NORTHERN TRUST

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GLOBAL SECURITIES LENDING MARKET INTELLIGENCE NEWSLETTER

Welcome to Northern Trust's quarterly Global Securities Lending Market Intelligence newsletter. We are dedicated to providing you with timely and transparent communication about recent industry trends in the securities lending market.

In this issue, we provide third quarter trading and cash collateral reinvestment commentary from our experts, as well as updates on recently attended conferences and regulatory environment.

Northern Trust's securities lending team continues monitoring market conditions while focusing on capitalizing on the demand for our clients' securities. We will keep you informed of market developments and securities lending program changes in the coming year in our conversations with you and through this quarterly newsletter.

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TRENDS IN BORROWER DEMAND

UNITED STATES – EQUITY

The third quarter saw continued gains for U.S. equity markets, mainly driven by robust quarterly earnings reporting, stable economic growth, low volatility and continued support from central bankers. Despite mounting tension with North Korea, a deadly U.S. hurricane season and escalating political turmoil, the major U.S. equity indices all posted gains for the quarter: S&P 500 +3.96% , Dow Jones +4.94% and NASDAQ +5.79%. A robust quarterly reporting season and further weakness in the dollar were additional tailwinds as U.S. equities recorded new highs.

Sentiment was undimmed by increased political uncertainty amid rising tensions with North Korea and the ongoing failure of the Trump administration to realize its policy goals. In the wake of hurricanes Harvey and Irma, both economic data and forward-looking activity indicators deteriorated towards the end of the quarter.

The U.S. employment situation continued its positive momentum, with continued growth during the quarter. The Federal Reserve's (Fed) view of inflation, while still subdued, is expected to rise as the economy continues to exhibit signs of growth.

The Federal Open Markets Committee (FOMC) confirmed that measures to reduce its balance sheet would begin in October, despite persistently weak inflation. The Fed also signaled that another rate hike is possible for the December meeting (current target rate is 100-125 bps), given a strong labor market and steady economic expansion.

The CBOE Volatility Index (VIX), a measure of future stock price volatility, continued to trade at or near historic lows during the quarter and finished the quarter down 15%. Lower levels of volatility and the sustained rally in equity prices kept many hedge funds on the sidelines during the quarter and contributed to ongoing short covering. Hedge funds continue to maintain a net long conviction, with few willing to bet that the market will decline anytime soon. Short

interest on the New York Stock Exchange (NYSE) saw a 1% uptick for the quarter, mainly during the month of September.

Borrower demand remained largely focused on directional trading strategies with the highest conviction of short interest seen for these sectors: internet media, automotive retailers, healthcare, pharmaceuticals, bio-pharma, telecom carriers, transportation & shipping, software and consumer discretionary. Auto and retail sectors continue to be struggle while broad-based economic growth (as measured by GDP) continues to be sluggish even as stock markets soar to record highs. Commodity prices experienced a recovery from the second quarter sell-off, particularly in energy, as oil prices edged higher throughout the quarter. Snap Inc. and Under Armour were notable names during the quarter. Snap Inc. was one of the top revenue producing stocks, with demand largely driven by negative directional play. Lending fees on Under Armour, which has seen a 50% decline in its share price year-to-date, remained elevated during the quarter as a result of an increase in short demand.

UNITED STATES – FIXED INCOME

An improving economy and employment outlook have raised investor's expectations of future rate hikes. Though the Fed held rates steady at their July and September meetings, heightened expectations of rate hikes contributed to larger intrinsic spreads in the securities lending market. Demand from borrowers to pledge noncash collateral remains robust. Pledging collateral including U.S. Agencies, as well as Canadian and Japanese sovereign debt is a more cost effective source of U.S. Treasuries for borrowers.

Well publicized corruption and political turmoil in several emerging markets contributed to higher securities lending demand in these markets. The energy sector, including producers and suppliers, remains the sector with the largest demand. Low prices for oil and gas and high debt burdens remain hurdles for these issuers. The retail sector struggled to generate profits in the face of stronger online competition and with Amazon's purchase of Whole Foods.

