regulators, in the US and globally, to address the perceived causes of the 2008-2009 financial crisis.

Among the more recent regulatory developments, discussed in more detail below, are the US Securities and Exchange Commission's (SEC) recent reform of money market fund regulations, which affect the utility and attractiveness of money market mutual funds as securities lending investment vehicles. Another is the SEC's adoption of beefed-up reporting requirements for mutual funds, including additional detailed requirements for mutual funds that engage in securities lending. And, finally, the prospective regulations from US banking regulators requiring that financial contracts such as swap contracts, securities lending agreements and repurchase agreements be subject to contractual stays so as to afford regulators time to effect an orderly resolution of an insolvent financial institution.

Since the financial crisis, regulators around the globe – and the US has been no exception – have focused sharply on preventing a recurrence of a global financial meltdown. Concerns about the costs of regulation, and the potential impact of regulation on economic growth, have been secondary.

With the Trump election, however, there are signs that the regulatory wave may have crested. In February of this year, President Trump issued an executive order to begin a process of evaluating whether changes should be made to regulations governing the US financial system.

Although the order was broad and general, and at most represents an initial step in a longer, more detailed process, it articulates core principles, including fostering economic growth and vibrant financial markets through more rigorous regulatory impact analysis; making regulation more efficient, effective and appropriately tailored; and enabling American companies to be competitive with foreign firms in domestic and foreign markets.

The details remain to be seen, but these principles provide a broad roadmap for potential

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regulatory reform and at minimum reduce the likelihood of new, burdensome regulation.

Money market reform

In October 2016, more stringent regulations of US money market funds became effective. Among other things, the regulations require that all money market funds, other than retail money market funds and government money market funds, allow their per-share

net asset values to float, rather than maintain the \$1.00 per share asset value at which money market funds have traditionally transacted purchases and redemptions.

In addition, all money market funds other than government money market

funds must (and government money market funds may) impose liquidity fees or impose redemption gates if their weekly liquid assets fall below certain levels. Weekly liquid assets are defined as those that can be converted to cash within seven days.

Historically, money market funds have served as an important vehicle for investment of securities lending collateral. Moreover, the yield on investment of securities lending collateral has traditionally been a major incentive to engage in securities lending. However, the possibility of redemption fees or gates makes money market funds, other than government money market funds, much less attractive, since collateral may be required to be returned on very short notice.

Government money market funds may opt out of redemption fees or gates but must invest

"It remains unclear whether the new money market fund requirements will lessen the attractiveness of securities lending for some market participants" at least 99.5% of their assets in US government or agency securities, including repurchase agreements collateralized by such securities. Since government money market funds tend to have significantly lower yields than their 'prime' counterparts, the money market fund reforms could affect the attractiveness of securities lending for some market participants.

Other vehicles continue to be available for use as securities lending collateral pools, including short-term bond funds, private (unregistered) funds, separately managed accounts, and, for retirement plan investors, collective investment trusts – none of which are subject to the SEC's money market fund regulations. But it remains unclear whether the new money market fund requirements will lessen the attractiveness of

securities lending for some market participants.

The new money market fund requirements were adopted by the SEC over the strong objection of many industry participants. And there are now many industry proposals to roll back post-financial crisis laws and regulations. But we have seen little appetite, even among proponents of financial regulatory reform, to undo the recent money market reform regulations. So the impact of the money market reforms may be felt by the securities lending industry for some time to come.

Enhanced reporting requirements

In the aftermath of the financial crisis, regulators have believed that if they could acquire significantly more data from market participants they might be better able to identify and curtail threats to financial stability.

One area that has been of particular interest to regulators concerns indemnification agreements by securities lending agents, guaranteeing performance by securities borrowers. The regulators' concern is that securities lending indemnification agreements represent contingent liabilities which, in the event of widespread defaults by securities borrowers, could threaten the solvency of the lending agents, typically broker-dealers or banks.

Late last year, the SEC adopted new reporting requirements for mutual funds. These requirements will become effective in 2018 and 2019. While they are only one facet of those new requirements, the reporting requirements for securities lending are significant. On a monthly basis, mutual funds will be required to identify all borrowers of securities, the value of the securities on loan to

each borrower, and the amount and value of each category of non-cash collateral (similar information is required for repurchase agreements and collateral subject thereto).

More securities lending reporting is required annually, including identification of each lending agent and cash collateral manager, whether any borrower defaults have resulted in collateral liquidations, gross and net income from securities lending, and securities lending fees and compensation paid. The reporting requirements also reflect the regulators' interest in indemnification arrangements, because they require disclosure

the regulators interest in indemnification arrangements, because they require disclosure of whether lending agents or others have provided indemnification, and whether indemnification rights were exercised.

The new regulations are widely regarded by industry participants as highly burdensome, and they are expected to require mutual funds to invest significantly in technology to accommodate the enhanced reporting requirements. Unlike in the case of money market reform, some industry organizations are expected to urge the SEC to revisit, pare back or delay these reporting requirements. Whether any paring back will happen and, if so, whether it will relate to the securities lending disclosure requirements, remains to be seen.

Resolution stays

Regulators globally have sought broader restrictions on the exercise of rights by financial contract counterparties that could effectively thwart the ability of regulators to accomplish an orderly resolution of a failing systemically important financial institution (Sifi).

Of particular concern to regulators is the contractual right of a counterparty to a failing Sifi to close out a financial contract, including a securities lending agreement or repurchase agreement, on account of the commencement of a resolution proceeding for the institution before the resolution authority has been able to take steps to resolve the institution.

For example, this could be by effecting a transfer of the institution's assets to a third party or new financial institution or a bail-in of funded debt and other liabilities of the failing institution to accomplish the institution's rehabilitation. "The new [reporting] regulations are widely regarded by industry participants as highly burdensome"

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Although a resolution regime will typically, by statute or regulation, impose a stay on the termination of a financial contract arising from the commencement of a resolution proceeding, regulators have been concerned that, when the financial contract is governed by foreign law or is with a foreign counterparty, the stay imposed by the resolution regime in the institution's home jurisdiction may not be enforced in a foreign forum.

As a result, regulators have promulgated rules for Sifis to require their counterparties to agree contractually to the stays imposed by their home resolution regimes and have worked with industry groups, such as the International Swaps and Derivatives Association, to develop so-called stay protocols to which parties to financial contracts would agree.

"Of particular concern to regulators is the contractual right of a counterparty to a failing Sifi to close out a financial contract, including a securities lending agreement" US banking regulators are supportive of these efforts. In 2016, the US Federal Reserve Board promulgated proposed regulations that would in effect require financial contracts to incorporate the relevant stay protocols. It is anticipated that other US federal banking agencies will take similar steps.

The stay protocols applicable to US institutions, like many of the stay protocols generally, would in a resolution proceeding under Title II of the Dodd-Frank Act, the so-called Orderly Liquidation Authority, contractually eliminate in a financial contract with a subsidiary of the institution a cross-default to the commencement of a resolution proceeding to which the institution is subject.

It would also defer recourse to a legal 'guaranty' or other credit

enhancement provided by the institution of the subsidiary's financial contract obligations so long as during the stay period the credit enhancement is assumed by the transferee of the institution's assets or is assumed by the institution as part of its rehabilitation.

The stay protocols applicable to US institutions would also provide for the cross-default and credit enhancement-related agreements to apply if the institution were subject to a case under chapter 11 of the US Bankruptcy Code rather than the Orderly Liquidation Authority.

Other requirements

Numerous other regulatory requirements affect securities finance. Among them are enhanced capital requirements and single counterparty credit limits. It remains unclear whether these requirements will be loosened to any significant extent, but there seems to be a growing recognition that onerous capital requirements inhibit bank lending and, consequently, economic growth.

But other initiatives that affect securities lending are unlikely to be revisited. For example, T+2 settlement of securities transactions, recently adopted by the SEC, may impose additional demands on securities industry participants, but that initiative had the support of both the Republican and the Democratic SEC Commissioners and is unlikely to be reversed.

Recent regulations have clearly imposed burdens on securities finance activities, but the regulatory wave may have crested. While significant new regulation may well be averted, some recent regulation may be here to stay. Whether, and to what extent, other recent regulations will be streamlined or rolled back remains to be seen.

Creative compliance Ed Blount, executive director of CSFME, discusses efficient ways to meet regulatory demands in post-crisis securities finance

s securities finance moves beyond the credit crisis era, internal compliance officers must administer policy manuals that have been overwhelmed by new rules from legislation, regulation and, implicitly, from the lessons learned in litigation. This is just as true for customers as for their service providers.

Agent banks, responding to regulatory capital pressures, now offer creative service options which allow customers to make loans on a peer-to-peer basis, manage their own cash collateral and clear trades in central counterparties (CCPs).

To avoid problems, institutions which opt into peer-topeer lending without an agent's indemnification against borrower default and lenders which accept indemnified

Ed Blount

Ed Blount is the executive director and founder of the Center for the Study of Financial Market Evolution (CSFME).

Since the credit crisis,

Ed Blount has testified as an expert in securities finance before all three branches of the US federal government, including more than a dozen matters in litigation at all jurisdiction levels. He is lead co-author of Securities Finance Disputes, in the 2017 Litigation Services Handbook, published by John Wiley and Sons, New York, and can be contacted at ewblount@csfme.org

clearing through CCPs will both likely require enhanced vetting of counterparties and real-time monitoring of on-loan positions with dynamic credit limits.

Agents may assist in those functions but will likely be held back by concerns about becoming defined as a control person, with legal exposure to the actions of their customers.

Lender cash management means that data linkages among the custodian banks and lending agents, which were refined during the advent of third-party agents, must now also link to the customers' own reinvestment desks. Similarly, the use of CCPs will require improved recall management protocols and perhaps even substitutions outside the settlement utility itself.

Capital charges are encouraging lenders and agents to clear trades through central counterparties. Such an approach will raise issues that have rarely if ever been considered in securities finance

For instance, customers and agent banks will have to find creative solutions to agree on crisisready access to collateral held in multiple custodial entities and jurisdictions. And, after the next crisis, surviving CCP members will be expected to participate in the unraveling of netted transaction files.

