SECURITIESLENDINGTIMES

2012

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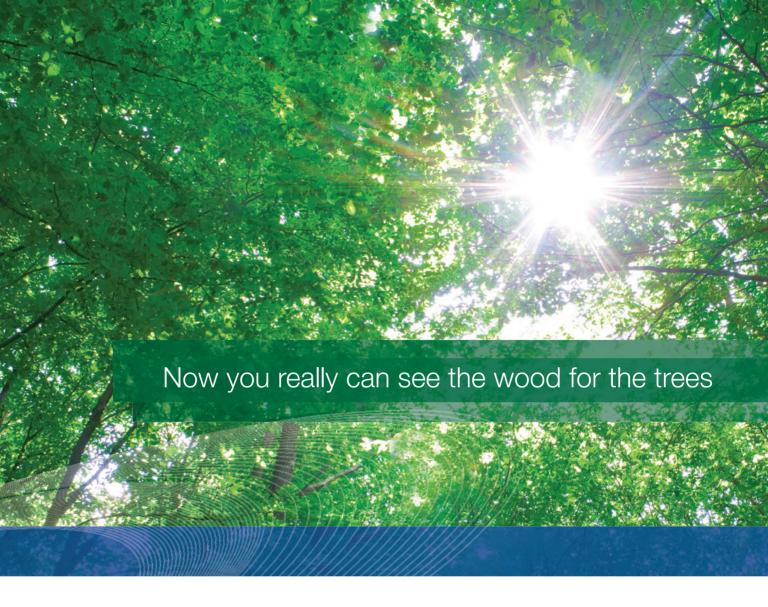
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Published by Black Knight Media Ltd 16 Bromley Road Beckenham Kent, BR3 5JE UK

Company reg: 0719464 Copyright © 2011 Black Knight Media Ltd. All rights reserved. While we're no longer in the dog days of late 2008 and 2009, there's no doubt that the securities lending market continues to remain below its all time highs.

The conservatism in the market, along with the low interest rate environment and concern amongst investors about economies in the eurozone and elsewhere, mean that margins are being cut, profits are being squeezed and budgets are falling across the board.

Combined with an ever-changing and demanding regulatory requirement, firms involved in securities lending need to make sure they are at the top of their game in all aspects of their business.

This means that they need to be as transparent as possible, as efficient as possible and as close to the leading edge as possible when it comes to making the right trades and spotting the best opportunities.

And, as in all aspects of finance, technology plays a leading role. While investing in technology at a time of tight budgets may seem like an unnecessary expense, failing to do so could prove a false economy.

This is a fast-evolving industry, and companies that don't keep up are unlikely to prosper when significant growth finally returns.

In this guide, we look at all aspects of the technology required within the securities lending industry, as well as the subsidiary services that play such an important role in keeping the business moving.

For while the industry has - as a result of the changing financial landscape - had to retrench and rethink its priorities, technology firms, and technology specialists within the providers, have been looking at ways of making the whole market more effective.

There are, of course, many different points of view about which is the right way forward. And obviously, the right way for one organisation may not be the best option for another. But we hope this guide gives you food for thought about the best way to take your business to the next level.

Ben Wilkie Editor



Going auto

Securities Lending Times speaks with John Grimaldi of SunGard's North American securities operations and securities finance business, about his time in the industry and challenges the market faces

BIG INTERVIEW

SLT: Graduating from St. John's University in New York, how did you end up in the world of securities lending?

John Grimaldi: I was originally going to pursue a legal career, but while I was still in school, I realised that a legal career was not right for me. I quickly decided that I wanted to work on Wall Street like two of my relatives, who worked on the floors of the New York and American Stock Exchanges.

But my first job wasn't on a floor - it was in the back office operations of Pershing LLC. (then a division of Donaldson, Lufkin & Jenrette), a large broker dealer. I started in a clerical role in the securities lending department. I continued to take on responsibilities and worked my way up to vice president during the 14 years I spent there. At the time of my departure, I was responsible for several operational groups.

business unit through a number of securities lending and brokerage operkey initiatives, including agency lend- ations, you have probably seen a lot of ing disclosure of principle (ALDoP) challenging times, how would you deregulatory requirements and auto- scribe the post Lehman environment? mated recall management (ARMS). What has given you the most satisfaction over the years?

Grimaldi: Being involved in any industry initiative is very satisfying, especially considering the many changes during the last 10 years. When there's an issue that needs to be solved, the industry usually comes together and through much collaboration we develop the necessary solutions. I really appreciate the opportunity to participate in those discussions and to help move things forward in the right direction for the industry.

SLT: You have led SunGard's Loanet SLT: With over 25 years of experience in

Grimaldi: There's still a lot of uncertainty about some aspects of the business. The post crisis economic environment and continued historic low interest rates have not been conducive for the securities finance business. Coupled with regulatory uncertainty, the securities finance business has seen considerable contraction. There are some small signs that we maybe be heading out of this general malaise, but it will require some consistent improvement in the economy and clarity around the looming regulatory reforms. I would hope that the regulatory agencies sort out their concerns in 2012, and make known the direction they want to head in, so that the industry can begin to deal with the changes and put in place the necessary controls and procedures. Hopefully we will see a recovery in the latter part of 2012.

SLT: How has the industry's need for technology changed?

Grimaldi: Efficiency continues to be the top priority for our customers. However, the reasons for this demand have changed over time. Before the crisis, the industry was expanding, with new markets opening up to securities finance. Trading activities and transactional volumes were on the rise, and many firms needed to increase automation to expand their business.

After the crisis, economic conditions have driven the industry into a cost cutting mode requiring greater efficiencies to reduce the total cost of doing business. Technology will also have to move faster in order to provide more real time data that regulators and internal management will continue to demand to comply with new regulations and monitor and mitigate risk.

SLT: How do you see the various impending regulations being introduced affecting the industry's technology need?

Grimaldi: Clearly the regulatory changes in the securities finance space will have an impact on capital and capital utilisation. But there is still a lot of uncertainty about the exact effects. If you look at the Dodd-Frank Act, just one paragraph discusses the need for greater transparency in the securities finance markets. It doesn't say what "transparency" means. Will industry participants need to report transactions in real time? Will they be required to report open borrow and loan positions on a nightly or monthly basis? It's not clear. The regulators are still sorting it out.

SLT: SunGard is now offering same day securities lending data through SunGard's Astec Analytics Lending Pit solution. What has been the response?

Grimaldi: The introduction of real-time data is one example of how we are using technology to help our customers prepare for the regulatory requirements, and it has been well-received. By providing real-time securities lending data throughout the day, we're increasing transparency in the market. For example, participants can see the movement of fees and rebates on securities as the transactions are occurring.

SLT: You recently said, "The securities finance industry continues to move towards automated trading and is constantly looking at ways to streamline its trading activities." Is there really evidence of this?

Grimaldi: Our customers continue to ask us

for ways to automate the trading aspects of the business and provide more business intelligence around the data. We've already built a significant amount of functionality and integration with the AQS platform, which is tied to a central counterparty (CCP), and we expect that usage to grow over time. Additionally, we anticipate other trading venues to enter the marketplace and we will be ready to support them when the time comes. I believe automated trading for securities finance is inevitable. The only uncertainty is when it will become a reality.

SLT: What is your take on the CCP debate and how do you see it progressing?

Grimaldi: This brings me back to my point about the regulators' definition of transparency. If the regulators decide that increasing transparency in the securities lending market means utilising a CCP, then the adoption of CCPs will move forward at a more rapid pace. Otherwise, given the current environment, CCPs will face a difficult time getting industry adoption as resources are constrained and may not be available to perform the work required in integrating with a CCP. There has to be a driving force – either a regulatory change or potentially beneficial capital treatment, to move the industry towards greater adoption.

The recent closure of SecFinex suggests that the adoption of CCPs will be even slower outside the US.

SLT: How do you see the securities lending industry evolving?

Grimaldi: There will be a continued push for operational and trading efficiencies by the industry given the current economic conditions. The industry needs to do more with less as we prepare for anticipated regulatory changes. Once the regulatory changes have been defined, I'm optimistic that they will provide opportunity for both industry participants, and the technology firms supporting them. This is just the next chapter in an industry that continues to evolve and grow. I have spent close to 30 years in this business, and it continues to challenge and engage everyone involved. SLT



John Grimaldi Executive vice president SunGard Our customers continue to ask us for ways to automate the trading aspects of the business and provide more business intelligence around the data

Pillar box

Adrian Morris of MX Consulting explains how Solvency II will impact the agent lender community

MARKET INSIGHT

In 2012, the focus and leading priority for many IT departments that service securities lending businesses will be the provision of risk, compliance and regulatory reporting - a reflection of the wave of regulation that is engulfing financial services. Agent lenders who have insurance fund clients will have to contend with Solvency II, driven by the European Insurance and Occupational Pensions Authority (EIOPA), which like Basel II for banks, is driving insurance companies to supply large quantities of data to the requlator. EIOPA and the FSA both currently state that the new regime will go live on 1st January 2013 when it will replace the Solvency I requirements and the current regulatory regime for insurance supervision for firms in the UK.

There are three pillars of Solvency II, Pillar 1, 'Quantitative Capital Requirements'; Pillar 2, 'Qualitative Supervisory Review; and Pillar 3, 'Supervisory Reporting and Public Disclosure'. Pillar 3 concerns market discipline and has a provision that means any agent lending on behalf of insurance funds will need to supply Quantitative Reporting Templates (QRT) information to the insurance companies for onward provision to the regulator. Two templates - D5 for loans trade data and D6 for collateral positions - will need to be supplied to the beneficial owners. There is also potential that data supplied in the Pillar 3 QRTs could be used within Pillar 1.