CANADA – EQUITY

Aided by strong results in the energy and financial services sectors, the S&PTSX Composite Index ended the third quarter up 3%. Crude Oil futures rebounded off previous six month lows as the Organization of Petroleum Exporting Countries (OPEC) decrease in production began to take hold, moving crude prices above $50 p/bbl. Pressure on Canadian bank profit margins eased with the Bank of Canada stepping up interest rates to 100 bps from 50bps over the quarter. Demand within securities lending for these two sectors fell slightly as hedge funds unwound some of their directional short strategies in the face of rising asset prices, particularly in the energy sector.

The Canadian IPO market was active for most of the year, having now recorded $3 billion in new issues with pharmaceutical companies claiming the spotlight for the third quarter. Even with the progress made in the Canadian IPO market to date, this has not translated into any meaningful securities lending demand.

The Canadian specials market continued to benefit from demand across the alternative mortgage finance sector. This sector continues to face investor scrutiny, helping fuel borrower activity. Hedge funds placed a negative bias on the sector as a whole after Home Capital Group Inc.'s (HCG) liquidity challenges and sudden implosion dragged down the alternative mortgage lender sector in the second quarter. Healthcare and specialty pharmaceutical sectors continued to face a negative bias, driving demand and generating higher fees versus the previous quarter. Hedge funds continued to hold their position in light of any further negative outcomes in reported earnings. Many Canadian retailers continue to examine restructuring opportunities in order to produce cost efficiencies and avoid insolvency. Several names across the construction and exploration and development sectors continue to hold borrowers' interest.

As with previous quarters, a large portion of the revenue generated from Canadian equities is driven by dividend yield enhancement trades, coupled with the dividend reinvestment plan (DRIP) trade. Continued demand from borrowers to pledge various forms of non-cash collateral, primarily equities and corporate debt, in addition to cash, has dominated the securities lending market, providing opportunities for market participants who are flexible between these collateral types within their risk parameters.

CANADA – FIXED INCOME

Strong economic data, including second quarter GDP reported at 4.5% per annum, spurred the Bank of Canada (BoC) into action through the third quarter. Armed with supporting data for monetary tightening, the BoC boosted the key overnight rate over two separate meetings in the third quarter, from 50bps to 100 bps. The Canadian dollar surged on the back of the rate moves, increasing over 8%, closing out the quarter end just over 4% higher against the U.S. dollar. The yield on the Canadian 10 year benchmark increased over 30 bps from its low at 1.79% to 2.10% in tandem with BoC rate increases for the quarter.

Higher than normal inventory turnover, due in part to the increase in the overnight rate by the BoC, has kept shorter term duration issues, as well as the benchmarks, in high demand. The overall make-up of borrower's balances remained consistent with continued demand for Canadian sovereign debt issuances. Stable demand from sustained shorting pressure continued throughout the third quarter within the communications, construction, mortgage and real estate sectors.

Evolving Basel and Investment Industry Regulatory Organization of Canada (IIROC) regulation continues to be a key driver of borrower behavior. Liquidity rules from Basel and IIROC create the need for banks to hold higher levels of high-quality liquid assets (HQLA). This in turn has strengthened the demand for Government of Canada (GoC) issuances, particularly when structured on a term basis.

EUROPE/MIDDLE EAST – EQUITY

European equity markets resumed their upward trend in the third quarter, with both the EURO STOXX 50 and the MSCI Europe indices closing approximately 4% up for the quarter. Strong economic data released late in the quarter helped ease concerns relating to the potential negative impact a stronger Euro could have on the regions export competiveness. During September, the Index of Industry and Consumer sentiment reached its highest point for over a decade, supporting the strong economic growth the region continues to deliver. As expected, the re-election of Angela Merkel as German Chancellor for a fourth successive term had little effect on the region's equity markets, despite her Christian Democratic Union party receiving a greatly reduced share of the vote.