As difficult as it was after the 2008 crisis to unwind legacy records at just one firm, Lehman



COMPLIANCE

Brothers, experts quake at the thought of how monumental the task would be if or when a large CCP collapses with dozens, and perhaps hundreds of active member firms.

While the creative new protocols are being tested, the movement to two-day settlement of equity trades in the United States will also put pressure on routine securities lending operations. Availability buffers at trading desks will have to be held to levels capable of substituting for returned loans in large scale during volatile corrections and market breaks. Corporate actions, as always, will present great challenges to operations and compliance managers in ways that defy prediction.



Reporting and disclosure

A desire for greater transparency, largely in response to the growth of so-called shadow banking, has driven many of the regulatory reforms. For that reason, reporting requirements have increased exponentially.

However, the confidentiality requirements of certain customers make it difficult, or even impossible, for agents to comply fully. For instance, US state and local government funds may

"Experts quake at the thought of how monumental the task would be if or when a large CCP collapses" not accept federal authority of regulators for intrusive disclosure, citing the separation of powers implied by the Tenth Amendment to the US Constitution.

Indeed, at a recent IMN/Euromoney securities finance conference, an official from the US Treasury's Office of Financial Research stated that the lending agents' inability to provide customer-level detail for reported loans had compromised the quality of the resulting securities finance transaction database.

Presumably, federal regulators could request enabling legislation to force disclosure, although such an attempt will probably not prevail without a favorable ruling from the US Supreme Court.

The records of sovereign wealth funds are even more problematic. There is no authority that can enforce their compliance except (perhaps) the Basel central bank committees. In any event, regulators in all jurisdictions will have to become creative to entice disclosure of loan record



details by their own regional and foreign governments.

Compliance officers in US regulated banks and dealers, notwithstanding these difficulties, will still be required to insure adherence to federal regulations, or request exemptions and submit verifiable disclaimers in their disclosure reports.

Cross-border exposures

Cross-market flows of liquidity are so complex that they require special documentation to satisfy regulatory concerns. In June 2014, the New York Fed released a study describing how global banks reacted to liquidity shocks during the credit crisis in quite different ways from their domestic competitors.

Those banks with foreign affiliates moved to quickly shift funds internally, shoring up their home markets with available funds from markets that they considered to be less important. As a result, the Fed study pointed out that the damage could be magnified abroad, especially in those markets with a significant foreign banking presence.

Funds that are transferred among subsidiaries, especially away from a market in crisis must have sufficient documented justification to defend against later charges of malfeasance or misappropriation.

"The safest course for compliance officers at service providers is to assume the higher standard and act accordingly"

COMPLIANCE

If local authorities subsequently were to reject the grounds for such transfers, the ripple effect could endanger the justification for related transactions and profits, even leading to challenges from tax authorities on economic substance, and civil claims for damages and unjust enrichment. Regulatory fines would be the least of any CEO's concerns in that nightmare scenario.

Even without a crisis, compliance managers for institutional lenders will have to prove that fair dealing and arms-length negotiation per industry standards were followed if an affiliated agent or borrower is engaged in loan transactions.

The standards for rebutting claims of abusive fees, conflicts of interest and self-dealing in Erisa [Employee Retirement Income Security Act of 1974] or other class-action cases are beyond the scope of this article, but worthy of regular review by attorneys and compliance managers in affiliated subsidiaries.

Systems vigilance

Traditional methods of preparing requests for proposals and reviewing responses will have to be supplemented by functional reviews of the systems used by cash managers on the reinvestment desk to control co-existing legacy accounts, along with the possibility of liquidity fees and gates to be imposed on pooled accounts in a crisis, both at the agent and at its fund customers. This was an extremely contentious issue during post-crisis litigation. The SEC's recent empowerment

"The confidentiality requirements of certain customers make it difficult, or even impossible, for agents to comply fully" of these safeguards for regulated money funds will not make it easier to implement in practice, much less to anticipate.

While pooled arrangements for collateral reinvestment have become less popular in recent years, agent banks may still have to accept lenders with impaired, long-term legacy assets in their segregated reinvestment accounts. Those lenders, once burned and twice shy, may be sceptical of an agent's promised enhancements to front-end compliance systems, especially when non-traditional counterparties are added to the mix.

Systems will be held to a higher standard, as compliance officers at lenders insist on proof of accurate data dictionaries with fulsome

descriptions of assets, and compliance officers at agents insist on clear, comprehensive investment guidelines. Major system revisions will undoubtedly require approval by attorneys and operations managers on both sides of the trade.

To prepare for the worst, transaction records will have to be stored off-site such that a trustee can selectively provide access to bankruptcy attorneys and their consultants.

Systems documentation must be kept current, not only to prove capability during the period in dispute but also to allow the resurrection of activity and positions long after the systems management team has taken its last paycheck and only the general counsel's office still has airconditioning.

Performance warranties

Compliance officers everywhere are being asked to help negotiate contracts with creative and complex warranties. However, banks' ability to accede to these demands is greatly constrained by the potential for heavy costs from special regulatory capital requirements.

COMPLIANCE

Even without the specific asset risk weights under Pillar One of the Basel Capital Accord, regulators can use their Pillar Two authority to require an increase in capital reserves for the perceived operational risks implied by guarantees, and they can follow up with forced Pillar Three disclosures to investors.

Consider that lenders' attorneys often press during contract negotiations for guarantees to their clients of minimum lending volumes or income, minimum spreads on loans, backed-dated credits for operations errors (such as misdirected wire transfers) and similar issues.

However, concessions that risk exposing bank lending agents to Pillar 2 additions to capital requirements, per the Basel capital rules, will likely not be granted without customers' concessions in fee splits, relaxation of counterparty credit minimums or the acceptance of stay provisions in bankruptcy. In effect, banks will require more income to offset their higher capital charges.

"Cross-market flows of liquidity are so complex that they require special documentation to satisfy regulatory concerns"

To the extent that there is a resumption of exclusive borrowing deals, lenders' attorneys will likely ask their counterparties for minimum

balance requirements to enhance liquidity, along with the customary guarantees of minimum revenues.

Compliance with balance guarantees, if accepted, will probably be maintained on a quarterly or even annual basis, exposing an interim risk of vulnerability to forced sales of longer-dated collateral instruments in a market break.

Since short sellers often close their positions to capture profits in a break, their prime brokers may be quite busy returning borrowed securities *en masse*. Those returns can force lenders to sell the instruments purchased with cash collateral at a loss.

That's the nightmare scenario for systemic market regulators.

Fiduciary obligations

The scope and nature of fiduciary services is changing, regardless of whether the US Labor Department's novel rule is introduced. Even the application of the existing standard is contentious. For example, service providers try to avoid being named as fiduciaries unless so defined explicitly in the contract. But it's not easy to avoid.

In litigation, plaintiff's attorneys have asked the courts to apply the same fiduciary standard to financial agents who perform similar functions as fiduciaries. In defense, service providers attempt to prove that their actions in dispute were consistent with non-fiduciary industry practice, or, as a fallback, that they were *de facto* compliant with the prudent person rule.

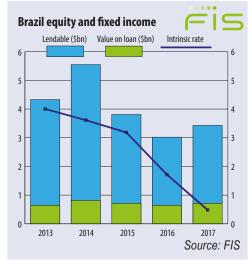
Most recent cases were settled out of court, so there remains no clear guideline for reliance by legal or compliance officers. Therefore, the safest course for compliance officers at service providers is to assume the higher standard and act accordingly.

For customers, it is best to define the specifics of critical services in the contract and attempt to hold the provider to overt, consistent compliance. Of course, the unfortunate final test of compliance lies within the purview of the courts.

Brazil

IS statistics show that during March 2017 the average daily value of securities on loan reached \$782m with an intrinsic rate of 0.65%. According B3 (created from the merger of BM&FBovespa and Cetip) open interest over the whole of March 2017 reached \$20.5bn and currently represents around 2.4% of listed companies' market capitalisation or 4.5% of the stocks deposited in B3's central securities depository.

Bill Mascaro, head of international equity trading, Citi Agency Securities Lending, says that within the MSCI Emerging & Frontier Markets index,



Brazil is one of the most active securities lending markets. "According to statistics published by B3, as of May 2 2017, there's roughly \$10.6bn equity on-loan, with a weighted average spread of 133 bps. That translates to a total annualised securities lending industry wallet of roughly \$140m," he says.

According to José Ribeiro de Andrade, chief product and client officer of B3, international investors currently represent around 47% of the total amount of deposited securities. However, they are typically not active in the Brazilian securities lending market due to the difference between the bilateral model that prevails in most major markets and the central counterparty (CCP) model mandated by Brazilian Federal regulation.

"For some regulated institutional investors the rules are not clear about how to operate in a CCP model. This is mainly because collateral management is different in a non-CCP model. To resolve this issue, B3 is in talks with the regulators in each major market," de Andrade explains.

Citi's Mascaro says that the CCP structure limits investor participation, particularly for investors who must be in receipt of their securities lending collateral. In the Brazilian system the CCP retains the collateral in the name of the borrower and margins it along with other exchange activity.

"This precludes US-registered investment companies subject to the Investment Company Act of 1940 and European Union investors with the status of Ucits from participating. Clearly, the Brazilian market is committed to facilitate investor education and participation but until their CCP structure changes, or '40 Act and Ucits rules change, offshore securities lending participation will remain concentrated with largely unconstrained funds."

B3 is the only venue providing securities lending services in the country and to maintain last years' growth, de Andrade says the group is conducting programmes to make the product more

attractive for lenders to meet borrower demand.

"In some periods, markets face excess demand from the borrower side that is not always fully met by lenders. Soon new features will be announced, including new types of orders, changes to the settlement cycle and intraday fee disclosures. An average portfolio yields 80bps in fees annually, which is high compared to other markets and a pull for lenders and intermediaries into the Brazilian market.

"Considering the expected growth of the market after three years of economic recession plus other initiatives such as the market maker expansion programme that the exchange has been conducting in recent years, as well as improvements to the product, we expect more demand for securities borrowing and therefore more opportunities for lenders to manage their inventory of assets better."