ISLA has already reviewed and commented to the FSA on the provision of data within the two templates. It is fair to say that some of the information required is not standard to securities lending and that the provision of data between loan and collateral positions does not align itself that well compared with that which is utilised for current regulatory disclosures like ALD (Agent Lending Disclosure) or for normal day to day business management reporting. The FSA has advised that EIOPA is reviewing responses from the public consultation held in November 2011 on Solvency II reporting. EIOPA will publish final 'Level 3' guidance in respect of reporting during early 2012. It is probable therefore that there will be some further changes to the loan and collateral templates requirements at some point in 2012.

It is unlikely, however, that the ambiguous descriptions of the requirements will be fully clarified. Agent lenders will need to carefully analyse the meaning of the requirements and spend time educating those individuals working for insurance companies on the wider Solvency II data gathering projects about the securities lending

ess with the regulator. Clients may also demand additional data for their own internal risk models which can further complicate matters.

In the past many agent lenders have relied on spreadsheets or tactical solutions to supply regulatory data or find that current in-house reporting packages have sufficed. The problem with Solvency II reporting for agent lenders is that it has additional complexities involved in the gathering and mapping of data that such solutions will not adapt to so readily. Now that agent lenders face so much additional scrutiny from beneficial owners it is incumbent on them to ensure that the data supplied to insurance fund clients is correct in order to protect this discretionary activity and its income stream. If an insurance fund client has issues with the regulator caused by the provision of incorrect data the funds first and most likely course of action is to review involvement with the lending programme. Beneficial owners have now become very sensitive to any issues that arise with regulators and see no short term benefit other than the most conservative of responses.

The addition of attributes that are not normally required means that agent lenders will need to find a way to source the data either internally from in-house securities databases or externally with securities vendors such as Bloomberg or Reuters. Both loan and collateral securities also have to be mapped to more than one type of new asset class which is defined by Solvency II.

In recent years the majority of agent lending businesses have switched to using tri-party agents to collateralise their daily loan positions. Many agent lenders only hold within their systems the total collateral value for each borrower and lending legal entity. This is problematic for Solvency II reporting purposes as the actual daily underlying positions of the collateral will need to be communicated to the beneficial owner and regulator. Further issues arise as in-house securities databases will not necessarily be able to reference attributes like the clean price for bonds for collateral securities allocated by the tri-party agent each day as there is no relationship to any securities positions the agent lender may normally source data for.

Many agent lenders also have multiple tri-party agents. This means that collateral positions required by the regulator will need to be received in from each agent before being utilised for Solvency II purposes. This leads to another prob-

business and guide them in the reporting proc- lem in that collateral held by the tri-party agent is allocated by counterparty. However, the collateral for Solvency II needs to be allocated at the fund legal entity level. So a further complexity is that any solution needs to be able to pro-rata the collateral based on the overall legal entity fund loan value for each counterparty.

> These are only some of the issues that Solvency II creates concerning the management of securities loan and collateral data and it should be obvious to the reader that the analysis and solution requirements for this regulatory regime requires a high level of analysis and thought and that tactical solutions are unlikely to give the level of comfort required.

> Given that insurance company beneficial owners are running large and complex programmes of work for Solvency II they will be demanding the full attention of their agent lenders in 2012 to meet their own internal deadlines. SLT

Future developments

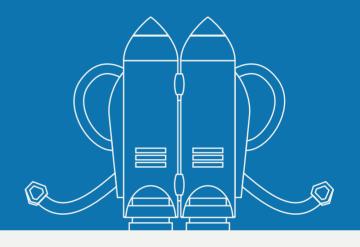
MX Consulting is in the process of implementing a Solvency II solution for a large UK based agent lender.

The application which can be white labelled for use via a clients intranet can manage the entire process of data collation from trading systems such as Global One, 4Sight or proprietary in-house systems, triparty agents and other third parties, handling the derivation and mapping of the data, reporting, audit and release of the QRT reports to insurance fund clients for onward provision to the regulator.



Adrian Morris Head of consulting MX Consulting

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Jonathan Morris



Facing forward

As Data Explorers celebrates its 10th anniversary, SLT speaks to the company's COO about how the market has developed

BEN WILKIE REPORTS

SLT: 2012 marks Data Explorers' 10th deliver more data as people are doing more with more consultative way, with APIs and flexible anniversary. How has the requirement for your services developed?

Morris: We started as a performance benchprove that my performance is on a par with or better than the rest of the market?

We now have customers that span the entire securities lending business - from beneficial owners, through to agent lenders, prime brokers and all the way through to the buy side, particularly hedge funds.

We have moved from data aggregation through to analytical software and then to benchmark rates. Of course we can only do this because we have the global reach, we are only as good as our customers providing us with the data.

as a software and data company has been to with our data. We're now working in a much ments of the wider market.

securities lending. We've been heavily focused software so that clients can extract the data they on innovation, always working on what's new in need rather than us sending it down to them. the market, and we have been very fortunate to be in the right place at the right time.

marking service - how can I as an agent lender SLT: Did the financial crisis lead to an increased demand for the type of information you can provide?

Morris: There has been lots of movement in the market, some core structures have changed and of course some banks have disappeared. For us, we've seen a trebling of product usage since 2008, with particular growth in the US and Asia.

One of the challenges has been that short selling and securities lending can do well in any market, whether it is rising or falling - the worst situation for our industry is a market that is completely static.

SLT: How has the crisis changed the type of information you provide and the way it is used?

Morris: It's all about an acceptable balance for risk-adjusted returns.

The crisis forced everyone to get better at understanding how to bring in the factors needed to calculate returns and especially adjusting for risk. This meant clients gave us more data and we can do more with it for them.

The downturn has accelerated the investment that banks and hedge funds have had to make in terms of the speed and dynamics of the securities finance market. Everyone benefits from more transparency. The speed at which trans-The big challenge over the last 10 years for us A lot of our clients want to commingle their data parency increases depends on the require-

Jonathan Morris

SLT: How much has the changing I don't think everyone will move to mobile comregulatory regime affected you and vour clients?

Morris: We've worked with regulators and with industry groups such as PASLA and ISLA to provide data to help them with their lobbying activities. The data provides greater transparency and helps their educational efforts in explaining the important role played by securities lending in the broader financial markets.

SLT: How much have the products changed?

Morris: Substantially. Initally there was an evolution from static monthly reports to our browser based products, such as Performance Explorer. In the last couple of years we have made significant strides with the creation of our Excel Add-In, which is now in its seventh iteration, as well as offering clients flexible delivery options over third party market data platforms, Datafeeds and our API offering.

The market has fragmented - partly that's down to new technology, but it's also about individuals within our clients being expected to do more.

The key is workflow integration, something that started a few years ago but has moved rapidly. This means integrating with different platforms we've partnered with the likes of Bloomberg and Thomson Reuters - because users only have a certain amount of screen real estate. So if I'm in the securities lending industry and I'm using Bloomberg, I want to see Data Explorers data there. The second strand is that people are using Excel sheets very heavily so we have moved a lot of data on to there.

As the last year progressed, we've seen a growing interest in APIs. People want flexible, fast and low cost deployment of a specific solution for their bank's or hedge fund's strategy.

As the market becomes more fragmented, API technology becomes king - you can let the client tough to do. SLT extract what he wants without the process being too technical. The client can say he wants a chart with these three data points, real time updates, his own logo and colours etc, and this can be set up in 10 minutes. Our API allows clients to personalise their requirements as much as they want.

SLT: How about the tools your customers are using? Are mobile communication devices the way forward?

Morris: Our iPhone app is very popular and it's now driving interest in other mobile technologies, such as the iPad. On the iPhone, you can our news pieces and videos as well as securities lending data at stock, sector and regional level.

munication this year, but it has certainly come of age. And it coincided with the ability of people to download video to their devices. The multi channel delivery programme is going to be big.

SLT: How about social media? How important could that be?

Morris: There are two aspects. Firstly, for the marketeers developing a new strategy to connect with their customers.

Secondly, being able to discover sentiment on the social media side that correlates with the data we have. That would be helpful to the industry, but it's something that needs more research and development.

The whole environment has changed. It used to be that people would come in to work, do their work, then go home and go on Facebook. But now it's all blurring. Many people, particularly younger people, don't consider these social networks as new or different, or simply toys; they're part of life. And it's going to get more blurred in the future, and we ignore it at our own risk.

SLT: What's next on the horizon for **Data Explorers?**

Morris: We'll continue to give clients what they need, when they need it. We're constantly building new ways of receiving and aggregating data and we're looking at ways of delivering it faster.

There are still areas of the industry where more data is going to be increasingly important, such as Asia.

As always our main aim is to improve our accuracy - securities finance is a big, complicated series of actions and we're always striving to improve the completeness of our data for rates, availability, sentiment and risk. It's easy to say,



Jonathan Morris
COO
Data Explorers

The key is workflow integration. something that started a few years ago but has moved rapidly. This means integrating with different platforms - we've partnered with the likes of Bloomberg and Thomson Reuters

Technology classifications map

Securities Lending Times takes a look at the global technology market to help you better understand how the land lies

Industry Specific Consultancy & IT Solutions	Trad Total Return Swaps and CFDs	e booking / ma Agent Lender	nagement syst Principal	e <i>ms</i> Repo
MX Consulting	4Sight	4Sight	4Sight	4Sight
Anetics	SunGard Apex	WorldLend	SunGard Apex	Anvil
DataExplorers	Calypso	SunGard Finace	Calypso	SunGard Apex
Headstrong	SunGard Finace	SunGard Global One	Stonewain	Calypso
Rule Financial	SunGard Front Arena	Stonewain	SunGard Loanet	SunGard Finace
Trading Apps	Misys Sophis	Anetics	Anetics	HelixREPO
Dedication Group		TullipTree OnlineStock- Loan	SunGard Finace	SunGard Martini
SunGard			TullipTree OnlineStock- Loan	QRP Repo
TullipTree			Anvil	BrokerTec
			Misys Sophis	FinancePro
				TOMS
				SunGard Global One
				BondLend

Technology Map





Around the table

Tom Whittle, managing partner at EquityLinked, speaks with leading industry practitioners about how to select or build a market leading platform and what the key requirements are to gain that competitive advantage in a tough financial environment

MARKET INSIGHT

Working in the business of delivering expertise in derivatives, financing and prime I would question the accuracy of the Technology Classifications Map. There are countless examples in the industry of overselling, projects that fail to deliver the expected ROI or indeed fail all together. It's very common for a product to be chosen on the basis of front office functionality but with limited support for back office integration. Often the underlying reason why existing systems need enhancing is overlooked as stakeholders are dazzled by the bright lights of the sales process.