Investor's positive sentiment towards Europe's economy continued to help support strong net in-flows of capital across the hedge fund sector in the third quarter. Despite this, securities lending balances remained relatively flat, as funds continue to maintain a strong net long bias to capitalize on rising markets. Equity long / short strategy funds have generally posted some of the highest returns in 2017 and continue to attract a greater share of new capital inflows.

Specials demand in Europe was mainly focused on those sectors most impacted by the wider macro-economic themes of lower commodity prices, a weaker pound and softer consumer demand. In the oil sector, companies that support the oil supply chain were a source of continued directional demand as oil producers reduce capital expenditure budgets. In the UK, whilst the full implications of Brexit remain unclear, expectations of slower long term growth has resulted in depreciation in the value of the pound. Those companies most exposed to a weaker sterling have continued to attract hedge fund demand. These include selected supermarkets, retailers and home builders.

As consistent with previous years, European yield enhancement demand reduced quarter over quarter as fewer companies were distributing their dividends in this period. France and the Netherlands were the main source of yield enhancement borrower demand. Pricing remained largely consistent with previous quarters, although on-going sensitivities around balance sheet capacity and rising collateral costs continue to represent a key headwind in this space.

In the UK, price arbitrage opportunities created by optional stock dividend distributions continued to attract robust demand. Lower levels of market volatility and softer dividend yields were the catalyst for some compression in lending spreads during the quarter.

EUROPE/MIDDLE EAST – FIXED INCOME

Global central banks indicated a gradual reduction in monetary policy stimulus over the quarter following improvements to the economic backdrop. The European Central Bank (ECB) telegraphed that changes to the Quantitative Easing (QE) program will be announced during the fourth quarter. The Fed announced balance sheet normalization will begin in October, and will likely be followed by a further 25 basis point rate increase before the end of the year. Finally, the Bank of England (BOE) are also on course to raise the base rate this year, with very low levels of unemployment overriding any political concerns emanating from Brexit negotiations.

In the Euro area, improving data and consumer sentiment has led policy makers to increase rhetoric over the aforementioned asset purchase tapering. A reduction in the pace and volume of QE will likely be very gradual, hence bond scarcity concerns have failed to dissipate in full. As such, a number of core sovereign bonds traded with special value over the quarter. Fees to borrow German bunds enjoyed the highest premium as borrowers sourced HQLA for regulatory demands, in addition to cheapest-to-deliver issuance ahead of futures contract delivery dates.

A one-notch ratings downgrade of the United Kingdom by Moody’s had little effect on UK assets, with demand for gilts broadly unchanged. However, expectations that the Monetary Policy Committee (MPC) will increase the base rate by 25 basis points this year may lead to an uptick in demand. Aside from sovereign bonds, UK corporates have been well sought in lending markets given the uncertainty surrounding Brexit and potential effect on the domestic economy. Correspondingly, issuers in the restaurant industry have been well sought during the quarter, with fees widening as a consequence.

Finally, continued geopolitical tensions maintained volatility in emerging markets (EM), though this was not enough to temper positive momentum. A number of factors have been at play to maintain the gains in EM, with investors continuing to seek yield amongst globally depressed rates, well-telegraphed policy measures from the Fed and an orderly and cautious approach to withdrawing stimulus by global policy makers. However, distinct geopolitical risks remained in play and are an important driver of differentiation by country and region in terms of lending demand. For example, Latin American assets displayed volatility after the U.S. placed sanctions on new Venezuelan debt issuance. As a result, we continued to see strong interest to borrow Venezuelan sovereign and state-owned oil producer PDVSA issuance. Russian bonds have also been trading with value after the sovereign announced plans for a debt swap, from pre-existing issuance into newly issued bonds maturing in 2027 and 2047.

ASIA – EQUITY

Asia-Pacific markets continue to push higher as speculation around U.S. economic growth policies remains strong enough to withstand heightened political tension in the region. A weakening U.S. dollar combined with geopolitical concerns pushed commodity prices higher, particularly gold and oil, which benefitted exporters in the region. The market environment tempered securities lending demand as traditional long/short investment strategies continued to

favor a long bias, capitalizing on rising equity markets. However, there continues to be select pockets of demand particularly for securities with weak fundamentals and convertible bond arbitrage trading opportunities.