In March 2017 the European Securities and Markets Authority (Esma) recognised the Brazil securities lending model as a Qualified Central Counterparty (QCCP). Citi's Mascaro says this designation could potentially pave the way for additional investor participation, now that they are afforded greater data transparency to calculate the capital requirements for default fund exposure, required of QCCPs.

"It's still somewhat early-stages to understand the full impact of this designation from a securities lending standpoint, but one can surmise it will not negatively impact supply," says Mascaro adding that, more broadly, the strong growth rates in emerging market economies have resulted in an increase in portfolio allocations among investors across the globe.

"As emerging market countries open up their financial markets and align their regulatory regimes to international practices, holders of emerging market securities can benefit from the economic opportunities that securities lending can present," adds Mascaro.

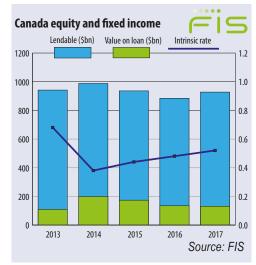
"As the prominent leader in emerging markets lending and new market development, we are engaged in discussions with the local regulators and our local market specialists on a number of these markets. Other Latin American markets we are closely watching are Argentina, Chile, Colombia, and Peru. In addition, we are fully engaged with each depository and exchange to offer expert guidance on successful implementation, to ensure a commercial launch and buildup of the appropriate infrastructure."



Canada

he value of Canadian assets across equity and fixed income available for lending was just shy of \$1trn (US dollars) during the month of May 2017, with \$135bn of that amount on loan according to FIS statistics. Year-to-date (end-of-May) the country has been a bright spot in terms of revenue for agents and their beneficial owners totalling \$155m and an average intrinsic rate of 0.57%.

Donato D'Eramo managing director, global head of securities lending, RBC Investor & Treasury Services, says that while securities lending possesses a global footprint, many are



surprised to learn about Canada's leadership in the sector. "Many factors are in constant motion in securities lending. Here in Canada, equities and fixed income play a leading role in our work, as does enhanced transparency and high-quality liquid assets (HQLA). Understanding their role and impact are what drive successful results."

Return of specials

Phil Zywot managing director, Canada regional trading head, BNY Mellon Markets, says that over the last year, the Canadian market has been very active and we have seen a return of specials in the Canadian equity space. "Many resource-based companies and firms that were linked or exposed to these companies were in demand and drove Canadian equity levels higher," he explains. "Since February 2016, we have experienced a rebound in the commodities space while weighted average fees for Canadian equities have remained stable."

With the commodity rebound, Zywot adds that some short covering has occurred in the resource sector, but has been offset by increased demand for financials. For example, Home Capital – Canada's biggest non-bank mortgage lender – generated \$18m of revenue in Q1 2017. "Booming housing markets in both Toronto and Vancouver have put financials, specifically mortgage financing companies, in the crosshairs of short sellers," Zywot notes.

Dave Sedman, head of securities lending trading Canada at Northern Trust in Toronto, says specials tend to be very name-specific and associated with industries where there has been volatility in underlying share prices. "The Canadian specials market benefited from continued demand in financials, specifically mortgage lenders, as their heavy concentration in nonprime residential mortgages implies greater vulnerability versus most Canadian banks.

"Directional demand in the healthcare, pharmaceutical and specialty pharmaceutical sector was seen in 2016, over year-end, and throughout the first quarter in 2017. An increase in M&A

activity coupled with a negative outlook within department store retailers has fuelled demand for specific companies in those market segments."

According to Sedman, another pocket of demand relates to the lack of liquidity in certain securities around proxy voting periods. "In Canada specifically there tends to be cyclical demand based on the proxy voting. This can be attributable to a number of investors that want to ensure they have access to their securities to vote the proxy."

In addition, a large portion of the revenue generated from Canadian equities is driven by dividend yield enhancement trades, coupled with the dividend reinvestment plan trade.

"Continued demand from borrowers to pledge various forms of non-cash collateral – equities and corporate debt – has dominated the securities lending market, providing opportunities for beneficial owners that can accommodate this collateral within their risk parameters," Sedman explains.

HQLA demand

BNY Mellon's Zywot says demand for US treasuries and Canadian government bonds continues to play an important role in securities lending. "With Canada being one of the few remaining AAA-rated countries, demand for Canadian government bonds, and other AAA-rated sovereigns remains very high and we expect this trend to continue."

RBC's D'Eramo adds that financing trades, collateral upgrades and term lending are dominant and increasing trends in the Canadian fixed income space which has approximately \$860bn+ in lendable assets with \$130bn+ on loan. "In managing risk-weighted assets, liquidity and funding continue to be at the forefront for regulated financial institutions globally, securities lending is an increasingly important function to supply HQLA and transform collateral to address evolving needs," D'Eramo says.

Another area that is generating securities lending demand is the evolving Basel rules and the regulator's interpretation of them. "Liquidity rules under Basel require banks to hold higher levels of HQLA. This in turn has strengthened demand for Government of Canada issuances, especially structured on a term basis and, again, where a variety of collateral can be accepted by the lender," Sedman adds.

Given the current low interest rates, BNY Mellon's Zywot believes there is a greater focus for lending participants to generate alpha to meet funding requirements and elevate returns. "More Canadian beneficial owners are turning to securities lending programmes as a vehicle to generate incremental returns on their portfolios," he said. "As lending programmes become more targeted, agent lenders are looking for portfolios that are more alpha-generating in terms of holding specials and are pursuing those accordingly."

RBC's D'Eramo adds that enhanced transparency, greater automation and more efficient collateral management solutions are the leading market trends. "Transparency and greater beneficial owner engagement are contributing to beneficial owners being open to new lending opportunities and being able to make calculated risk/reward decisions. "Securities lending is not immune to the changing financial services landscape. Maintaining strong client relationships and understanding trends will ensure we can continue to produce solutions our clients need to be successful."

Chile

Securities lending in Chile for international participants is a relatively recent activity, since Resolution 36 was enacted on March 14 2011, but is soon to benefit from cutting-edge technology. All participants can only short sell shares included in the List A of the stock exchange Bolsa Comercio Santiago (BCS). Participants must be registered with the BCS, all trades must be settled through it and it acts as an agent in the transaction. Term is limited to 360 days and shorts are subject to the up-tick rule.

Short sales must be collateralised with securities at least 125% the size of the loan, and BCS lists acceptable collateral and how it is valued. Collateral is held by BCS in its custody department in segregated accounts on behalf of the lender. Margin calls must be fulfilled on a next-day basis.

BCS will become the first bourse in Latin America to use a securities lending blockchain system, built by tech giant IBM. The groups revealed in mid-May that an IBM-designed platform will be implemented within the exchange's existing 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, institutional investor clients such as mutual funds and AFPs [pension funds], regulators and brokerage agencies – can exchange information in a highly secure manner, assuring financial transparency and increasing the process end-to-end efficiency."

For example, when a broker and institutional client sign a master agreement to engage in short sale and securities borrowing/lending activity, the broker enters the details and electronically signs the records on blockchain for audit purposes. Upon successful execution of the short sale order, trading platform will register the lending contract on the blockchain on behalf of brokerage house. A smart contract will then be created to ensure that short sale is allowed for that security.

BCS will become owner and operator of the network and anyone with the blockchain key can access and look at the information including the master agreement, secure lending contracts and contracts with banks. It is estimated that the blockchain solution could help BCS cut its back-office processes time by 40%.

"Our agreement with Santiago Exchange marks a before-and-after in terms of innovation in the stock market," says IBM Chile general manager, Francisco Thiermann.

The solution is expected to be widely available to support multiple parties across the financial industry ecosystem this year. Short selling is currently only permitted for local investors, both institutional and retail.

The local benchmark index for Chile, IPSA 40 Index, has rallied strongly so far 2017. This has coincided with a significant increase in total short positions.

Colombia

he fixed income market in Colombia is one of the most important in Latin America. Trading volume was \$337bn in 2016, making it the sixth largest fixed income market in the world according to the World Federation of Exchanges data (although it is all listed, rather than OTC). There is an increasingly active money market, which includes several mechanisms such as repos and securities lending transactions.

Securities lending applies international standards, such as for recalls and investor guarantees. All participants have access to the lending mechanism, including pension funds, retail investors and brokers. In 2016 securities lending trades totalled \$3bn, with \$400m in equity and \$2.7bn in fixed income, according to the data of the local exchange Bolsa de Valores de Colombia (BVC).

BVC president Juan Pablo Córdoba says: "Despite strong efforts and some meaningful improvements, Colombia still does not have the capital markets that needed and deserves. It lacks size, depth and breadth.

"While, nominally, it has multiple players, in practice, there are very few decision makers. Consequently, it is not able to serve the real economy – all of the real economy – properly, as it does not provide sufficient financing and investment opportunities."

In an effort to align with international best practices, BVC is in the process of integrating with other market infrastructures providers, in particular with the CSD, Deceval.

"We will soon launch an options market and we are also working with the CCP to provide centralised clearing and settlement services for equities in the mid-term," says Córdoba. "Moreover, we have ongoing projects to further enable e-trading and cross market strategies."

Challenges remain to be resolved, however. "At our level, a significant challenge we face is to further develop the derivatives market. Though the challenge is significant, the prospects are positive – this market has been growing at a 20% rate on average since 2008. Of course, other key priorities are bringing new issuers to the market and providing more liquidity," he says.

"Structurally, we need, among other things, more players – institutional investors, asset managers – with different risk profiles and appetites, and a widespread increase to the retail investors. The compensation structure of pension funds needs to be reformed in order to align their incentives and allow them to take additional – though controlled – risks."

BVC is focusing its efforts for 2017 on improving its value proposition and "keeping Colombia as an attractive market and a competitive investment alternative" for local and international investors, says Córdoba.

"We expect to advance on regulations issues to provide more trading mechanism and protection to the investors. With the ambitious 4G road programme is still underway, the need for finance to fund infrastructure projects in the country will remain active. We are expecting capital markets to play an increasingly dynamic role in the financing process."