We are very close to the project landscape in securities and synthetic financing, ranging from institutions starting new businesses to working with the top global players. Our objective with this article is to collate opinion from industry experts on how to select or build a market leading IT platform. We hope that this will provide salient advice and contribute to a successful project plan or highlight areas for improvement that could take your systems to the next level.

It's fair to say that the top providers derive their competitive advantage from building proprietary

technology components. Off-the-shelf systems will provide the building blocks to success but cannot meet all of the requirements of a world-class business. Within this article we speak to Deutsche Bank, who were recently ranked number one for prime finance technology.

Looking at synthetic financing and the technology challenges in this area we spoke with David Watters. David was instrumental in shaping the design of the Morgan Stanley equity swaps IT platform, regarded by most as the market leader. David went on to be responsible for

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the swap technology programme at UBS. He understands the international nuances, evolution of the area and the impact this has had on technology and regulation.

David, what are the key considerations when designing and selecting the right swaps platform?

You need to make sure you have a clear vision of what you want to achieve and where you want to position yourself as a business. What would be the ideal target operating model design? What will be the functional and system boundaries? Which in-house systems or services does your institution want to reuse or leverage? From where will you obtain reference data? Do you have all the fundamental components for capturing, valuing, confirming and settling the trades?

To answer the first of these, I would look at any existing business process from front to back and identify any restrictions it imposes on the business, bottlenecks or manual steps that can be designed out. It (almost) goes without saying that thorough consideration should be given to the removal of time consuming or error prone manual processes even if automation appears dramatically expensive short-term. At the very least, these should be managed on an exception only basis.

There are countless areas to review but here are a few that are key:

- Thought should be given to the real-time versus batch nature of the system. Some parts of the system, without question should react in a real-time nature (eg, TO adjustments) whilst others may be better handled in a batch or even manual manner (such as certain back-dated adjustments or feeds to a margin system).
- Will the system have to handle global business with clients across multiple regions, regulatory bodies and time zones?
- Upcoming changes in the regulatory environment (eg, Dodd-Frank) or market conventions, which will influence your business, should be taken in to account as early as possible. If you are buying in a 3rd-party solution, does the vendor have the resources to keep pace with ever evolving demands of the regulators? If you build in-house, what needs to be kept modular for future proofing?
- For scalability, performance, resilience, reusability, maintenance and all round good engineering practice and regardless of its initial size, the system should adhere to modern enterprise application architecture principles. It should be based around multiple isolated services that collectively provide the overall required business functionality - a so called Service Oriented Architecture (SOA).

And what about looking at specifics plex – is the calculation engine. Closely aligned with that is the underlying data model and da-

Attention should be paid to the universe of instruments that will be traded synthetically – this is no longer restricted to equities and indexes, and often includes futures, bonds, commodities, etc. This will have an impact on various components of the system (trade capture, pricing, ref data, risk management) and the implications should be considered at an early stage. At the least, this will involve more sophisticated client reporting (to include contract size, term. date, clean and dirty prices - where meaningful) but could introduce significant changes throughout the platform, depending on individual circumstances.

Think about how the system will interact with other business areas, such as prime brokerage or stock borrow/loan. Integration here could reduce manual intervention, help provide consistent pricing to clients and help avoid holding loss making positions (eg, as short spreads move).

As with any other product area, a swap platform should be well integrated with other strategic systems: risk, margin, confirms, settlement, general ledger, MIS, etc. However, due to the nature of the product, achieving this integration should not be underestimated. Amongst other idiosyncrasies of swaps, because the underlying composition can change, so can the fundamental economics, which can reveal issues during integration projects.

An increasingly popular feature is to provide clients with ownership of their own data and exceptions inside your platform, including the ability to introspect their own trades. This can be provided via a client portal or more innovative solutions such as tablet computing (ie, iPad) applications.

Another technical aspect to consider in today's world of high volume trading is the amount of data that is being transferred to and from any databases. In my experience, this frequently makes up over 50 per cent of the time taken to perform recalculations. To counter this, prudent use of caching is essential, as is the ability to be able to archive and un-archive historic data.

David, we have spoken at length about this in the past, and I do not believe that there is an "off the shelf" swaps platform that would support a high-volume and diverse business. In your opinion what is the minimum functionality that would be required to be effective in the market?

Arguably the core of the system – and from a technical standpoint, probably the most com- $\, \bullet \,$

plex – is the calculation engine. Closely aligned with that is the underlying data model and database on which the system hangs. Both can restrict or enable business growth by the quality of their design. Further discussion of those areas is largely beyond this article, but below are some other essential functional components which need to be thoughtfully spec'd out (I touch upon the performance of the two major components later):

- · client ISDA documentation storage
- · client preferences and defaults
- swap (shell) booking
- schedule generation
- trade/adjustment capture
- automated and manual trade allocation including its being driven by the client
- security reference information (ticker, currency, exchange, etc)
- security prices, FX and interest rates capture
- cashflow calculation engine
- client reporting
- corporate action capture and work-flow
- custom basket / index management including application of div points
- · data and role segregation
- life-cycle management including the management of back-to-back trades across books or legal entities
- · exception management and workflow

David, what type of functionality can really make a swaps platform stand out, both from an operational perspective and for the client base?

Once you have a functional swap system spec'd out that covers the fundamentals, it's time to look into the more specific aims. A lot of this would be driven by your sales team and by analysing the requirements of specific "difficult" clients and demanding markets that you wish to target. As mentioned previously, it is desirable to be able to trade as many underlying security types as possible and to give clients ownership of "their" data - be that downloading reporting extracts for their own use (eg, reconciliation) or real-time life-cycle transparency, where appropriate, on to status of their swaps and underlying trade activity. This can even extend to raising exceptions directly to the client to relieve operational burden. Some other items are listed below:

- full optionality around the application of all corporate events, mandatory and discretionary (including handling of the vagaries of Asian market)
- payment deferral methods (settle all realised cash at next reset, etc.)
- pricing context functionality (Bloomberg v Reuters, opening price v closing price; WMCo fx rates)
- ability to apply multiple interest rates as required (long notional v short notional, across all or part of the notional, debit v credit cash balances)
 - fractional share quantities and variable

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precision on stock pricing

- FX capabilities (different instrument, swap, valuation currencies; quanto vs. non-quanto style; non-deliverable currency trades where you may want to provide daily valuations in the non-deliverable currency, but settlement in another)
- Tax rates (for the application of corporate actions in various jurisdictions, but also for such things as China Withholding regulation)
- Predictive dividend-point calculations for index trades or custom baskets
- · Pay-to-Hold functionality

David, synthetics has become a very high-volume business: where would you expect performance bottlenecks and how would you factor this in to design decisions or vendor system analysis?

You would need to have an idea of short, medium and long-term volume expectations. These metrics should extend to as many dimensions as possible not just "number of open swaps", but highest volume of trades per day, longest term of a swap, largest number of positions simultaneously open in a swap, most allocations per client/swap, etc. You should look at typical and worse case scenarios, and understand the likelihood of the latter. These should be benchmarked on the new system so that any limitations are understood and can be both factored in to any client discussions as well as being addressed during design/selection.

- among other things - client reporting. Long dated swaps with frequent trade activity, many underlying securities, a high frequency of corporate actions and frequent resets should be factored into the design and benchmarking of both these components to ensure suitable system performance.

The benchmarking and performance should also extend to the output data feeds from the swap system: how long do they take and how much data is generated; as well as considering the processing time required in downstream systems. Systems downstream of the swaps platform need to be able to consume the required data in sufficient granularity, and at a fast enough rate, under the extreme scenarios. Whenever possible, it is preferable to build one consolidated feed suitable for all consumers, rather than supporting multiple customised feeds, all slight variants on the same underlying data. For example, the same feed of positional information should be suitable for multiple consumers (in an ideal situation, all consumers). Point-to-point feeds should be avoided.

This is a vast and technically complex topic and David has covered the crucial points of the swaps flow environment and made some excellent suggestions on how to differentiate a business through technology. This advice would be a great catalyst to design and implement the right solution for a leading synthetics business. We have not touched upon the full spectrum of Delta One products and the joint venture businesses that often sit outside of this area but will do in a future article.



John, what client functionality is important to build into a state of the art SBL system?

My view, based on my own experiences, on feedback from business users and quotes from leading market participants, is that a successful stock loan platform needs to offer significantly more than just the ability to support the stock loan trade life-cycle.

Obviously, there are many aspects that will need to be taken into account when reviewing solutions; these include items such as new financing trade strategies (eg the user of Evergreen trades), regulatory reporting (eg, agent lender disclosure), consolidated inventory management, collateral optimisation, return on capital, ease of use etc.