Japan benefitted from strong earnings in the third quarter as GDP beat estimates for the quarter and the Nikkei was up close to 2%, benefitting from the weakened Yen in September. In general, solid market performance translated to softer securities lending demand, however the impact was slightly offset by stock specific demand focusing on large cap securities with weak fundamentals. Seasonal demand over the key September record dates bolstered securities lending performance for the quarter, providing additional revenue.

In Hong Kong, the Hang Seng Index saw another 6% increase for the quarter, once again negatively impacting securities lending demand. However, the Chinese government's announcement of a plan to prohibit the production of all petrol and diesel cars in the near future drove demand in a select number of automotive firms. In addition, real estate firms with exposure to mainland China remained in demand.

Australian indices were generally unchanged for the quarter as losses in the financial sector countered gains in the resource sector. Increasing capital requirements from local regulators on Australian Banks have resulted in certain banks raising their capital levels through the re-introduction of discounted dividend reinvestment plans (DRP). This has positively impacted the securities lending market, enhancing revenue streams from arbitrage opportunities. Consumer discretionary retailers continue to be at the forefront of borrower demand as profit margins are expected to narrow with a potential pre-Christmas launch of Amazon in Australia.

Developing Asia-Pacific markets have maintained momentum through much of the year as South Korea continued to generate strong exports and Taiwan benefitted from accommodative monetary policy. After an extremely strong second quarter the main indices were flat for the third quarter with strong economic performance being muted by the geo-political uncertainty in the region. This overall strong performance trend prompted a reduction in hedge fund demand for directional shorts however, small and mid-cap securities remained in high demand based on quantitative investment strategies.

CASH COLLATERAL REINVESTMENT TRENDS

Sentiments around the timing of rate hikes met great turbulence over the past quarter. Markets started off relatively split on whether the Federal Reserve (Fed) would change their interest rate policy at the December meeting, but quickly moved towards the 'no' camp as several unexpected developments unfolded over time. While these events in isolation may not have been enough to introduce serious doubt in the markets, the closeness of their occurrences left investors feeling wary. Hurricanes Harvey and Irma were the first unknowns as the extent of their damage on the economy initially remained unpredictable. However, despite the stir that these storms caused, past experience has shown pressures from natural disasters are ephemeral and not likely to steer the economy off course in the medium term. Immediately after uncertainty from the hurricanes began to settle, President Trump signed a bill that raised the nation's borrowing limit for three months to provide aid for victims of Harvey. His decision came as a shock to the Republicans since only days earlier the party had wanted Harvey relief to be connected to a longer-term debt ceiling hike for credit market stability purposes. With the new debt ceiling extension date of December 15, new risk is presented for investors with more focused purchases on US government bills. Further complicating matters, that same day Stanley Fischer, Vice Chairman of the Fed, announced his resignation for "personal reasons" and is scheduled to leave around mid-October. Fischer's imminent departure leaves the seven-person board of governors with as few as three sitting members, including Janet Yellen, whose term is set to expire in February with no clear indication of what her plans are after. Central Bank composition and leadership changes remain concerns for many investors as the December meeting

date approaches. Nevertheless, even with all these variables, the Fed is poised to go at the end of the year and shows no intention of changing its plans.