Mexico

n average, \$33.6bn of Mexican securities were available to lend in May 2017. Data from FIS shows a mere \$900m of that figure was out on loan during the month generating revenue of \$375,000 shared between the select few beneficial owners and agents operating in the market.

Monthly loan revenues have been hovering around this level since the start of 2015, according to FIS. Back in 2013, monthly revenue hauls in excess of \$1m were common while availability was north of \$40bn and on-loan balances were considerably higher, at \$1.2bn on average in May 2013.



Federico Ortega, head of securities lending at Nacional Financiera, says that the group is looking to stimulate securities lending in Mexico as part of the national bank's mandate to develop the country's financial market. "Mexico's securities lending market currently has an excess of demand to borrow securities and there is a lack of supply. This in part due to the fact that foreign investors hold many of the Mexican securities, including 63% of the outstanding amount of M-bonds issued by the government."

This, Ortega claims, represents an opportunity for foreign investors and financial institutions to participate in the Mexican securities lending market, which would contribute more supply and liquidity. The executive adds that Nacional Financiera also aims to give access to local as well as foreign investors: "Mexico has had a securities lending market in place since the 1990s. Foreign investors can participate in the local securities lending market. Regulation allows international agreements such as the MSLA as well as the local securities lending agreement."

Another way to access the market is through securities lending platforms, which need to be authorised by the local financial authorities. At this stage, there are only two local platforms authorised that do securities lending transactions. In spite of the efforts, in terms of both regulatory change and promotion of these types of transactions, Ortega admits there still room for the market to grow and reach its full potential.

Separately, an upcoming Mexican trading venue taking on incumbent bourse Bolsa Mexicana (BMV) believes it can add securities lending supply. Bolsa Institucional de Valores (BIVA) has been in development for four years but is set to launch in 2017 and operate a fully fledged stock exchange, subject to regulatory approvals.

It would leverage the assets of its holding company, Cencor, which runs an interdealer broker

business, fair value price provider, institutional broker as well as a securities lending platform, MEI. Analysts at broker ITG have noted that some question whether a new exchange is warranted, given that 12 securities were responsible for trading more than 50% of 2016 volumes in Mexico.

However, BIVA's executives point to that fact that four pension funds have backed the project with an MXN450m (\$22m) investment through a private equity firm, which demonstrates investors' appetite for an additional, competitive venue. The new exchange also signed a deal with Nasdaq X-Stream technology two years ago, meaning it has a technical edge to attract market participants and strengthen adjacent areas, including securities lending.

"Competition is the right way to go," Rodrigo Velasco, BIVA's director of operations, told Global Investor. "Although Mexico's fixed income market is deep and liquid, our equity market continues to lag behind. This spills over to securities lending, which works pretty well in Mexico but hasn't seen enough development in terms of supply and demand on the equity side."

Part of the problem, Velasco admits, is that only a handful of hedge funds are based or domiciled in Mexico, and do most of their business in the US. "Right now we're working with institutional investors, brokers, banks and regulators who are very open to sensible market adjustments, which would create a level playing field similar to what clients are used to in the US. Crucially, we want to create a flexible securities lending environment, not a restrictive one."

In June, Deutsche Bank analysts met with BMV. In a note to clients, Deutsche Bank said the exchange expects that the government will issue certain types of securities to foster competition between both itself and BIVA. Meanwhile, brokers will have to be connected to both platforms, increasing costs, but creating leeway to find best execution.



Deutsche Bank added that BMV was not aware of the 5% stake buildup by B3 (Brazilian stock exchange) until it was disclosed. There is no commercial agreement between the two stock exchanges. More than a 5% stake would require shareholder approval and more than a 10% stake would require government approval. The company sees more potential synergies with a US stock exchange (although given the political context, it looks remote) than with B3, as the trading between the two countries is very limited

Peru

S tock lending at the Lima Stock Exchange (BLV) was relaunched in May 2015 with the Millennium system, with the objective to enhance the liquidity of the Peruvian stock market. Elimination of capital gain tax at the exchange in 2016 also boosted the prospects of the new lending mechanism.

The Millennium system allows local pension funds to participate as lenders. Another feature is to allow collateral in the form of equities and bonds, in addition to cash. It also simplifies the valuation and settlement procedures for corporate events or extraordinary situations.

Miguel Angel Zapatero, central business and development manager at BLV, says: "Interested parties will operate on the exchange through Peruvian broker agents. They can chose what to lend and with who, and with what collateral. Borrower default risk is mitigated by collateral that represents at least 120% of the amount of the loan, with haircuts if needed."

A third-party also participates in the process; Cavali, the local CSD. "The collateral is segregated for the benefit of each party at Cavali, which also calculates the daily mark-to-market, performs the margin calls and is bankruptcy-remote by law. Finally, as to political rights, these are transferred to the borrower while economic rights remain with the lender."

So far, 10 trades have been carried out for a total negotiated amount of S/ 612,000, of which 88% was negotiated during 2016, with one transaction being made for the first time ever by a pension fund, as of the start of May.

The mechanism is in its introductory phase and in order to ensure successful participation of foreign investors, BVL is working on a GMSLA appendix for Peru, with additional work underway at Cavali to allow participation of international sub-custodians. Pension fund lendable assets are available, according to Zapatero, so the work is now focused on creating appropriate conditions for the borrowers and other potential lenders.

Scotia Sociedad Agente de Bolsa S.A. (ScotiaBolsa), a local brokerage firm in Peru, was asked by BLV and local pension providers (AFPs) to help expand the securities lending product to off-shore investors and prime brokers to help jumpstart dormant local volumes.

Cristina León, director, head of sales and trading, institutional equities, ScotiaBolsa, says: "Working with the AFP's, Cavali, and Scusa [Scotia's US broker-dealer] we ran multiple tests that helped close many of the gaps in the process.

"We also have worked with Citibank and Cavali to design a shadow reporting process that would provide any foreign broker with reporting autonomy rather than having to rely on the local broker for reporting," which she says Scotia felt was "a bit too opaque".

"Lastly we have taken the lead, along with the BVL, to engage local counsel to draft a Peruvian appendix to the GMSLA, which should make the legal aspects much easier to understand and acceptable to non-Peruvian counterparts."

United States

he value of US assets made available for lending reached a new high of \$9.36trn in May 2017, according to FIS statistics. The figure – a dramatic increase compared to the \$7.1trn available in May 2016 – was driven by rising asset valuations combined with beneficial owners returning to the US lending market, which is already by far the largest globally.



Borrowing demand has failed to keep up with

the record supply and consequently loan revenues have fallen. For the year until the end of May, US loan revenue for agents and their beneficial owners across equity and fixed income (excluding gains from collateral reinvestment) totalled \$1.61bn, a 12.4% decline compared to the same period in 2016.

"On a macro level, you observe that the US markets have marched up and to the right for the last year," says Nick Rankin, managing director, co-head of global prime services & head of securities finance at Jefferies. "The percentage of stocks that are hard to borrow is relatively low, rebates on shorts are relatively high and trending up, the VIX is at historic lows, and the world seems to bounce from one 'unprecedented' event to another on a weekly basis."

Michael Saunders, head of trading and investments, agency lending North America at BNP Paribas, says that despite the combination of geopolitical events, monetary policy and the perception of declining political risks, market volatility has remained at nearly historic lows. "These factors, along with declining levels of leverage are limiting market opportunities. Despite these challenges, demand for deal-related names and ETF's remain robust," he explains.

Jefferies' Rankin says putting some cheap hedges in place may seem to make sense but notes there is now clarity on the US presidential election, Brexit is going ahead and the recent French presidential result means the European Union has come out in a stronger position than in recent times.

"So, on a relative basis, the world has become less uncertain over the last year, which seems counterintuitive given what we read in the newspapers every day," Rankin adds. "Combine that with the fact that many investors appear to be under-invested and the market continues to shrug off one unprecedented event after another, and there seems to be no obvious catalyst that will greatly impact short conviction in the near future."



The majority of demand Jefferies has seen in the US market has been focused around crowded fundamental ideas, as well as M&A related transactions. "In addition, the healthcare, technology and retail sectors continue to be active," Rankin explains. "On the synthetic side, swaps are a focus for our clients – both on the long and short sides – as well as a growth story for Jefferies. The key drivers are outperformance, balance sheet efficiency, access and operational efficiency, for example custom basket swaps."

BNP Paribas' Saunders says elevated levels of ETF demand are the direct result of political and macro global events. "ETFs linked to specific regions such as Japan (EWJ), Russia (RSX), France (EWQ), Thailand and Brazil, assets classes, such as high yield fixed income, and sectors, such as retail, highlight the increased levels of demand," Saunders adds. "The elevated demand for ETFs offers borrowers cheap exposure from the short side and beneficial owners are reaping the benefits."

Cash vs non-cash collateral

Over the last several years, there's been an increase in noncash collateral pledged by borrowers in the US for securities lending transactions. According to DataLend, non-cash collateral doubled from 25% to 50% of total collateral pledged in the US market from 2014 through 2016. "As a result, collateral use in the US market is becoming similar to the European, Asian and Canadian markets, where noncash collateral continues to be a preferred option to cash," says George Trapp, head of North American client service for securities lending at Northern Trust.

Trapp suggests that lenders should consider the economic trade-offs between accepting different types of collateral, including cash. "With wider usage of non-cash collateral lenders can compare how they are compensated for taking non-cash versus their cash collateral investment option. The first question about taking cash should be relatively easy to quantify based on the incremental returns provided by the cash yield above the overnight benchmark. The second question is determining the appropriate types of non-cash collateral based on the demand for assets in your portfolio. In addition to a higher utilisation rate from accepting broader collateral types, lenders should see higher fees paid for accepting different types of collateral."

An important aspect of taking cash collateral is the

potential benefit of higher interest rates, he adds. "As the yield curve in the short end of the market steepens, most cash collateral funds will benefit from higher returns. Higher nominal interest rates should translate to greater spread opportunity for securities lending over time."

With the regulatory landscape driving US borrowers to pledge more non-cash than in the past, Trapp suggests lenders should consider the types of collateral accepted, the impact on returns and their risk appetite and guidelines. "Lenders that accept a variety of securities lending collateral will be positioned to participate in more loans when there is demand for their securities. While the current trend is pointing towards more non-cash collateral being pledged in the US, lenders that have a diversified collateral schedule that includes cash can potentially benefit from market dynamics in the short-term money markets."