However, demands from the business community seem to be primarily focused on improving STP and inventory management through the automation/consolidation of processes and the integration with service providers, both internally and externally. Many firms today are looking to maximise their STP rates for their general collateral business whilst reducing costs, mitigating risk and providing transparency. This is to meet the ever increasing needs of the regulatory community and solutions need to be able to support these demands. Inventory management is a key requirement with businesses needing to know what securities they have available on their books, which positions are allocated and the returns they are achieving.



You should look at typical and worse case scenarios, and understand the likelihood of the latter

David Watters

Another significant discussion at this stage is that of how the system should behave when back-dated changes are made, when and how those changes propagate throughout the swap system, and on downstream. Un-checked expectations in this area can often lead to performance issues. All interested parties should agree the behaviour and performance of the system under these usecases. Once again, benchmarking scenarios should be employed to prove the required system performance is met, and if not, any limitations understood and used to influence future business/technology decisions.

As mentioned earlier, and related to the discussion of backdated changes and performance is the design of the engine and data model. The output of the calculation engine comprises all historic and future cash flows, as well as the intermediate calculated data required to drive

Of course the core equity swaps business cannot operate in isolation and as David alluded to earlier, a solid partnership with stock borrow loan is key. Moving on, we speak to John Speight, a SME with a wealth of knowledge of SBL, repo, and collateral management. John has experience of European, US and APAC markets from front to back.

John, how are stock borrow loan systems evolving to provide better business services?

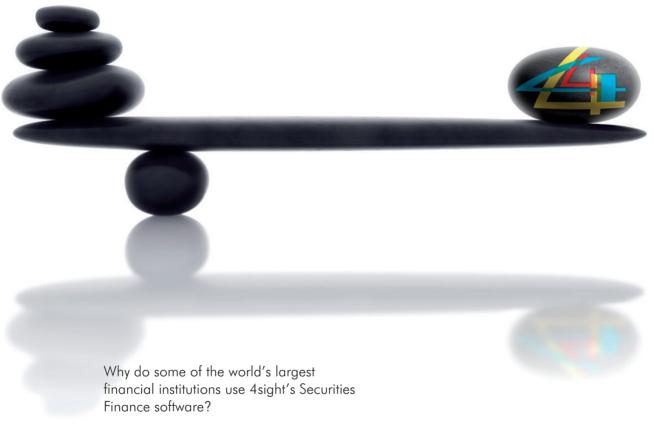
Most of the key building blocks required for supporting stock borrow loan businesses are available in current solutions implemented at major institutions. However, I believe that the major challenge facing organisations is the integration of firm's stock loan systems with cross-product enterprise initiatives to enhance inventory man-

John, can software vendors provide solutions that are complete enough in this market?

I do not believe a single vendor can provide a one-stop solution for the major institutions. Many of the services used by firms are provided by external parties such as Equilend and Sun-Gard (eg, autoborrow, agent lender disclosure). My considered opinion is that it would not be feasible, or make sense for vendors to develop their own complete solutions due to (a) the cost of entry and (b) the impact on their client base to utilise them.

As such, the objective of vendors and service providers should be to provide standardised interfaces to facilitate integration.

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John, in your opinion, what is the impact of automation on stock borrow loan systems?

Automation within the stock lending landscape allows the trading desks and operational areas to handle high volume, low margin "bread & butter" business with minimal resources thereby enabling highly skilled practitioners to concentrate on value-add services for clients and high return business related to specials, illiquid securities & arbitrage opportunities.

This can be achieved through the identification and subsequent automation of standard, repeatable processes, examples include:

- Generation of lending trades to cover shorts using house long positions and known availability.
- Reduction of costs by returning expensive open positions and proposing new bookings using fee information and availability.
- Identification of counterparty exposure and auto close-out when limits are reached.
- Generation and management of wash trade activity between legal entities and trading accounts.

John, for SBL how should external service providers be brought into the workflow and design?

Firms will also be looking to utilise services provided by third parties such as EquiLend and Pirum Systems to streamline their end-to-end processing for their general collateral business. The key objective here is a move towards an exception based business process where firms only need to concentrate on the issues.

As such, the integration between a firm's stock lending platforms and the services provided by third parties will be a key differentiator when reviewing solutions. Integration facilitates the automation of many of the manual processes associated with securities lending transactions, resulting in their ability to handle significant increases in volumes. The reference provided by Deutsche Bank, Global Prime Finance EquiLend Deutsche Case Study backs this view:

"EquiLend is a key factor behind the success and operational efficiency of our securities lending platform. The volume of business passing through our books requires a high degree of automation and robust processes. EquiLend is critical to this."

Integration with contract compare and billing services demonstrates how a time consuming task can be automated, resulting in improved operational efficiency, growth and cost savings (i.e. due to the reduction in P&L write-offs).

Activities such as auto-borrow, automated returns, mark open contract comparisons, manu-



factured dividend reconciliations and automated billing comparison are further examples of services available that firms are using, or are looking to utilise, as part of their strategy to reduce operational overheads, grow their capacity and reduce risk.

John, which are the most important data sources and how well do internal systems serve SBL systems?

To achieve the objectives of the stock borrow loan business, solutions must be able to take data feeds from numerous sources such as security static data, corporate action data, rating, calendars, counterparty data and valuation pricing.

It may seem old news, but accurate consistent static data distributed on a timely basis to each system in the chain is key for achieving high rates of STP, automation of claims processing, margin calculations, regulatory reporting etc.

Another point to note, when considering market data is that it is sourced once at a defined time and distributed across the enterprise. This should be facilitated through a centralised market data strategy based on a vendor solution or internal build that provides a golden copy where data is collated, scrubbed and verified.

often forgotten consideration is the licensing implications of using supplied data. A good example of this is CUSIP data: even though it may be supplied by a vendor such as Bloomberg via their data licence service, a licence is still required from S&P in order to use the data.

John, what are other key areas where internal integration can be leveraged?

There are numerous areas where integration can be leveraged to provide an efficient stock borrow loan solution. Good examples demonstrating this are inventory management, locates and triparty.

The ability to pull together real-time inventory data from disparate sources, both internally and externally and present this clearly enables firms to manage their business effectively. Integration is critical in enabling information to be consolidated, thereby allowing the business to know what they have & how it is being allocated. Integrated locates enable desks to efficiently manage the daily shorting demands of their clients. With a number of short selling restrictions in place, the need to ensure securities can be located is a key requirement for clients and is an important service provided by the securities Lastly, when looking at static data sources, an financing desk. To enable this, the desk needs

ExpertViews



to know that they can source a security when required. Therefore locates needs to be able to determine whether a given security is easy to borrow by analysing criteria such as lender availability, market data, securities lending analytic data tracking short selling and institutional fund activity etc.

Following on from David's comments on providing self-service capabilities, solutions should be looking to push integrated offerings such as locates to their clients.

Another differentiator for firms will be the integration with triparty agents for collateral management activities. Many firms choose to take advantage of triparty collateral management services from agent banks, thereby delegating their day to day responsibilities around collateralisation to the chosen agent(s). The agent performs tasks such as the selection and execution of collateral transfers and the daily checking of exposure through the mark-to-market of the collateral.

Facilitating this is SWIFT, which has introduced a triparty collateral management solution. This provides a standard protocol for agents and counterparties to communicate using the ISO 15022 securities standard with the objective of assisting parties in reducing costs, and risks (counterparty and operational), whilst also

meeting the increasing regulatory overheads through improved transparency and reporting. The service enables:

- Borrowers and lenders to automate exposure notifications to agents.
- Agents to supply information on matching status and statements providing details on collateral and exposure.

ment between disparate firms supplying the service as firms can look to build a single common interface that can cater for all instead of discrete peer to peer feeds.

My view is that the software vendors providing stock loan platforms should be looking at how easily they can integrate their platforms with the disparate services available in the market place. I believe that there is significant room for improvement when comparing the current state to other financial products, such as cash equity. These have a number of widely adopted standards, both from a format and delivery perspective, such as FIX that allow significantly improved integration between disparate solutions thereby facilitating automation and integration.

Until such industry wide standards are adopted, vendors and firms should look to leverage best practises in the market place, for example the adoption of industry standard messaging protocols such as ISO 15022/20022 wherever feasible, in conjunction with the use of a service oriented architecture. Doing this will give them competitive advantage as it will enable their offering to be easily integrated within a firm's infrastructure, reducing time to market, risk and cost of implementation.

How does geography or region affect system operation or design?

When looking at what constitutes a solid stock loan solution it is necessary to understand the geographical variations on the underlying trading strategy and the respective regulatory needs.

The securities lending business within international markets is predominantly fee based and in situations where the lending is against cash the firms tend to use cash pools whereas the US domestic business will usually trade on a rebate basis. US stock loan activity is also predominantly high volume flow business that settles through the DTCC.

With a number of short selling restrictions in place, the need to ensure securities can be located is a key requirement for clients

John Speight



John, how are industry standards influencing system design and are they universal enough?

The Triparty solution from SWIFT demonstrates how the adoption of an industry standard assists firms, software suppliers & service providers in delivering change efficiently, thereby reducing risks and time to market. Having a single set of standards based on a widely used messaging format reduces the need for bespoke develop-

Suppliers looking to cater for firms that require global coverage need to provide full life-cycle support of fee based, rebate based and cash pool stock loan activity with the ability to interface with respective depository systems, the firms' back-office solutions and/ or custodian services.

Stock borrow loan is a broad and diverse area and John has succinctly covered most of the main features. A key topic John raised was inventory management and with the evolution of

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As the new regulations are implemented, products will become more standardised. In order to maintain a competitive advantage we will need to differentiate our offerings

Andy West

real-time technology in this area it is a central consideration for any securities lending business. This is therefore a topic which we will cover in greater detail in a future article.