At the September Federal Open Market Committee (Committee) meeting, the Fed forecasts still signal another hike in 2017 and three more in 2018. The Committee also plans to initiate the balance sheet normalization program in October and begin shrinking their $4.5 trillion worth of assets. Much to the market's surprise, the Committee's statement came across as hawkish though the data does not appear to reflect that same level of optimism and confidence. The labor market came off of highs from the previous quarter and fluctuated in the mid to high 100,000s range for job gains (respectively 138,000 and 169,000 for July and August), with the exception of September payrolls falling 33,000 from hurricane aftereffects. Interestingly, a positive from the report is jobless rate dropped in September to 4.2% and wage growth was up 0.5% month over month (MoM). Wage growth largely came from utility-worker overtime pay, thus we are cautious not to extrapolate from this latest reading until more consistency is present. The decline in unemployment rate, conversely, could be a reliable signal of reduced slack in the labor market since this series is usually less susceptible to hurricane disruptions. Still, we will continue to monitor the numbers carefully to identify any meaningful patterns. Consumer Price Index (CPI) has been steadily gaining momentum since last quarter, moving at an incrementally even pace of 0.1-0.2% per month. CPI year over year (YoY) was 1.6% for June, 1.7% for July and 1.9% for August. Core PCE, another Fed favorite inflation metric, was less impressive and held constant at 0.1% MoM for the entire quarter. PCE YoY trended slightly downwards, declining from 1.5% in June to 1.4% in July and 1.3% in August. Along that vein, the median of FOMC participants updated their PCE expectations at the latest meeting and now anticipate hitting the 2% inflation goal in 2019 rather than their original June forecast. In the Quarterly Summary of Economic Projections, the Committee narrowed their range of the forecasted federal funds rate for the end of 2017 to 1.1% - 1.4%. The 2017 U.S. forecasted unemployment rate declined at 4.2% - 4.3%. Additionally, the Committee slightly increased its gross domestic product forecast to 2.2% - 2.5% for 2017 from 2.1% - 2.2% and decreased its inflation forecast to 1.5% -1.6% for 2017 from 1.6% to 1.7%. The 10-year Treasury yield climbed significantly after the September meeting, meaning investors were expecting a potentially slower rate path in the future. Markets are currently showing a 76.7% chance of a December rate hike.

Bank of England (BOE) left monetary policy unchanged at 0.25%, kept asset purchase target at 435 billion pounds and left corporate bond purchase target at 10 billion pounds during their recent September meeting. But even with the increased 7-2 majority vote to keep rates steady, markets were left wondering if a hike could happen as soon as November given the bank's hawkish language. MPC members concluded a "continuing erosion of slack" and "gradual rise in underlying inflationary pressure" would support stimulus reduction in the coming months. The bank now sees inflation reaching 3% in October. Of course, any future interest rate increases would be both limited and gradual. Since the announcement, a February 2018 hike has been fully priced in the markets versus prior thoughts of a mid-2018 increase. The pound rose and was up 0.8% at $1.33 and odds of a November hike now sit at 79.2%. Yet some investors are still not fully convinced Mark Carney, Governor of the BOE, will actually deliver as he has been known for talking up the markets in the past. Additionally, it is not a secret the BOE believes the market is underpricing two-way risk and wants to further drive that point home. Either way, the BOE might be on a faster tightening schedule than originally planned.

The European Central Bank (ECB) also left its policy unchanged as expected. Main refinancing rate and deposit facility rate remained the same at 0% and -0.4% respectively. ECB comments quantitative easing (QE) will "run until inflation path has sustainably adjusted" and "can be increased in size and duration" if the outlook worsens. The bulk of decisions on future QE will probably be solidified in October. Changes in the bank's forecasts included raising 2017 GDP estimate to 2.2% and cutting Inflation projections to 1.2% and 1.5% for 2018 and 2019. Mario Draghi, President of the ECB, did highlight the euro as a source of uncertainty and must be monitored, although not to be of concern right now. Overall, there were no big shocks in the language of the statement and ECB sees a "broadly unchanged" medium-term outlook.