RMA calls for Dodd-Frank changes

In April, the securities lending committee of the Risk Management Association (RMA) provided comments on parts of the post-Dodd-Frank regulatory framework affecting the securities finance industry and suggested that federal banking agencies to amend the rules.

In a letter addressed to Stephen Mnuchin, the US Treasury Secretary, the committee points to specific examples of regulations that "unduly limits" agency securities lending where they are not fit-for-purpose or do not reflect the actual economic risk. The committee also urged federal banking agencies to refocus on core regulatory principles such as implementing efficient and effective regulation that fosters economic growth and benefits American investors.

"We believe that the federal banking agencies have lost sight of these principles in the flurry of rulemaking since the passage of the Dodd-Frank Act," states the letter, signed by Glenn Horner, chairman of the RMA's securities lending committee.

Recommendations were made by the group, including changes to the methodology for calculating credit exposure for agency securities lending transactions under the Federal Reserve's early 2016 re-proposal of single-counterparty credit limits (SCCL). "The Federal Reserve should not adopt the SCCL as currently proposed," the letter adds. "The re-proposed SCCL borrows a flawed methodology that grossly overstates the risk of agency securities lending transactions, discourages sound risk management practices."

A recent survey conducted by the RMA's securities lending committee revealed that if the SCCL were adopted as proposed, many of the largest US banks would be required to drastically scale back their lending to their largest counterparties: the US broker-dealers that are the critical financial intermediaries in the securities markets.

Another RMA recommendation calls for withdrawal of the Collateral Haircut Approach and the adoption of either the Basel Revised Comprehensive Approach or the Simple VaR methodology for measuring credit exposure for securities financing transactions under the SCCL. Thirdly, federal banking agencies should revise the risk-weight for exposures to securities firms under the federal banking agencies' Capital Rules to be consistent with the Capital Rules in other jurisdictions. Failure to do so places US agent banks at a severe competitive disadvantage relative to non-US banks and severely limits their ability to service the US markets, according to the committee.

Americas Securities Finance Directory

TECHNOLOGY/SERVICE PROVIDERS

BM&FBOVESPA

Praça Antonio Prado, 48, Rua XV de Novembro, 275, São Paulo 01013-001, Brazil Tel: 55 11 2565 4000 Email: bmfbovespa@bvmf.com.br www.bmfbovespa.com.br/en us/

Market and Business Development Associate Director Guilherme Pimentel gpimentel@bvmf.com.br 55 11 2565 6271

BM&FBOVESPA USA

300 Vesey Street, New York, United States Tel: +1 212 750 4197 Email: bmfbovespa@bvmf.com.br www.bmfbovespa.com.br/en_us/

Chief Representative Officer for North America Marcelo Gualda

mgualda@bvmf.com.br 1 212 750 4197

BROADRIDGE

www.broadridge.com

Product Specialist Peter Abric peter.abric@broadridge.com +1 201 714 3956

CAREY

Isidora Goyenechea 2800, 43rd Floor, Santiago 7550647, Chile Tel: +56 2 2928 2200 Email: carey@carey.cl www.carey.cl

Partner Diego Peralta dperalta@carey.cl +56 2 2928 2216

Partner Felipe Moro fmoro@carey.cl +56 2 2928 2231

Associate Vesna Camelio vcamelio@carey.cl +56 2 2928 2216

CLOUDMARGIN

31 West 34th Street New York, NY 10001, United States Tel: +1 646 757 4876 Email: info@cloudmargin.com www.cloudmargin.com

Chief Marketing Officer Kari Litzmann kari.litzmann@cloudmargin.com +1 6467574874

CONSORTIUM LEGAL

Del Hospital Militar 1 Cuadra al Norte, Managua 2382, Nicaragua Tel: (505) 2254 5454 Email: nicaragua@consortiumlegal. .com

www.consortiumlegal.com

Partner Olga Barreto obarreto@consortiumlegal.com (505) 2254 5454

Partner Rodrigo Taboada rtaboada@consortiumlegal.com (505) 2254 5454

EQUILEND

225 Liberty Street, 10th Floor, Suite 1020, New York, NY 10281, United States

Chief Operating Officer Dan Dougherty dan.dougherty@equilend.com +1 212 901 2248

The Exchange Tower, 130 King Street, Suite 1800, P.O. 427, Toronto, ON M5X 1E3, Canada

Director, EquiLend Canada Alexa Lemstra alexa.lemstra@equilend.com +1 416 865 3395

BONDLEND

Global Product Owner Tim Keenan tim.keenan@equilend.com +1 212 901 2289

DATALEND

Global Product Owner Nancy Allen nancy.allen@equilend.com +1 212 901 2262

DEBEVOISE & PLIMPTON

919 Third Avenue, New York, NY 10022, United States Tel: +1 212 909 6566 www.debevoise.com

Partner/Co-Head of FIG Gregory Lyons gjlyons@debevoise.com +1 212 909 6566

Associate Chen Xu cxu@debevoise.com +1 212 909 6171

DEUTSCHE BOERSE GROUP GLOBAL FUNDING AND FINANCING MARKETS





Eurex Clearing 233 South Wacker Drive, Suite 2450, Chicago, IL 60606, United States Tel: +1 312 544 10 00 Email: gff-sales@deutsche-boerse.

com www.eurexclearing.com

Funding & Financing Markets Tim Gits tim.gits@deutsche-boerse.com +1 312 544 1091

FIS GLOBAL

340 Madison Avenue, New York, NY 10173, United States Tel: +1 (646) 445 1000 Email: getinfo@fisglobal.com www.fisglobal.com

EVP, Astec Analytics, Securities Finance and Processing, FIS Global Tim Smith Tim J.Smith@fisglobal.com +1 603 894 0850

GLOBAL INVESTOR GROUP



Institutional Investor Inc. 1120 6th Ave, New York, NY 10036, United States Email: info@globalinvestormagazine.com www.globalinvestorgroup.com

Deputy Editor Andrew Neil andrew.neil@euromoneyplc.com +1 212 224 3770

IHS MARKIT

620 8th Avenue, 35th Floor, New York NY 10018, United States www.markit.com

Managing Director Edward Marhefka edward.marhefka@markit.com +1 917 441 6900

LOMBARD RISK

205 Lexington Avenue, 14th Floor, New York, NY 10016, United States Tel: +1 212 682 4930 Email: info@lombardrisk.com www.lombardrisk.com

Managing Director, Americas John Groetch John.Groetch@lombardrisk.com +1 646 432 9972



One North Wacker Drive, Suite 500, Chicago, IL 60606, United States Tel: 1 312 322 6200 Email: investorservices@theocc.com www.theocc.com/

Senior Vice President and Chief Commercial Officer Chip Dempsey cdempsey@theocc.com 1 312 322 1814 First Vice President, Product Development Amy Lawson alawson@theocc.com 1 312 322 2044

ONECHICAGO

311 S. Wacker Drive, Suite 1700 Chicago IL 60606, United States Tel: +1 312 883 3410 Email: info@onechicago.com www.onechicago.com

Delta1 Sales Bill Griffo wgriffo@onechicago.com +1 312 883 3424

COO Tom McCabe tmccabe@Onechicago.com +1 312 805 2820

PIRUM



Head of North American Business Development Justin Thiron justin.thiron@pirum.com +1 917 494 4044

PLEECO

222 Broadway, New York, NY 10038, United States Tel: +1 (917) 720 6543 Email: info@pleeco.com www.pleeco.com

CEO Vitalii Malyshev vital@pleeco.com +1 (917) 720 6543

TRADINGAPPS

401 Park Ave South, 10th Floor, New York, NY 10016, United States Tel: +1 (347) 560 8797 Email: info@tradingapps.com www.tradingapps.com

Director of Sales Chris Valentino chris.valentino@tradingapps.com +1 (347) 560 8797

TRI-PARTY AGENTS

BNY MELLON



101 Barclay St, 4th Floor, New York, New York 10286, United States www.bnymellon.com

Securities financing activities Tri-party Collateral Financing Activities: Borrow/ Pledge, Repo, Margin Segregation

Main collateral types Global Fixed Income, Global Equities

MD, Global Head of Collateral Management and Segregation Sales Drew Demko andrew.demko@bnymellon.com +1 212 815 4450

MD, Global Head of Financial Institutions and Intermediaries John Templeton john.templeton@bnymellon.com +1 212 815 4476

J.P.Morgan

383 Madison Avenue, Floor 11, New York, NY 10179, United States www.jpmorgan.com/is

Executive Director, Collateral Management Michael Katz michael.i.katz@jpmorgan.com +1 212 622 0876

Executive Director, Sales – Collateral Management Robert Bosse robert.f.bosse@jpmorgan.com +1 212 622 9546

SECURITIES FINANCE, SYNTHETIC FINANCE & PRIME BROKERAGE

ABN AMRO



100 Park Avenue, 17th Floor, New York, NY 10017, United States Tel: +1 917 284 6701 www.abnamro.com

Senior Executive: Alexander Lange alexander.lange@abnamro.com +1 917 284 6701

Trading: Tom Zarcone tom.zarcone@abnamro.com +1 917 284 6721

Luis Carvajal luis.carvajal@abnamro.com +1 917 284 6722

Dave Colaizzo david.colaizzo@abnamro.com +1 917 284 6726

Sales: Cliff Condon cliff.condon@abnamnro.com +1 917 284 6737 Mike Dwyer michael.dwyer@abnamro.com +1 917 284 6706

ABN AMRO CLEARING CHICAGO LLC

175 W. Jackson Boulevard, Suite 400 | Chicago, IL 60604, United States

Head of Securities Finance and Treasury US Timothy J. Taylor timothy.taylor@us.abnamroclearing.com +1 312 604 8422

Head of Securities Finance US Sean Frey sean.frey@us.abnamroclearing.com +1 312 604 8468

BANK OF AMERICA MERRILL LYNCH

Bank of America 🧐 Merrill Lynch

One Bryant Park, New York, NY 10036, United States Tel: +1 646 855 0770 Email: prime@baml.com www.corp.bankofamerica.com/ business/ci/home