We have now discussed synthetic financing and securities lending separately, however one institution that combines both within their prime Finance business is Deutsche Bank. Amongst other awards in 2011, Deutsche scooped 1st place in the Global Custodian Survey for best Technology Platform. Andy West of Global Prime Finance at Deutsche Bank provided some insight on how they gained their position:

Andy, in your view, what role do you see IT playing in shaping the securities lending business specifically and the prime finance business in general?

As the global financial system self corrects, those organisations with technology resources tightly aligned with their business partners will be at a competitive advantage. It is technology's goal to provide systems with accurate, real-time information to desks that helps to integrate business lines such as synthetic equity, securities lending and financial risk management, and enable intra-day crossing of products through automated, high-availability systems. All the while, these systems must be highly scalable in order to accommodate the increasing volumes and volatility experienced in the market.

Andy, considering the downwards pressure on margins and competitive pressure on prices, how do you decide on buy versus build to manage the cost of ownership in IT?

While evaluating IT products, we take a holistic approach to our existing functionalities within the bank that already support different products and businesses. On the vendor side, the key consideration is the challenge of integrating the vendor solution with in house settlement, inventory management, pricing, risk and reporting platforms. Established standardised vendor products are leveraged on a case by case basis. We focus on leveraging existing internal solutions and platforms for effective cost of ownership, competitive advantage and consistency of information across the systems.

Andy, where do you see the securities lending IT trending, build or buy. Any other synergies within IT to provide integrated cost effective solutions?

As the new regulations are implemented, products will become more standardised. In order to maintain a competitive advantage we will need to differentiate our offerings, both on the business side and the IT side. Our ability to develop custom, in-house applications in close partnership with our industry leading prime finance business will give us that competitive advantage. By leveraging systems that are integrated from front-to-back, we're able to better serve our clients with consistent end-to-end solutions to meet their needs.

Having shared the ideas and comments of some of the most experienced practitioners in the industry, David, John and Andy have provided some thought provoking insight. Generating P&L is harder than ever in these turbulent times and having the right technology is fundamental to remaining competitive. To innovate faster than the street, a first class technology team is crucial. SLT

Securities Finance is a broad and complex area and we have touched upon some core topics to help garner a better understanding. If you would like to take advantage of our advisory or recruitment services and benefit from our network of industry experts, please contact us or sign up for our newsletter at www.equitylinked.co.uk



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Right of return

4Sight's sales director speaks to SLT about how swaps are affecting the securities lending market

BEN WILKIE REPORTS

SLT: Has 4sight seen significant physically, (via evergreens, extendables etc), growth in swaps as a synthetic securities lending and borrowing product?

Robert Palliser: Yes, many of our customers run integrated securities finance models across all asset classes and trading structures. As such. they can optimise their use of balance sheet, capital, and bottom line earnings by carefully choosing both the counterparts that they deal with (other brokers, agent and/or direct lenders) and also the trade structure they use (stock loan, repo, cash/OTC derivative and cash trade/ single stock futures).

As a result, they are increasingly looking for an integrated software product that allows them to undertake trade capture, maintenance and collateralisation across all physical and synthetic securities finance product types.

In addition, firms are seeking to differentiate their offerings through the ability to give their clients access to a given security via a variety of different trade structures.

There is also a need to optimise the collateralisation of any exposure across a wider range of products and this is achieved through making more effective use of idle long inventory, especially equities.

SLT: Is there growth in demand for a specific trade type?

Palliser: Growth is predominantly in two areas. Firstly as a direct alternative to a loan/ borrow transaction. Secondly, for the financing of long inventory.

The former has been long established as a means of providing market access in jurisdictions that traditionally did not allow for the standard securities lending and borrowing structure.

The latter is part of the continued development of the financing market place, where the more innovative firms are increasingly offering more bespoke trade structures and pricing. This is through a variety of means, including

or synthetically (via cash sale and Total/Price Return Swaps).

SLT: How are your clients seeking to integrate swap activity with their traditional securities lending and borrowing activity?

Palliser: There is a drive to integrate swap activity across all areas of trade capture, maintenance and collateralisation. So for example, firms want the ability to easily choose between physical and synthetic securities finance trade structures directly from the inventory/position monitor in their software solution. After checking security or basket of securities, they can then arrange for these to be "lent out" or "financed" by a chosen third party.

They are also looking to factor in the cash legs on any synthetic securities lending and borrowing activity into their cash ladders and asset & liability management activities. Most importantly, they are seeking to bring all synthetic exposure management into an integrated collateral management and optimisation programme across asset classes. This enables them to retain liquidity, optimise use of balance sheet/capital and minimise collateral costs.

SLT: How do you see the future landscape of standard and synthetic securities lending markets developing?

Palliser: If the market continues to develop at the pace we have seen over the recent past, it is possible that synthetic products could largely be interchangeable with standard borrowing and lending transactions in the future.

Market counterparts will therefore determine the optimal structure to use based upon the underlying trade rationale and subsequent capital/balance sheet usage.

There is currently a clear dichotomy between institutional lenders who lend securities and nothing more, and broker dealers who then on-lend or provide access synthetically to such securi-

ties. However, this is rapidly disappearing.

The evidence of this is the increased interest we are seeing across our entire client base in capturing or managing all of their synthetic and physical securities lending and borrowing activity within a single system (whether structured via an OTC derivative, listed future or equity performance note).

Finally, there will potentially be a migration or novation of physical securities lending and OTC derivative activity onto common centralised exchanges. This will also bring the differing securities finance structures even closer together.

SLT: How can technology sysin the system that they have access to a given tems support the use of synthetic finance?

Palliser: Firstly, the consolidation of any synthetic exposures with those derived from the more traditional securities lending and repo activities has undoubted benefits. This allows the "creation" of a single collateral pool and this is important in any effective collateral management and optimisation process.

Furthermore, the linking of physical and synthetic structures in a single system has significant advantages from a corporate action processing, liquidity and risk management perspective. It allows for a wider, portfolio approach to be undertaken. In addition, software solutions provide a level of automation that allows firms to handle the complexity of synthetic trade structures more easily and trade at higher volumes without placing an additional strain on the back office.

Finally, regardless of a given institution's role within the securities finance market, the ability to provide clients with a wider range of trade structures - each with guite different characteristics and benefits - should ensure more effective trade pricing and client retention.

This, along with the ability to communicate key information to customers in a clear and transparent manner, will help firms provide added value and differentiate themselves from their competitors. It will also provide greater transparency from a regulatory and management information reporting perspective. SLT



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Head in the cloud

Tullip Tree's Mike Frazier explains how the next generation of securities lending software has been created to support a changing market

BEN WILKIE REPORTS

SLT: How do you see the securities quality service to customers, rather now concentrate on higher priorities within the lending market at this time?

Mike Frazier: At this time, the market has consolidated, there is far more globalisation in the industry. An increased risk awareness has made investors wary and investments have declined. But with that said, we're hopeful that we have reached a stable level in the markets where we see an upward progression.

There has been a lot of uncertainty in the markets over the past couple of years, which means the industry will grow more slowly than it has in the past and will have fewer participants - it remains to be seen if those who have left will return.

I think the growth will follow improvements in the eurozone and other major markets. Eventually, rates will start to come back up, they can't stay where they are forever! Investors have been on the sidelines for so long. But fundamentally, things have changed.

the launch of the new business in the current climate?

Frazier: The current climate is forcing some companies to rethink and retool their business model and there is a need to meet the needs of those companies.

SLT: What can Tullip Tree bring to the securities lending market that will differentiate the firm from competitors?

Frazier: We have a competitive pricing advantage through the economies of scale from the cloud computing platform.

We provide multiple solutions with enhanced functionality that are suitable for each individual client. With our products, it doesn't matter if you're a big or small firm, you can still compete in this market. The service allows smaller firms to take advantage of the software available to larger firms, software that was previously at a price point unfavourable for them - they can now go out into the market and compete.

Lastly, the product offering is global in nature.

SLT: With all the technological changes in the industry, is it easier for a new operation to offer a high

than an established business that has to change many of its legacy systems and practices?

Frazier: This is a tough guestion and there's not a straightforward answer. Firms that have never really focused on their technology in the past are at a disadvantage, because you have to have the right technology to be competitive. So if your firm has consistently developed its technology, it will be able to compete at the same level as newer operations.

Budgeting for technology costs is difficult for any organisation, which is why we have decided to offer a modular system that can be phased in. And because it's cloud based, it reduces the costs. And when you take an established business that has legacy systems and practices. you can't change it overnight. But you can take a phased approach and move away from the legacy systems one by one.

SLT: What is the reasoning behind SLT: How about the regulatory side? How much is regulation changing the industry?

Frazier: The regulatory changes in the industry are requiring companies to adapt much guicker than in the past to meet the needs of the market ting experienced clients who are conditions. Technology is essential for companies to make the necessary changes needed in a timely manner on the regulatory side.

SLT: You're operating on a cloudbased platform. What advantages does this bring?

Frazier: First advantage is the up-front reducendured in the past from buying dedicated hardware and software.

Second advantage is the time to market; with our solutions it is simply creating a dedicated environment for your company in the cloud. For months developing? example, with the global inventory management module, we create the environment for the cli- Frazier: No question, we're experiencing unceran API. The client can then start using the module to document locates that will in turn produce reports for compliance and management.

Another advantage with cloud computing you are able to free up valuable IT resources from For us, we're going to concentrate on the securimaintaining hardware and software directly re-

company - an example of an indirect cost savings that impact the bottom line.

SLT: Are there any security concerns?

Frazier: Security is a key factor of ours, it always has been and it always will be. Over the last five years, though, security within cloud computing has developed so that it now simulates the security features that users have come accustomed to within their company's LANs and WANs.

SLT: Can you tell me a little about the securities lending team you have at Tullip Tree?