The U.S. Federal Reserve instructed its Open Market Trading Desk (the Desk) to execute $2 trillion in overnight Reverse Repurchase Agreements (RRP). The overnight RRP operations were open to all eligible counterparties and U.S. Treasuries were used as collateral with the goal of ensuring liquidity in the short term money market. Money market participants welcomed the additional collateral due to limited supply of investment opportunities during year-ends. On September 28, there was $220.1 billion in interest of overnight RRP at 100 basis points, notably lower than the amount the Desk made available. Shorter dated U.S. Treasury bills (one to three month bills) traded between 90-100 bps in September as investors attempted to bring down their overnight liquidity balances before year-end. Overnight repurchase agreements with broker/dealers traded between 100 and 105 bps. Comparatively, overnight time deposits traded between 115 and 120 bps. The additional repo collateral and overnight time deposits helped money market participants invest all of their cash for quarter-end.

CONFERENCE UPDATES

IMN EUROPEAN BENEFICAL OWNERS' SECURIITES FINANCE AND COLLATERAL MANAGEMENT

Representatives from Northern Trust attended the annual IMN European Beneficial Owners' Securities Lending & Collateral Management Conference in London during September. This year's conference was heavily focused around recent regulation and the impact this has had, and will continue to have on the securities finance industry in general. As a result of the challenging regulatory environment, the securities finance industry is forced to be more dynamic.

The conference began with an opening speech from Nikolay Arnaudov, Senior Officer from the European Securities and Markets Authority (ESMA) providing an overview and update of the Securities Finance Transaction Reporting (SFTR) regulations as well as any other relevant developments – from the regulators perspective. This proved to be of particular interest and a steep learning curve for many of the beneficial owners in attendance, due to not finding themselves on the front line of the securities lending industry. ESMA shared their discomfort with the lack of data in the securities financing world and they expect that SFTR will help address that concern.

Aside from SFTR, the other regulatory focus was on the Markets in Financial Instruments Directive II (MIFID II), although the audience was encouraged not to associate SFTR and MIFID II too closely. Andy Dyson, ISLA CEO talked about how the initial expectation of MiFID II was a "glancing blow" – but now the magnitude of MiFID II is hitting home. A primary concern around MIFID II for beneficial owners focuses around the requirement to have a legal entity identifier as well as unique trade identifier generation which is mandatory for those wishing to lend securities. These requirements will inevitably require additional resource and more sophisticated technology, however the impact and cost of this is expected to be minimal. The noticeable result of increased regulation will be the sharpening and tightening up of data.

Jonathan Lacey, Head of Securities Lending Equity Trading, EMEA, Northern Trust, participated in the "Finding Windows of Opportunity for Extra Revenue Generation" panel which examined the optimization of lending programs for corporate actions and collateral demand. This session began by focusing on the intrinsic value that does still remain in equity portfolios despite low levels of instability and volatility, as well as the positive performance of global equity markets. The need for banks to adapt to the constraints of the current regulatory environment provides an alternative opportunity in the form of term trade activity, which presents a multitude of commercial decisions. Passive portfolios are significantly better suited to this type of trading activity, and collateral is a key consideration due to most structures resembling some form of upgrade trade. Managing term trade activity presents further challenges from a "best execution" perspective ensuring fair allocation to all clients. It was mentioned that single stock term trades are not as wide spread as one might think. This is due to the difficult nature of the gamble described as a "leap of faith" when seeking to price the required premium correctly.

Another panel focused on the securities finance industry in Asia, where the panelists explained that the region presents both an opportunity and a challenge for the industry. This is evidenced by the fact that certain institutional investors and sovereign wealth funds are incredibly sophisticated and experienced in Securities Lending, to the point that many are able to facilitate their own lending. Other players on the contrary require significant education. All Asian markets have significant potential for growth, however head winds such as pre-notification and automatic buy in's slow any growth down significantly. Indonesia and Philippines markets are moving towards opening short selling. India and China represent "fundamental game changers".

GLOBAL INVESTOR/ISF AUSTRALIAN MASTERCLASS

Experts from Northern Trust's Global Securities Lending team attended the Global Investor/ISF South Australian Masterclass conference in Sydney during July. Industry participants gathered to discuss the regulatory landscape, the challenges and opportunities for securities lending and beneficial owner best practices.