Global Head of Equity Finance Trading Jonathan Barton jonathan.barton@baml.com +1 646 855 2224

Americas Head of Securities Lending Robert Genkinger robert.genkinger@baml.com +1 212 449 5237

Global Head Asset Optimization Group Matthew Scott matthew.r.scott@baml.com +1 212 449 9778

Head of US Prime Brokerage Jon Yalmokas jon.yalmokas@baml.com 1 646 855 5888

BARCLAYS PLC

745 7th Avenue, New York NY 10019, United States Tel: +1 212 526 0363 www.barclays.com

Head of Prime Financing Sales Tom Luglio thomas.luglio@barclays.com +1 212 526 0363

Global Head of Prime Financing, Equities Mike Webb michael.webb1@barclays.com +1 212 412 6878

Head of Prime Financing, Equities, US Matt Roux matthew.roux@barclays.com +1 212 526 9025

Head of FI Financing, Securitized, US George Van Schaick george.van-schaick@barclays.com +1 212 412 7680 Head of FI Financing Liquid Markets, US Geoff Allen geoff.allen@barclays.com

+1 212 412 6810 Head of Prime Financing Sales Synthetics, US Brian O'Hagen brian.o'hagen@barclays.com

+1 212 526 9025

BMO CAPITAL MARKETS



1 First Canadian Place, 100 King Street West, Toronto, ON M5X 2A1, Canada Tel: +1 416 359 4493 www.bmocm.com

Securities financing activities: Global Equities Prime brokerage activities: Synthetics and Equity Repo Other offices: U.S., Dublin, Melbourne, and London

Director John Loynd john.loynd@bmo.com +1 416 359 4493

Director David Pugliese David.Pugliese@bmo.com +1 416 359 7513

Vice President Doug Howard Doug.Howard@bmo.com +1 416 359 4493

Associate Stefan Papich Stefan.Papich@bmo.com +1 416 359 4493

3 Times Square, New York City, NY 10036, United States Tel: +1 212 702 1233

Co-Head Global Prime Brokerage Tony Venditti anthony.venditti@bmo.com +1 212 702 1215

Co-Head Global Prime Brokerage Jordan Lupu jordan.lupu@bmo.com +1 212 605 1550



Managing Director – U.S. Products Brian Paganelli brian.pagnanelli@bmo.com +1 212 702 1233

Director Mike Flaumenbaum Michael.Flaumenbaum@bmo.com +1 212 702 1233

Vice President Mary Beth Mrowka MaryBeth.Mrowka@bmo.com +1 212 702 1233

Director Tom Vicary Thomas.Vicary@bmo.com +1 212 702 1233

Vice President Martin Leis Martin.Leis@bmo.com +1 212 702 1233

Vice President – TRS Dave Amar David.Amar@Bmo.com +1 212 702 1952

Director – Delta One Trading Jay Lubin Jay.Lubin@bmo.com +1 212 702 1802

Vice President – Delta One Trading Alistair Morgan Alistair.Morgan@bmo.com +1 212 702 1802

Managing Director – International Trading

Doug Tveter Doug.Tveter@bmo.com +1 206 224 7061

BMO GLOBAL SECURITIES LENDING

115 S. LaSalle Street, 11W, Chicago, IL, 60603, Tel: +1 312 461 2500 Email: bmogam.strading@bmo.com www.bmo.com/gam

Managing Director – Head of Agency Lending

Christopher Kunkle christopher.kunkle@bmo.com +1 312 461 7660

Director – Head of Trading LJ Jhangiani Ij.jhangiani@bmo.com +1 312 461 7638

Director – Sales/Distribution Daniel Hoover daniel.hoover@bmo.com +1 312 914 9158

BNP PARIBAS SA



The bank for a changing world

787 Seventh Avenue, New York NY 10019, United States Tel: + 1 (212) 471 6762 Email: dl.psfprimeservicesamericas@ us.bnpparibas.com www.bnpparibas.com

Head of Prime Solutions & Financing, Americas Jeff Lowe jeff.lowe@us.bnpparibas.com +1 (212) 471 6812

Head of Prime Services, Americas JP Muir jp.muir@us.bnpparibas.com +1 (212) 471 6831

Head of Equity Securities Financing, Americas Brian Cahalan brian.cahalan@us.bnpparibas.com

+1 (212) 471 6574 Head of Prime Services Sales Trading.

Americas Thomas Guagliardo thomas.guagliardo@us.bnpparibas.com +1 (212) 471 6566

Head of Structuring, Americas John Roglieri john.roglieri@us.bnpparibas.com +1 (212) 841 3532

Head of Prime Services New York Sales

Kevin Darling kevin.darling@us.bnpparibas.com +1 (212) 471 6571

Head of Prime Services San Francisco Sales

Sean Rooney sean.rooney@us.bnpparibas.com +1 (415) 772 1523

Head of Prime Services Chicago Sales Robert Luzzo robert.luzzo@us.bnpparibas.com

+1 (312) 237 3321 Head of PS&F Risk Management,

Americas Alex Bergelson alex.bergelson@us.bnpparibas.com +1 (212) 471 6533

Head of Investor Capital Services Tom Mahala tom.mahala@us.bnpparibas.com +1 (212) 841 3792

BNP PARIBAS SECURITIES SERVICES AGENCY LENDING BNP PARIBAS SECURITIES SERVICES

787 Seventh Avenue, New York NY 10019, United States

Head of Trading and Investments, North America Michael Saunders michael.saunders@us.bnpparibas.com +1 212 841-3816

BNY MELLON



- Securities financing activities: Stock lending and borrowing, Corporate bond lending and borrowing, Equity & Fixed Income Repo
- Main collateral types: Major Currencies, Global Fixed Income, Global Equities

320 Bay St., 9th Floor, Toronto, Ontario M5H-4A6, Canada

www.bnymellon.com

MD, Regional Head of Equity Finance Phil Zywot phil.zywot@bnymellon.com +1 416 775 5900

Desk Manager Daniel Yardin dan.yardin@bnymellon.com +1 416 775 5900

Trader Taras Sidorenko taras.sidorenko@bnymellon.com +1 416 775 5900

Trader Zisis Siotas zisis.siotas@bnymellon.com +1 416 775 5900

Trader Dennis Hervatin dennis.hervatin@bnymellon.com +1 416 775 5900

Desk Manager Chris Tigert chris.tigert@bnymellon.com +1 416 775 8750

Trader Wesley Cook Wesley.cook@bnymellon.com +1 416 775 8750

101 Barclay St, 4th Floor, New York New York 10286, United States

EVP, BNY Mellon Markets James Slater james.slater@bnymellon.com +1 212 815 4401

MD, Global Head of Equity and Fixed Income Finance Robert Chiuch robert.chiuch@bnymellon.com +1 212 815 2646

MD, Global Head of Equity Repo Larry Mannix larry.mannix@bnymellon.com +1 212 922 4626

MD, Regional Head of Fixed Income Finance Pat Garvey patrick.garvey@bnymellon.com +1 212 815 2317

Desk Manager Susan Szerbin susan.szerbin@bnymellon.com +1 212 922 7960

Trader Brendan Flynn brendan.flynn@bnymellon.com +1 212 922 7960

MD, Regional Head of Equity Finance Richard Marquis richard.marquis@bnymellon.com +1 212 815 2618

Trader Jackson Tse jackson.tse@bnymellon.com +1 212 922 7000

Trader Christa Gallagher christa.gallagher@bnymellon.com +1 212 922 7600

Desk Manager William Merlino william.merlino@bnymellon.com +1 212 922 7000

Trader Mark King mark.king@bnymellon.com +1 212 922 7000

Trader Andrew Stroh andrew.stroh@bnymellon.com +1 212 922 7000

Trader Janet Love janet.love@bnymellon.com +1 212 922 7000

Trader Eddie Burmester eddie.burmester@bnymellon.com +1 212 922 7000

Trader Michael Weber Michael.Weber@BNYMellon.com +1 212 922 7000

MD, Head of Principal Securities Finance Mark Haas mark.haas@bnymellon.com +1 212 815 4330

MD, Principal Securities Finance Kieran Lynch kieran.lynch@bnymellon.com +1 212 815 2242

Desk Manager Dennis Cahill Dennis.Cahill@bnymellon.com +1 212 922 7300

Trader Tanya Lincevski Tanya.Lincevski@bnymellon.com +1 212 922 7300

BROWN BROTHERS HARRIMAN & CO.

50 Post Office Square, Boston, MA 02110-1548, United States Tel: +1 617 772 1818 www.bbh.com/securitieslending

Global Head of Securities Lending Keith Haberlin keith.haberlin@bbh.com +1 617 772 6553

Head of Relationship Management and Business Development – Americas Julie Hubbard julie.hubbard@bbh.com

+1 617 772 6855

Securities Lending Associate Chris Griffin chris.griffin@bbh.com +1 617 772 2410

CITI

390 Greenwich Street, New York, United States Tel: +1 212 723 7137

Global Head of Funding and Principal Securities Lending John Nicholson john.nicholson@citi.com +1 212 723 3278

Equity Funding, Director Joshua Kurek joshua.a.kurek@citi.com +1 212 723 7681 US Head of Securities Lending Supply, Managing Director Tom Conti

thomas.j.conti@citi.com +1 212 723 7600

Global Head of Sales, Investor Services Managing Director Alan Pace alan.pace@citi.com +1 212 723 5199

US Head of Prime Brokerage Sales, Managing Director David Tenney david.tenney@citi.com +1 212 723 9080

Head of US Delta One Sales, Managing Director Paul Cipriano Paul. cipriano@citi.com +1 212 723 7137

CITI

390 Greenwich Street, New York, United States Tel: +1 212 723 3110 www.citibank.com/mss/products/ investor svcs/securities finance/

NAM Head of Agency Lending Trading John Bilello john.bilello@citi.com +1 212 723 3110

NAM Head of US Equity Trading Christine Mattone christine.m.mattone@citi.com +1 212 723 3106

NAM Head of International Lending William Mascaro william.mascaro@citi.com +1 212 723 3110