Frazier: We have a pretty talented group with vears of experience in the financial industry focusing on operations, execution, trading and technology. I've worked in the industry for over 12 years, on the operation and technology sides of the house.

SLT: Where do you expect your clients to come from? Are your team bringing them along from their previous roles, are you getting firms that haven't historically dabbled in securities lending, or are you getconfident about running their business relatively independently?

Frazier: This product can be used by both smaller and more established firms and we're marketing to all participants in the industry. However, it does depend on the overall market. If we had a sudden upturn in the market, firms might be less likely to change and keep with the status quo. tion in capital expenses that companies have But in the current climate, firms are looking for efficiency and looking to improve their processes for when the market does turn around.

SLT: How do you see the next 12-18

ent and connect their inventory feeds through tainty within the securities lending market. Low levels will remain until the euro markets sort themselves out and rates rebound. We'll see some companies looking to invest in the future by cutting costs and positioning themselves for growth.

ties lending industry and provide customers with lated to the product. These IT resources can alternative solutions to meet their needs. SLT

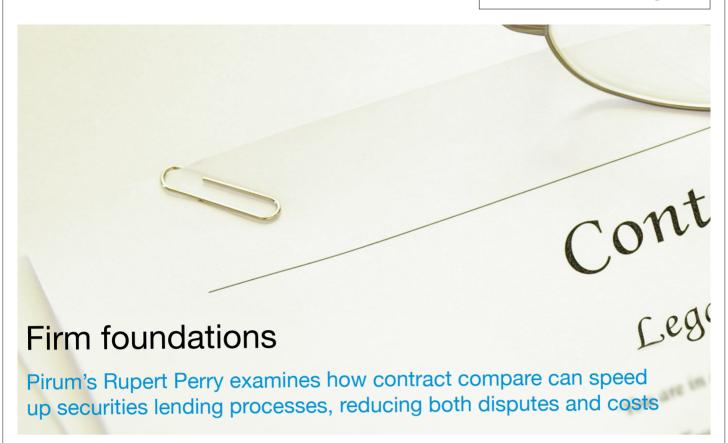
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Contract Compare



DATA ANALYSIS

Disputed corporate actions claim? Check contract compare. Can't agree collateral exposure? Check contract compare. Problems settling fees and rebates? Check contract compare. You want to do business with us? You need to be on contract compare.

Contract compare, the daily automated reconciliation of a market participant's open borrows, loans, repos and collateral positions with those of its counterparties, is the foundation of securities lending operations and acknowledged by both ISLA (International Securities Lending Association) and the RMA (Risk Management Association) as best practice. Ensuring that core books and records are accurate and complete is an important control and key both for operational efficiency and risk management. Market participants who actively use contract compare benefit daily from significant time savings in downstream processes and have greater accuracy in their internal reporting. It also provides much more clarity when investigating disputes when they arise. But an even bigger benefit is the help in avoiding losses due to errors and omissions. We have all heard the anecdotes about mismatched or unknown positions that have needed resolution at great expense.

Accurate data is the cornerstone for the smooth running of almost all post-trade operational processes. So when data integrity cannot be assured and positions have not been agreed with the counterparty, exceptions in the exposure, is investigated. Furthermore, internal P&L reporting will probably then be inaccurate and may require significant adjustments to be posted after month-end. Auto-

marks, returns, monthly billing, and dividend/coupon claims processes will arise requiring a lot of time to be spent in resolving differences. This is turn can lead to delays in bills and dividend claims being paid, marks and exposure being agreed and, in the many instances, significant amounts in write-offs leading to unexpected P&L variations.

There is no doubt that dedicating time to clearing contract compare breaks actually saves significant time and effort overall when taking a holistic view of all post trade processes. For example, the correct calculation of dividend/ coupon claims requires accurate positions and matching dividend rates. When positions and dividend rates have not been agreed with the counterparty, any undetected differences will delay the payment of claims and has the potential to cause significant funding costs to lenders who have a contractual requirement to pay dividends to beneficial owners on the dividend pay date. Often these breaks are much harder to resolve once a record date has passed or a claim has been issued, as the underlying error may have occurred some months earlier. When fee and rebate rates or positions are mismatched, the resulting billing difference at month end will often cause payment of the bill to be delayed (sometime by many months), whilst the source of each discrepancy is investigated. Furthermore, internal P&L reporting will probably then be inaccurate and may require significant ad-

marks, returns, monthly billing, and dividend/ mated contract compare is a very useful way of coupon claims processes will arise requiring a ensuring that your counterparty has accurate lot of time to be spent in resolving differences. books and records too.

Even when it turns out that your own records are accurate, you may need to expend significant operational effort proving the accuracy of your data if your counterparty thinks otherwise. Whilst it is possible to reconcile stock lending transactions by hand, it's a very time consuming process (unless there are only a handful of trades open) and it's uneconomic to do this on a daily basis. It also makes an operations team very sensitive to any increases in volume. As a consequence of infrequent reconciliation, breaks tend to be numerous and differences will often remain undetected for significant periods of time causing increased operational friction. Manual reconciliation also lacks the common workflow for communicating, clearing and assigning breaks that an automated comparison tool provides.

Fully automated contract compare is not only a lot faster, it's more reliable, more accurate and creates an exception driven process where difference that need to be investigated are highlighted. Automated reconciliations are more likely to get looked at than manual, spreadsheet based reconciliations. In today's risk averse world using automation is the only sensible choice.

The benefits of contract compare may be widely known and accepted but usage across the in-

Contract Compare



dustry is still not as high as it could be for a variety of reasons. Many market participants report that they can still have no automated compare in place for up to a third of their equity stock loan business. In the fixed income world the take up is significantly lower.

A common myth is that contract compare takes up too much time. Even for clients who use automated contract compare, when they get busy or staff turnover is high, contract compare is often one of the first operational processes to suffer. Whilst in the short term, a reconciliation not done today can always be picked up tomorrow, if work pressures remain over an extended period, tomorrow soon becomes next week, then next month and before long, breaks may not have been reviewed or investigated for several months and often only come to light when a loss has been realised. At the same time downstream processes are suffering and other operations teams are taking longer to resolve issues as the quality of the data deteriorates. This is where a holistic view needs to be taken of the post trade world. Not having enough time to look at contract compare necessitates a lot more time to be spent in dispute investigation and resolution in downstream functions. Or firms may be forced into accepting write-offs.

Another reason given for "not needing" contract compare is the comfort that can be gained from nostro/depot reconciliations and the monthly fee/rebate process.

A depot or nostro reconciliation with the cus- The age old adage of prevention is better than todian or agent is a useful control, but it does not provide much assurance about the accuracy of stock loan transactions in your books and records system. For example, trades may be booked with the wrong counterparty or with incorrect fee, rebate or dividend rates without causing a depot break. Similarly a billing reconciliation on its own cannot verify the accuracy and completeness of all positions because collateral (other than pool cash) does not appear continue to increase across the industry. SLT on the billing statement.

Also contractual elements of the trades that do not affect billing are not shown in nostro/depo reconciliations and cannot therefore be verified (eg, dividend rates and term dates). Another key issue with relying on billing reconciliations alone is that discrepancies will rarely be identified on a timely basis, as billing by its nature is always looking a month behind. The timeliness issue also has a tendency to make the breaks harder to fix, as traders can more readily recall what was agreed when a break is identified promptly than they do if it isn't brought to their attention for some weeks or months.

In summary, relying on nostro/depo will reconcile positions but not the financial terms of the trade. Similarly, using the billing process will not include checking key terms of the trade. These approaches are very reactive and deal with issues once they have happened. Contract compare helps to avert issues in downstream processes.

cure is as true today as it has always been.

Contract compare reduces operational risk and associated costs, increases efficiency, reduces volume sensitivity, reduces unexpected P&L variations and write-offs and improves client relationships. With these clear benefits and the continued focus on controls and risk management we can expect to see take up of contract compare



Pirum Systems Limited

Crossing borders

EquiLend's Brian Lamb speaks to SLT about how he sees the changing post trade landscape

BEN WILKIE REPORTS

As global firms in the securities borrowing and lending market continue to try to do more with fewer resources, there will continue to be an invigorated focus on the post trade environment. An interesting paradox that has occurred since the downturn has been a renewed focus on automation and creating scalable, efficient solutions. For instance, at Equilend we've seen many of our existing clients make greater use of our post trade services because they can realise a significant cost savings by doing so. In addition, on the fixed income side of market we have seen participants make use of the post trade services offered by BondLend. In many cases these services are not available from other providers and offer the market a golden opportunity to mitigate risk by embracing efficient automated solutions.

SLT: What is driving the change? Is it lower margins, more regulation, more demand for transparency, or a combination of all three?

Lamb: It's a combination of all three. First people are trying to save money because of narrower spreads and lower profitability. There has been more regulation in the last three years than perhaps any other time in recent history and there will always be a greater desire for increased transparency.

ing the industry?

Lamb: Regulation, in the last few years, has been a giant black hole in the universe that has been sucking up all resources from many firms that are trying to keep pace with the constantly changing regulatory landscape. The only constant has been change and it remains to be seen how the changes will ultimately shape the future of our industry. It would appear that there are already unintended negative consequences.

SLT: Can a more automated and transparent environment increase



the attractiveness of the industry to ferings from EquiLend. On the contrary, we offer beneficial owners who don't currently participate in securities lending?

Lamb: The list of beneficial owners that do not SLT: How much is regulation chang- participate in securities lending is much shorter than it was three or four years ago. Automation and a transparent environment - for all beneficial owners whether they participate or not - will always make it more appealing for them to lend.

> SLT: Are the quality and availability of post trade services available in all markets, or are there some jurisdictions that have some catching up to do?