Dane Fannin, Head of Capital Markets, Asia-Pacific, participated in a panel along with other industry experts and focused their discussion on challenges and opportunities for the securities lending market. The overwhelming theme is continued regulatory change, the need for homogenization of global regulation to ensure harmonization of rules, and the rising cost of doing business for both agent lenders and prime brokers. It is likely that there will be less new regulation rather than a roll back of existing measures. From a prime broker stand point, balance sheet efficiencies are achieved through the use of term trades; total return swaps; collateral flexibility; sourcing High Quality Liquid Assets (HQLA) particularly within fixed income; and participation in pledge or CCP programs.

From a markets perspective, developed equity markets such as Hong Kong and Japan continue to provide consistent and robust revenues, largely as a function of the deep liquidity in these markets. However, emerging markets like China and India, and more peripherally Vietnam, Indonesia and the Philippines offer good opportunity once there is a viable offshore lending program.

Australian domiciled beneficial owners focused on reasons why they opted to participate in securities lending programs alluding to the low interest rate environment and fiduciary responsibility to members to reduce costs and maximize returns as key drivers. Panelists also discussed best practices that beneficial owners deployed for the continued governance and oversight of their lending programs. Both agent lenders and beneficial owners agree that transparency and communication between both parties is important as it establishes risk appetite and ensures continued adherence to client guidelines. With well managed controls, indemnification was discussed as a last line of defense though beneficial owners on the panel advised they would not easily part with this safety net.

REGULATORY ENVIROMENT

The updates below summarize the status of regulations affecting the securities lending industry and the anticipated impacts that may occur.

BASEL III:

Section	Status	Anticipated Impacts
Capital	US rules finalized July 2013 and effective January 2015 US Treasury responds June 2017 to Executive Order on Core Principles for Regulations	Increased capital requirements will make it more costly for agent lenders to provide indemnification. Suggests that more appropriate risk sensitive methodologies be considered for SL exposures.
Large Exposures	Final Basel III standard released April 15, 2014, securities lending exposures remains open	Similar in concept to Counterparty Concentration Limits; restricts a bank's combined credit exposure to a single counterparty to a portion of the bank's capital.
Leverage Ratio	US rules finalized September 2014. Disclosure requirements starting January 2015 and compliance by January 2018	Exposure for indemnified securities lending to be measured generally by current exposure, which should be negligible given securities lending positions are over-collateralized. Additional leverage ratio impact for any guarantees or exposures beyond replacement securities.
Net Stable Fund Ratio	Final standards published October 2014; US rules proposed May 2016; awaiting adoption of the framework by US regulators	Affects securities lending activity for borrower counterparties (and therefore potentially their demand). Intended to ensure that banks have sufficient stable funding based on their asset profile. Available stable funding (ASF) divided by required stable funding (RSF) must be at least 100%; available stable funding measure is based on liabilities and required stable funding on assets, both weighted by prescribed factors. Potential mismatch in ASF and RSF treatment on the different legs of the borrower transaction
Liquidity Coverage Ratio	Final US rules published September 2014	Affects securities lending activity for borrower counterparties (and therefore potentially their demand). Requires banks to hold enough eligible High Quality Liquid Assets ("HQLA") to cover "Total Net Cash Outflows". May shape borrower demand for certain transactions, including greater use of non-cash collateral.
Haircut Floors	Published in November 2015; comment period ended January 5, 2016	Proposes minimum haircuts on non-centrally cleared securities lending transactions. Agency lending transactions would be exempt when cash collateral is invested in accordance with certain standards and non-cash collateral is not re-used.

DODD-FRANK ACT:

Section	Status	Anticipated Impacts
Counterparty Concentration Limits – 165(e)	Second proposal published in March 2016; awaiting final rules US Treasury responds June 2017 to Executive Order on Core Principles for Regulations	Limits a bank's combined credit exposure to a single counterparty to no more than 25% of the bank's capital. Credit exposure calculations include indemnified securities lending transactions; agent lenders may face constraints on providing indemnification and accepting sovereign debt as collateral. Suggests that more appropriate risk sensitive methodologies be considered for SL exposures (as stated under Basel III, Capital).
Securities Lending Transparency – 984	Awaiting proposed rules (overdue since mid-2012); no clear timeframe for rules to be issued	Requires SEC to increase transparency in securities lending. Expectation is that SEC will develop regulations that align with proposals from the Financial Stability Board's Work stream on Securities Lending and Repo.