NAM Head of US Government Trading Vincent Laudati vincent.laudati@citi.com +1 212 657 6300

NAM Head of Cash Reinvestments Anthony Tutrone anthony.tutrone@citi.com +1 212 723 3370

CREDIT SUISSE

Eleven Madison Avenue, New York, 10010 3629, NY, United States Tel: +1 212 325 3040 www.credit-suisse.com

Managing Director Frederick Nadd-Aubert frederick.nadd-aubert@credit-suisse.com +1 212 325 3040

DEUTSCHE BANK

60 Wall Street, NY, NY, 10005, United States Tel: +1 212 250 7272 Email: tim.smollen@db.com www.db.com

Global Head of Agency Securities Lending Tim Smollen tim.smollen@db.com +1 212 250 4611

Head of US Sales, Agency Securities Lending Joseph Santoro joseph.santoro@db.com +1 212 250 4492

Head of US Trading, Agency Securities Lending Anthony Toscano anthony.toscano@db.com +1 212 250 4015

DEUTSCHE BANK SECURITIES INC

60 Wall Street, 4th Floor, New York, NY10005, Tel: +1 212 250 8000 www.db.com

Director, Head of Securities Lending North America James Lailey james.lailey@db.com +1 212 250 5742

Managing Director, North American Head of Prime Brokerage Matt Bowen

matthew.bowen@db.com; +1(212)250 1985

Managing Director Natalie Horton natalie.horton@db.com +1 212 250 8887

Managing Director, Synthetic Flow Swaps John Arnone john.arnone@db.com +1 212 250 4990

Director, Synthetic Equity Sales Powell Fraser powell.fraser@db.com +1 212 250 8802

ESECLENDING

175 Federal Street, 11th Floor, Boston, MA, 02110, United States Tel: +1 (617) 204 4500 Email: info@eseclending.com www.eseclending.com Managing Director, Business Development Peter Bassler pbassler@eseclending.com +1 617 204 4566

FIDELITY PRIME SERVICES

200 Seaport Blvd, Boston MA 02210, United States Tel: +1 617 563 7419 Email: Fidelityprime@fmr.com

SVP-Prime Brokerage Sales James Coughlin James.Coughlin@fmr.com +1 617 392 9123

SVP-Securities Finance Ugyen Sass Ugyen.Sass@fmr.com +1 617 392 8068

VP-Securities Finance

Justin Aldridge justin.aldridge@fmr.com +1 617 563 7419

GOLDMAN SACHS AGENCY LENDING

125 High Street, Oliver St. Tower, Suite 1700, Boston, MA 02110, United States Tel: +1 617 204 2400

www.gs.com Vice President Mark Whipple Mark.whipple@gs.com +1 617 204 2451

Vice President

Christian N. Bodner Chris.Bodner@gs.com +1 617 204 2412

Vice President Christel Carroll christel.carroll@gs.com +1 617 204 2476

HSBC SECURITIES INC



425 Fifth Avenue, New York, NY 10016, United States Tel: 1 212 525 0180 www.gbm.hsbc.com

Head of Equity Finance & Delta One – Americas Warren McCormick warren.mccormick@us.hsbc.com 1 212 525 0180 Head of Prime Finance Sales – Americas Paul Busby paul.d.busby@us.hsbc.com

paul.d.busby@us.hsbc.com 1 212 525 0170

Head of Index & Delta One Trading - US

Jerome Berthaud jerome.berthaud@us.hsbc.com 1 212 525 0180

Securities Lending Trader Emil Plataroti emil.plataroti@us.hsbc.com 1 212 525 0180

Securities Lending Trader Trevor Pyner trevor.j.pyner@us.hsbc.com 1 212 525 0180

Equity Finance Sales Adam Weberman adam.s.weberman@us.hsbc.com 1 212 525 0180

Equity Finance and Delta One Sales Carey Chamberlain carey.chamberlain@us.hsbc.com 1 212 525 0180

Equity Finance and Delta One Sales

Thomas Pietrobelli thomas.d.pietrobelli@us.hsbc.com 1 212 525 3282

Head of Securities Financing Thomas Fumai thomas.fumai@us.hsbc.com 1 212 525 0870

Trading William T Child william.child@us.hsbc.com 1 212 525 0300

Edward Frederick edward.frederick@us.hsbc.com 1 212 525 0153

Prime Finance Sales & Marketing Kevin Nowlin kevin.m.nowlin@us.hsbc.com 1 212 525 0164

ING FINANCIAL MARKETS



1133 Avenue of the Americas, New York, NY 10036, United States Tel: +1 646 424 7036 Email: INGGSFNYUSELR@ing.com www.ingcb.com

Regional Head of GSF Equities Artie DiRocco artie.dirocco@ing.com +1 646 424 7036

Regional Head of Fixed Income Repo Peter Diminich peter.diminich@ing.com +1 646 424 7530

ITG

One Liberty Plaza, 165 Broadway, New York, NY 10006, United States Tel: +1 (212) 588 4200

Managing Director Operations Anthony T. Portelli Anthony.Portelli@itg.com +1 (212) 444 6431

Co-Head of Securities Finance Charles A. Vesce Jr, Director Charles.Vesce@itg.com +1 (212) 588 4288

Co-Head of Securities Finance Peter E. Caruso, Director Peter.Caruso@itg.com +1 (212) 588 4288

Equity Trader Janet Fusco, Vice President Janet.Fusco@itg.com +1 (212) 588 4288

Fixed Income Trader Roy Treadwell, Vice President Roy.Treadwell@itg.com +1 (212) 588 4288

JEFFERIES LLC

520 Madison Avenue, New York NY 10022, United States Tel: +1 212 336 7200 www.jefferies.com

Co-Head of Prime Services/Head of Global Securities Finance Nick Rankin nrankin@jefferies.com +1 212 444 4322 Head of US Equity Securities Finance Anthony DeMonte +1 212 336 70620 ademonte@jefferies.com

Head of Fixed Income Securities Finance Matt Troy mtroy@jefferies.com +1 212 336 7044

j.p.morgan J.P.Morgan

4 New York Plaza, Floor 12, New York, NY 10004, United States www.jpmorgan.com/is

Managing Director, Sales – Agent Lending Bill Smith william.z.smith@jpmorgan.com

+1 212 552 8075 Executive Director, Agent Lending

James Gerspach james.g.gerspach@jpmorgan.com +1 212 552 8030

Executive Director, Agent Lending Robert Taub robert.taub@jpmorgan.com +1 212 552 8044

J.P.Morgan

 383 Madison Avenue, New York, United States
Tel: +1 212 272 2486
www.jpmorgan.com/primebrokerage

Managing Director, US Head of Equity Finance Michael Kelleher

michael.w.kelleher@jpmorgan.com +1 212 272 2230

Executive Director, US Financing and Collateral Michael DiCesare michael.e.dicesare@jpmorgan.com

+1 212 622 2372

Executive Director, US SBL Trading Michael Sisto Michael.J.Sisto@jpmorgan.com +1 212 622 2560

Managing Director, Co Global Head of Prime Financing Paul Brannan Paul.Brannan@jpmorgan.com +1 212 622 0503 Managing Director, US Head Prime Brokerage Sales Brian Bisesi brian.bisesi@jpmorgan.com

+1 212 622 3659 Executive Director, US Client Financing Gregory Dodd gregory.r.dodd@jpmchase.com +1 212 272 1100

Managing Director, US Head of Synthetic Finance Cyril Dosmond cyril.dosmond@jpmorgan.com +1 212 622 2827

Executive Director, US Synthetic Trading Usman Nasar usman.nasar@jpmorgan.com +1 212 622 2674

Executive Director, US Synthetic Trading Jitendra Jaisinghani Jitendra: Jaisinghani@jpmorgan.com +1 212 622 2739

LBBW NEW YORK BRANCH

280 Park Avenue, West Building, New York, 10017 New York, United States Tel: +1 (0) 212 5841733 Email: repodesk@lbbw.de www.lbbw.de

Head of Securities Financing Dominick Emmanuelli dominick.emmanuelli@lbbwus.com +1 (0) 212 5841743

Senior Repo Trader Andrew Eastwood andrew.eastwood@lbbwus.com +1 (0) 212 5841733

Repo Trader Joseph Tavella joseph.tavella@lbbwus.com +1 (0) 212 5841744

MORGAN STANLEY & CO

1585 Broadway, New York, NY 10036, United States Tel: +1 212 761 9765 Email: @morganstanley.com www.morganstanley.com

Managing Director Anthony Schiavo Anthony.Schiavo@morganstanley.com +1 212 761 9765

Managing Director Tejash Patel Tejash.Patel@morganstanley.com + 1 212 761 7006

Managing Director Kim Shaw Kim.Campagna@morganstanley.com +1 212 761 8405

Managing Director Scott Pecullan Scott.Pecullan@morganstanley.com +1 212 761 8805

Managing Director Timothy Rice Timothy.Rice@MorganStanley.com +1 212 761 5708

Managing Director Thomas Kinnally thomas.kinnally@morganstanley.com +1 212 761 1891

Managing Director Carolyn Sargent carolyn.sargent@morganstanley.com +1 212 761 8396

Executive Director Chris Owens Christopher.Owens@morganstanley.com +1 212 761 1820

NATIXIS



1251 Avenue of the Americas, New York, NY 10020, United States Tel: (1) 212 891 1830 www.natixis.com

Managing Director, Head of Equity Finance Americas/Global Head, Equity Finance Client Strategies Group Dennis Shikar

dennis.shikar@us.natixis.com +1 212 891 1830

Trading Saverio Costa saverio.costa@us.natixis.com +1 212 891 1973

Trading Thomas Collins thomas.collins@us.natixis.com +1 212 891 1895

Trader Delta One Franck Beon franck.beon@us.natixis.com +1 212 698 3280

NORTHERN TRUST

145 King Street W, Suite 1910, Toronto, ON CA M5H IJ8, Canada Tel: +1 416 363 0666

www.northerntrust.com/securitieslending

Canadian Securities Lending Manager Dave Sedman ds111@ntrs.com +1 416 363 0666

50 S. LaSalle St, B12, Chicago, IL 60603, United States Tel: +1 312 630 6486

Deputy Global Head – Securities Lending Jeff Benner jsb1@ntrs.com +1 312 557 8860