Lamb: EquiLend offers the same post trade services with the same quality in all markets around the world. There are no jurisdictional specific of- Lamb: To EquiLend, of course! SLT

a standardised global solution for all post trade services. However the use and acceptance by market practitioners in some jurisdictions is greater than it is in other jurisdictions.

SLT: Are there any technological issues that have yet to be solved to create a better environment?

Lamb: Interoperability comes to mind. Our market is still fragmented with various service providers. There remains a significant opportunity for those providers to cooperate and interoperate at a higher level.

SLT: Where do you see the future of the post trade environment moving?

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Securities Lending Desks & Prime Brokers can upload proprietary and distributed inventory from other sources into the module so availability can be viewed by the traders. Inventory can be displayed by institutions: the user will see security

descriptions along with all other pertinent data that is entered into the database. This allows the user to quickly view inventory and allow them to call to enact a borrow transaction. Parameters give the user the ability to sort by regulatory requirements, rates etc.

Customer Short Sale Locates



Allow the correspondent or retail customer to request locates through a web interface using an API. The customer can enter a single locate or upload a batch of symbols, cusips, Sedols, Isins etc. The system returns a positive or negative response; or pends the item

for a desk specialist to review. The database can be set up to code securities as Not Lendable, Thresh Hold, Easy to Borrow or Premium Etc. Our application supports a predetermined Easy to Borrow list on a daily basis. Stock Record can be uploaded so that the system or individual can make sound decisions when approving shorts.

Query Report Writer



Create customized reports to meet the needs of your team, your company and your customers.

Pre Borrow Management & Billing Solution



Track requests and charge back borrow rate plus a fee along with the cost of capital through settlement date. Automated bills are distributed to the clients on a daily or monthly basis.

Customer Rebate Billing Management



Tracking the borrow versus settle short sale scenario allows teams to bill the user for the cost of negative borrows plus any additional surcharges. A daily or monthly bill to the customer generated by reviewing stock record positions especially fail to deliver positions.

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Securities Lending Times aims to discuss and communicate news and industry events that are in the shared interests of participants in the securities lending industry.

The newsletter will:

- Allow regulators to communicate to the industry the safe and efficient framework for securities lending.
- Explore the opening up of new markets for securities lending. Provide information about securities lending market developments. Cover the hottest news as it breaks.
- Enhance the public profile of the securities finance industry. Help industry associations to communicate with the market. Be the vehicle of choice for brand creation and promotion. Answer questions posed by the industry.

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- Keep the industry informed daily on all aspects of securities lending, including industry news, technology, regulation, people moves and mandate wins.
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Collateral Management



MARKET INSIGHT

The securities finance industry has not escaped the dramatic changes affecting the financial services market. While reduction of leverage in the system as a whole has resulted in reduced volumes for securities finance, there are some elements of the 'new world' model that are having a positive knock-on effect.

With increasingly restrictive collateral requirements and the tightness of liquidity, firms are increasingly turning to securities finance transactions to play a vital role in collateral management. This is resulting in an ongoing convergence between the disciplines of securities

the driver for change is the need to control collateral assets more effectively.

But the issue isn't that simple. There are multiple trends influencing the increasingly close ties between securities finance and collateral management. These include:

Liquidity management

Increased regulations (Dodd Frank and EMIR) model. Central clearing counterparties (CCPs), are putting huge pressure on balance sheets however, take very restricted forms of high qualand liquidity, with firms being required to retain ity collateral. This will put further pressure on

finance and collateral management. Much of a higher degree of capital in order to run their business. More than ever before, firms need to be able to actively manage and optimise their entire portfolio of collateral in order to maximise their utilisation of all available assets.

Central clearing in the OTC derivatives market

New regulations are turning most of the OTC derivatives marketplace into a centrally cleared

Collateral Management

liquidity and create a need to generate more of the CCP-eligible forms of collateral. The reduced ability to use owned long assets for margin will result in an increased need for asset transformation.

The demand for securities finance is coming from the treasury and balance sheet management areas of the business. which see it as a liquidity management tool

Risk and exposure

In the aftermath of the credit crisis, the risk stemming from counterparty exposure has zoomed to the top of the priority list for many firms. They want to see a single figure for their firm-wide risk, a single way for managing exposure, and a single process for handling collateral. Risk managers want more visibility into collateral across a broader range of products in one place; this impacts securities finance transactions as well as OTC and listed derivatives.

Cost control

Firms continue to focus on reducing costs and increasing efficiency. This includes consolidating systems and working with preferred partners.

So where does securities finance fit into all of this?

Securities finance has traditionally been used as a fails and short positions coverage mechanism, a hedging tool and a matched-booked revenue generation product. More and more, however, the demand for securities finance is coming from the treasury and balance sheet management areas of the business, which see it as a liquidity management tool. Firms are beginning to recognise that they can use stock

loan and repo transactions to convert equities and other products to cash or high quality fixed income collateral that can be posted to CCPs. If you can't do this type of asset transformation within the collateral management area, you're . relying on your treasury or securities lending department to do it for you. This can be inefficient and time consuming.

Moreover, firms require a cross asset view of the entire inventory so that they are able to support these trading capabilities and allow them to actively manage and optimise their collateral.

In addition to the demand for collateral transformation, firms want to gain a single view of their enterprise-wide exposure; combining securities finance collateral with that from other business areas

While full collateralisation has been a fundamental of securities lending and repo since While traditional collateral management operatheir inception, the OTC derivatives market, tional solutions may be extended to address which has a very similar requirement for bilateral collateral management, has only moved towards full collateralisation in recent times. It is still commonly held industry view that the OTC market is under-collateralised, and a recent Tabb group report estimated that close lateral management solution. to \$240 billion of extra collateral is needed. This, plus the increased appetite for use of non-cash collateral in the US, means that Conclusion the world of (non-cash) collateral management must encompass the needs of a broader Before, the collateral group was responsible range of products.

Further evidence of convergence between securities finance and collateral management is presented in the January 2011 report from TowerGroup, which pointed out that aligning securities lending activity with collateral management and repos can improve funding liquidity and optimise the balance sheet (Tower-Group, Observing the Slumbering Giant - How the Securities Lending Industry will Transform, January 2011).

So what does all of this mean from a technology perspective?

To facilitate this new model, there are a number of core functions that would be available within the ideal collateral management solution:

- There is a clear need for a single crossenterprise solution that is able to cater for the operational nuances of the collateralisation of multiple different product types (SBL, repo, bilateral OTC derivatives, CCP-managed OTC derivatives, listed derivatives).
- The solution must have a global, collateral inventory at its core. It is no longer acceptable to upload files overnight, as

proactive management of (collateral) assets requires real-time visibility of the entire pool of assets.

- A trading function is required to facilitate the "transformation" or "upgrade" of one asset to another. The ability to lend out equities versus cash or versus a government bond, either in the form of a stock loan or a repo, provides a secured transaction for asset transformation.
- An "optimisation" capability, which automatically calculates the most effective collateral to allocate to a given situation based on pre-defined and flexible rules, may be considered as a "nice to have" by some, but it can prove to be a highly cost effective tool for those who wish to leverage their available inventory to its maximum.

the cross product needs, they do not typically offer the capability to manage a real time global inventory and trade directly from it. The centralised inventory and trading functions have become a key element of a comprehensive col-

for the operational aspects of collateral management and typically "dish out" the collateral that they were given. They had to rely on someone else to get the collateral they needed. Now the collateral group is increasingly becoming responsible for getting the right sort of collateral, leveraging the less acceptable types of collateral, and converting it into usable collateral.

Paradigms are changing: the securities finance aspect of collateralisation is now being recognised as only a part of a bigger whole of effective enterprise collateral management. SLT



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Technology**Evolution**



Anna Reitman examines the ways technology firms are improving their solutions to take account of the new market environment

ANNA REITMAN REPORTS

Securities lending markets are tapping technologies to assuage tough scrutiny from regulators and investors.

Over the years, securities lending markets have been winning an argument about their role; the practice is an investment activity with unique idiosyncrasies. Still, there is a certain reticence in front office about allowing an activity that is not pure trading, explains Tim Smith, EVP of SunGard's Astec Analytics business. Moreover, the classification may mean that regulators will apply general rules across front office activities.

Part of the regulatory scrutiny facing the industry is a result of the market becoming associated with short selling and cash reinvestment in the wake of the Lehman crash and subsequent multi-billion dollar losses by AIG. Unfairly so, Smith notes.

"Securities lending is not short selling, it is not even short selling's ugly cousin. It is a proxy for short selling but is not the actual thing, simi- Over the past few decades, SunGard's technollarly, [regulators] talk about securities lending ogy that supports securities lending has gone and cash reinvestment in the same breath, but through several phases. First there was a bookthey too are different, the latter is an investment ing system - Loanet for US domestic transacmanagement activity because cash has come in...a lot of vitriol has been put on short sellers and reinvestment issues and the securities tially, the nuts and bolts of building transactions. lending market itself really should be kept out of Next, were qualitative overlay systems, such as that group," Smith says.

He adds that all mature markets should have fully functioning lending and had the business adhered to its original principles, its boundaries, it might have avoided a great deal of negative press while keeping its own identity as a sort of "middle office alternative".

Instead, securities lending is facing a very back office problem: overhauling legacy systems, adapting monitoring to real time and, consequently, potentially changing the very culture of the market.

tions and Apex for global - which monitored, performed mark to market calculations, essen-Astec Analytics, which gave the advantage of hindsight in evaluating the effectiveness of trading strategies. Now, systems are gearing up for foresight - do we need to borrow anything in the first place and if we do borrow it, what is the smartest way to do that?

Yet, there is still some hesitation about the consequences of real time information flow. For example, as soon as transactions are booked through Loanet, if clients have agreed, the information is transmitted to Astec Analytics' Lending Pit and then held up for 20 minutes. Smith

Technology **Evolution**

expects that this will get dialled down to zero, but at the same time acknowledges that realtime data may change the whole dynamic of the market place.