FINANCIAL STABILITY BOARD:

Section	Status	Anticipated Impacts
Work stream on Securities Lending and Repos under the FSB Shadow Banking Task Force	Guidelines for minimum margins and haircuts published October 2014 Awaiting adoption of FSB framework by local regulators Northern Trust and other agent lenders participated in a voluntary Fed/OFR pilot study on data collection	Examines securities lending and repurchase agreements Published policy recommendations on transparency, disclosure, minimum standards on cash reinvestment and collateral valuation, and requirements on collateral rehypothecation Experts Group proposed standardized data reporting elements for securities lending and repo transactions Published standards for evaluating margin sufficiency on transactions that are not centrally cleared, which may result in higher requirements. Recommended haircut floors for certain transactions; excluding agency securities lending transactions assuming cash is invested consistently with earlier FSB standards and non-cash collateral is not re-used
Total Loss Absorbing Capacity (TLAC)	US rules finalized in December 2016	GSIBs to be subject to even higher capital requirements; defines instruments eligible to satisfy TLAC requirements.

FINANCIAL TRANSACTION TAX:

Section	Status	Anticipated Impacts
Proposed EU Directive	Implementation now aimed at 2016 / 2017 but significant technical challenges remain	Sets out the framework for a harmonized FTT across 11 participating EU member states. Client purchases, sales and exchanges of financial instruments, the conclusion of derivative contracts, repos, and securities lending transactions are all in scope of the draft document, which is far from final

MIFID II:

Section	Status	Anticipated Impacts
MIFID II	Significant overhaul of Investor protection standards being extended to “professional investors” Implementation January 2018	Greater transparency for investors into services provided by financial institutions including securities lending Additional Securities Lending reporting will be made available Certain disclosures on the way Securities Lending programs are run will be provided by lending agents. May require updates to legal contracts

RESOLUTION STAYS:

Section	Status	Anticipated Impacts
ISDA Resolution Stay Protocol for Securities Finance Transactions	German implementing regulations effective January 2016, UK regulations effective June 2016; US rules finalized in September 2017, with July 2019 effective date ISDA developed protocols specific to each relevant jurisdiction	The ISDA Stay Protocol was implemented for derivatives in 2014 and is being expanded to apply to securities lending and repo transactions. It is intended to address the issue that resolution regimes of one jurisdiction may not be enforceable in other jurisdictions in a cross-border resolution. Adherence to ISDA Stay Protocol is required for G-SIBs and may be voluntary for other market participants, but failure to adhere may affect a lender's ability to lend to certain counterparties that are required to transact only with adhering counterparties May effect termination and default rights of counterparties transacting with G-SIBs and other adhering counterparties for qualified transactions, including securities lending and repo

SECURITIES FINANCING TRANSACTIONS (STFR):

Section	Status	Anticipated Impacts
Transparency of SFTR	Political agreement reached on level 1 text ESMA and the European commission now working on defining what will be required to be reported Implementation timeline not yet defined	Reporting of all Securities Financing Transactions required to give regulators a transparent view of the market ESMA implementation of FSB recommendations Agents likely to report on behalf of beneficial owners but this will be driven by final technical standards

UCITS V:

Section	Status	Anticipated Impacts
UCITS V	Level 2 text expected late 2015 with deadline for transposition into National law in March 2016 ESMA consultation on asset segregation may impact final outcome. ESMA response is now overdue	Harmonization of rules covering core safekeeping and depository oversight for UCITS funds across the EU Enhanced reporting required for depositories to monitor Securities Lending activity for UCITS funds Segregation of assets for UCITS clients potentially impacting collateral processes, similar to AIFMD

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