Head of North American Trading Mark Skowron mss@ntrs.com +1 312 630 8913

Head of US Fixed Income Trading Dan Awe dsa2@ntrs.com +1 312 557 5421

PERSHING LLC

One Pershing Plaza, Jersey City, NJ 07399, United States Tel: +1 204 413 4400 Email: stockloansales@pershing.com Email: repo.desk@bnymellon.com www.pershing.com

Managing Director Mark Aldorty mark.aldoroty@pershing.com +1 201 413 4445

Managing Director Michael Madaio michael.madaio@pershing.com + 201 413 4191

Trading Steve Lamentino slamentino@pershing.com +1 201 413 4400

Managing Director Peter Murphy pemurphy@pershing.com +1 201 413 2637

Director John Seyda john.seyda@pershing.com +1 201 413 2237

Trading Gary Schetelich gschetelich@pershing.com +1 201 413 4066

PRUDENTIAL FINANCIAL

7th Floor, 655 Broad Street, Newark, NJ 07102, United States

Vice President Robert Grogg Jr. robert.grogg@prudential.com +1 973 802 3201

Managing Director John McIntyre john.mcintyre@prudential.com +1 973 802 3042

Vice President Jonathan Linken jonathan.linken@prudential.com +1 973 802 3201

RABOBANK INTERNATIONAL

245 Park Avenue 37th Floor, New York NY 10167, United States www.rabobank.com

Head of Securities Finance & Repo New York Matthew Courtney matthew courtney@rabobank.com

matthew.courtney@rabobank.com 1 212 916 7903

RBC INVESTOR & TREASURY SERVICES



Royal Bank Plaza, 200 Bay Street, 2nd Floor, North Tower, Toronto, Ontario M5J 2W7, Canada Tel: +1 416 955 5500 www.rbcits.com

Desk Head, Securities Finance Mary Jane Schuessler maryjane.schuessler@rbc.com +1 416 955 5500

Managing Director, Securities Finance Donato D'Eramo donato.deramo@rbc.com +1 416 955 5500

Securities Finance Arthur Kolodziejczyk arthur.kolodziejczyk@rbc.com +1 416 955 5500

Director, Securities Finance, Client Management Adnan Hussain adnan.hussain@rbc.com +1 416 955 6901

Associate, Securities Finance Trevor Carlin trevor.carlin@rbc.com +1 416 955 5400

Securities Finance Peter Bolovis peter.bolovis@rbc.com +1 416 955 5400

SCOTIABANK



40 King Street West, 65th Floor, Toronto, ON, Canada www.scotiabank.com

Head Trader – Agency Lending Pat Spadafora, Associate Director pat.spadafora@scotiabank.com +1 416 863 7757

Head of Securities Lending Canada Stewart Udall, Director stewart.udall@scotiabank.com +1 416 863 7757

Head of Collateral Management and Funding Martin Weeks, Managing Director

martin.weeks@scotiabank.com +1 416 933 3728

Senior Trader – Collateral Management and Funding Phil King, Director philip.king@scotiabank.com +1 416 863 7927

Trader Neil Ashby neil.ashby@scotiabank.com +1 416 863 7927

Head of Prime Services Canada Daniel Dorenbush, Managing Director Daniel.Dorenbush@scotiabank.com +1 416 863 3992

Head of Prime Brokerage Canada Caroline Sidle, Director Caroline.Sidle@scotiabank.com +1 416 863 7447

250 Vesey St, 24th Floor, New York, NY, 10281, United States

Global Head of Prime Services John Stracquadanio, Managing Director john.stracquadanio@scotiabank.com +1 212 225 6626

Global Co-Head, Securities Lending Brendan Eccles, Managing Director brendan.eccles@scotiabank.com +1 212 225 6680

Head of US Securities Lending Daniel Barone, Director daniel.barone@scotiabank.com +1 212 225 6680

Global Product Manager – Agency Lending Gene Picone, Director gene.picone@scotiabank.com +1 212 225 6587

Global Head of Prime Services Sales Alfredo D'Onofrio, Managing Director alfredo.donofrio@scotiabank.com +1 212 225 6715

Head of Client Management Lauren Malafronte, Managing Director lauren.malafronte@scotiabank.com +1 212 225 6623

Co-Head of US Repo/Collateral Management Frank Ambrosi, Director frank.ambrosi@scotiabank.com +1 212 225 6589

Co-Head of US Repo/Collateral Management Ray Gilmartin, Director ray.gilmartin@scotiabank.com +1 212 225 6678

SEB AB NEW YORK

245 Park Avenue, New York NY 10167, United States Tel: +1 212 692 4795

Securities Lending Ted Langworthy Ted.langworthy@sebny.com +1 212 692 4795

Securities Lending Bjoern Karringer Bjoern.karringer@seb.se +1 212 692 4795

SG AMERICAS SECURITIES, LLC

245 Park Ave, New York, NY, 10167, United States Tel: +1 212 278 5314 Email: us-stockloandesk@sgcib.com

Director, Head Equity Finance Flow Americas Joseph Puliafico joseph.puliafico@sgcib.com

+1 212 278 5314 Head of One Delta Swap Trading,

Americas Salim Nemouchi salim.nemouchi@sgcib.com

+1 212 278 5216 Head of Securities Finance & Delta One Sales, Americas

Nathalie Bockler nathalie.bockler@sgcib.com +1 514 841 6109

STANDARD CHARTERED BANK



1095 Avenue of the Americas, 36/F, New York, United States Tel: +1 646 845 1355 www.sc.com

Money Market & Financing Sales, Americas

Thomas Fennell thomas.fennell@sc.com +1 646 845 1355

STATE STREET BANK AND TRUST

State Street Financial Center, 30 Adelaide Street, Toronto Ontario, Canada

www.statestreetglobalmarkets.com

Head of Canada Trading Steve Novo SDNovo@statestreet.com +1 647 775 6061

Head of Business Development & Client Management, Canada Charles Murray CMurray@statestreet.com +1 647 775 7614

One Lincoln Street, Boston MA, 02111, United States

Global Head of Trading, Agency Lending

James McDonald J-F-McDonald@statestreet.com +1 617 664 1734

Global Head of Enhanced Custody John McGuire jpmcguire@statestreet.com +1 617 664 0584

Head of Trading, North America Matt Johnson MJohnson@StateStreet.com +1 617 664 9184

Head of Client Management, North America Tim Bias TABias@StateStreet.com +1 617 664 0771

Head of Supply Management and Counterparty Relations Eric MacDonald egmacdonald@statestreet.com +1 617 664 2535

Head of Business Development, North America James Bryant Jim.Bryant@statestreet.com +1 617 664 7569

Business Development, North America Michael Freundlich MIFreundlich@StateStreet.com +1 617 664 3587

Business Development, North America Pearse McDowell PDMcDowell@StateStreet.com +1 617 664 5909

Head of US Equity Trading Rich Sutherland rpsutherland@statestreet.com +1 617 664 8780

Head of Business Development & Client Management, Canada Betsy Coyne BCoyne@StateStreet.com +1 617 664 2647

Head of US Fixed Income Trading Michael Mulka MMulka@statestreet.com +1 617 664 2513

SWISS REINSURANCE COMPANY LTD

New York, United States Tel: +1 212 317 5028 Email: Collateral_Trading@swissre. com

www.swissre.com

Collateral Trader Anthony Cinquemani Collateral_Trading@swissre.com +1 212 317 5028

Collateral Trader Larry Ward Collateral_Trading@swissre.com +1 212 317 5028

TD SECURITIES

222 Bay Street, 7th Floor, Toronto, Ontario, M5K 1A2, Canada Tel: +1 416 307 8500 www.tdsecurities.com

Director David St. Germaine David.St.Germaine@tdsecurities.com +1 416 982 6109

Vice President Alberto Rodriguez Alberto.Rodriguez@tdsecurities.com +1 416 982 6109

Associate Kristina Miner Kristina.Miner@tdsecurities.com +1 416 982 6109

Managing Director Steve Banquier Steve.Banquier@tdsecurities.com +1 416 983 9444

Managing Director Peter Petsopoulos Peter.Petsopoulos@tdsecurities.com +1 416 308 7319

31 W. 52nd Street, New York, NY, 10019, United States Tel: +1 212 827 7000

Managing Director Kenneth Silliman Kenneth.Silliman@tdsecurities.com +1 212 827 7327

Director John Ryan Jr. John.RyanJr@tdsecurities.com +1 212 827 7349

Associate Thomas Polacek Thomas.Polacek@tdsecurities.com +1 212 827 7157

TIMBER HILL LLC

1 Pickwick Plaza, Greenwich CT 06830, United States Tel: +1 203 618 5827 Email: thseclending@timberhill.com www.interactivebrokers.com

Securities Lending Manager William Pepe wpepe@interactivebrokers.com +1 203 618 5873

VP, Securities Lending Services Bruce Turner bturner@interactivebrokers.com +1 203 618 4005

Securities Lending Trader Richard Coleman rcoleman@interactivebrokers.com +1 203 618 5836

UBS AG

1285 Avenue of Americas, New York, NY 10019, United States Tel: +1 212 713 3100 www.ubs.com

Head of Stock Loan Trading, Americas Brendan Cusick Brendan.cusick@ubs.com +1 212 713 3100

Head of Securities Lending Sales – Americas Edward Barnes Edward.Barnes@ubs.com +1 212 713 1111

Trading Kip Graham kip.graham@ubs.com +1 212 713 3100

WELLS FARGO SECURITIES

375 Park Avenue, New York 10152, United States Tel: 212 214 6033 www.wellsfargo.com/prime

Managing Director Robert Sackett robert.sackett@wellsfargo.com +1 212 214 6033

Director Divesh Kapahi divesh.kapahi@wellsfargo.com +1 212 214 6033



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For more information, please contact Anand Krishnan, Head of Securities Finance Americas Tel.: + 1 212 891 6111 - anand.krishnan@us.natixis.com