"If you are asking whether real time reporting is necessary, well, it is now. Because it can be done it has become a necessity, like emails over letters. It is too early to say whether it has changed the dynamics of the time during the day when things are done...but if [market participants] are getting data as it comes through, then that could lead to more efficiency, for example, people see what the rates are and immediately make decisions, they can adapt more quickly," says Smith.

Anyone engaging with the technological offerinds of this emerging reality will find a confusing marketplace. That, says Smith, is because participants have chosen many routes to market. "There is a range of products that will be made available because they all do subtly different things and beneficial owners and broker dealers have legacy systems that need to be attached... [the industry] is facing the issue - how long do you go on with something and make do until you suddenly realise something must get done? If you had a blank sheet of paper, how would the system get set up now?" Smith says.

At the same time, it is far more often the case that there are no blank sheets of paper. Integrating new systems usually requires coping with decade-old processes that are essential to operations. The general response to upgrading is: do only what must get done to make it work.

That means the vast majority of solutions are modular as opposed to end-to-end full lifecycle. The third choice, and one that should be avoided at all costs, says Smith, is to develop a solution yourself.

To this, some would respond with the old saying: "Don't ask the barber if you need a haircut". But sales pitches from a plethora of offerings across many vendors boast outsourcing models which allow investment managers to focus on their "core business". The argument is a valid one - are you a software designer or a securities lending practitioner?

Meanwhile, reporting requirements associated with risk and collateral management are likely to become far more burdensome than they have been in the past.

"The risk discussion is very important because that is something that has come up the agenda in securities lending very quickly on the back of the 2008 collateral issues. However, if you ask people in securities lending business about risk, they will have a completely different view over what they want to see in terms of reporting than their corporate risk departments," explains Smith.

Risk managers want to see the company as a whole, in real time and globally, but securities granularity of their own business. This has led to a new way of thinking about product development as well as the dawning recognition that posted collateral and margin posted against it. at some point, an overarching view of granular operations needs to join up at the top.

"We have just developed a US intraday product and we are expanding with our international intraday product soon...people in Hong Kong want to see the end of the US day...we are happy to build that...but if [a company is] serious about doing it on holistic basis, they have to work with a strategic partner...vou can't work with taking a bit from this company and a bit from this one and we will try to cope with it together...if the company's strategic goal is to have a view of the entire business on a global basis, cross business basis and with risk awareness, then it has to go with a fully integrated approach." Smith says.

Real time events

So exactly what kind of risk emerges inside a portfolio when market-moving events are announced such as rumours that Yahoo is set to acquire Rim or that Steve Jobs has passed away? And more importantly, how do the emerging patterns and trends in the market's reaction, sometimes seemingly unrelated, affect the organisation?

These answers are being found through complex event processing software solutions, which, at their core, process events happening across all layers of an organisation, identify the most meaningful ones and analyse their potential impact so that immediate action can be taken.

Though still in its early release stage, business analytics firm SAS is working with the investment arm of a major bank, which is running hundreds of millions of dollars through event stream processing technology. The technology allows the broker to perform real time management and reconciliation of outstanding positions for their clients, which it can then use for "slicing and dicing" through the organisation to get a much better idea of what the exposures are. That makes real time mark to market possible and the firm can decide if intraday margining is necessary or whether end of day margining is sufficient.

"The solution brings the real time risk component to the traditional securities lending space. Typically, lending positions and activities are booked throughout the day, this [real-time risk analysis component] allows users to identify levels of concentration in those positions or if to cash collateral reinvestment, margining there are liquidity issues around a particular and haircuts. stock. Bringing counterparty risk into the option, as to what and how your lending exposures are running and that means you have a much better view of the intraday exposures you are taking with those various counterparties," says Dale Stevens, head of Capital Markets UK for SAS.

lending market participants want to see the In addition, the technology creates a synthetic portfolio that represents the sensitivities of the actual underlying portfolio - stocks on loan, This synthetic portfolio can then be stress tested for potential impacts as a result of any stock lending transaction. Meanwhile, other real time information - credit risk from across trading systems and market risk - is being streamed and sent for risk monitoring through a global governance and control component.

> This kind of set up would likely have come in handy at AIG, when the insurance firm's exposures led to it ultimately posting \$20 billion in losses from its pre-crisis securities lending activities, according to Bloomberg figures. In large part, those potential losses went unrecognised before the fact because of inappropriate risk models.

> "If you are looking at something like AIG, there were so many interrelated systemic issues. The risk models being used were simply incorrect because they made too many assumptions about the creditworthiness of several organisations and the impact of certain instruments. [Avoiding this situation] is all about bringing together the ability to test the models and the assumptions around the models, plus the early warning you get from watching all of the key components of your exposures," says Stevens.

> Typically, a firm going long on a stock it is particularly bullish about will hedge by shorting elsewhere and as a result increase its exposures. Meanwhile, because of unintended market correlations, the company may have also entered into stock lending transactions overexposing it to a related sector. Oil and the numerous industries exposed to oil are prime examples of this potential circumstance. Too much exposure across too many related industries is like a tornado of risk, says Stevens.

> He explains that if the lender of the stock is scrutinising risk parameters that their clients are exposing themselves to, that lender can get a much better understanding of all of the impacts of the markets for VaR calculations, the collateral posted and the exposures being taken. In addition, the technology could be extended to include cash collateral reinvestment strategies, though currently, SAS is not involved with organisations allowing the direct reinvestment of collateral.

> In addition, the technology addresses regulator's concerns around practices related

can result in a much more informed judgment "It would support the concept of continuous margining, in that you are able to agree continuous monitoring of the exposures that your clients are taking. [The technology] would very much fit into the rules and regulations that are coming," Stevens notes. SLT



The shadow men

Securities lending will be under the spotlight in 2012, writes Will Duff Gordon, research director at Data Explorers

DATA ANALYSIS

The debate surrounding shadow banking is regulators that the securities lending market are on loan for more than 150 bps. We've heard gaining momentum amid regulators, politicians and journalists. It even has its own Wikipedia page and could soon be renamed "Spotlight Banking". Was Oscar Wilde right that it is better Asia to be talked about than not talked about?

collateral financing business as well as assess the main themes driving securities lending in Asia. We conclude by daring to make some predictions.

Spotlight Banking

Just when those on the inside are relieved to see a pickup in fixed income lending to make up for subdued hedge fund demand, those on the outside start throwing stones. To name just one of the many such pieces, the Financial Times' Gillian Tett wrote that the "web of shadow banking must be unraveled". The line being taken is that because large sums are involved and the fact that they take place in OTC markets there must be a cause for concern. The lack of transparency and the fact that all this repo and "interconnectedness" is little understood leads to fear, bringing back memories of the securitisation of mortgages and the like.

Clearly, a strong voice should counter that without insurance companies lending government bonds banks would find raising cash from central banks that much harder. It is a good thing that asset managers and corporate treasuries are lending collateralised cash into the overnight markets given that banks no longer want to do this. Much work needs to be done to convince

knows very well how to manage the risk reward in these transactions.

According to David O'Rear, Hong Kong Gen-We will discuss the implications for repo and eral Chamber of Commerce chief economist. Asia is the 'least worst place to be' and China's domestic consumption will overtake the US by 2015 thereby reducing Asia's reliance on Western growth.

> Hong Kong was likened to a broker at our HK Forum, taking commission on trade regardless of the global economy, so it can weather this storm. By contrast, China is still reliant on European and US growth.

> Milton Friedman was wrong: inflation is not everywhere. We have subdued consumer consumption leading to low inflation (with the UK being the exception). Low inflation makes economic growth harder and unless countries grow their GDP by three per cent or more they cannot reduce their deficits. Stagnation and indebtedness will prevail. But, China will soon have enough domestic demand to keep Asia going.

The LongShort Ratio for HK equities (see chart) shows the region is one of the few around the **The future** world with an increased appetite to short, with longs outnumbering shorts by just over six times. This relative scarcity of supply means beneficial owners can reap relatively high fees while demand to borrow remains strong. As the pie chart shows, specials accounts for 15 per cent of the 600 securities we track and over 65 per cent as China, to fully open up to short selling.

evidence into how crowded and expensive short selling is in Hong Kong, with one broker claiming that 30 funds rang up recently to borrow the same stock on one day.

ETFs in Asia

If there were leveraged ETF products, retail take up would be greater in Asia as we heard that Asian investors like to take risk and like volatility. As seen in Europe, the industry is held back by a lack of incentive for financial advisers to sell these products to their clients. 90 per cent of the AUM are contained in the top five most liquid Asian ETFs.

Asian Hedge Funds are not as hungry to borrow and short ETFs as their American peers due to the bespoke service they get from their prime brokers who create tailored swaps products in lieu. This product is in its infancy but SSGA, iShares, HSBC and others are off and running to build it up through educational seminars and discussion with regulators. Given their experience of how well it works in the US and the challenges being thrown at ETFs in Europe, we've heard they have the experience and skill to get it on its feet "within two years".

While Asia is a bright spot, global banks headquartered in the US or Europe are under great pressure to cut costs. Life is all about efficiency and cost savings in some senses. Yet it is important to remember that it takes time for new markets, such

Forward Look



We've heard that bankers coming to Asia from ally break out leading markets higher. US investhe west looking for easy pickings could be heading for a fall with one person at our Forum summing this up say saying "they will find that Asian markets are more complex to trade in, we work harder and you will be paid less." I wonder if that last part will be true for long!

Prospects for 2012

tling its cage, this inbuilt bullishness will eventu-

tors could start to ignore Europe and their stock markets could "decouple". This should lead to more securities lending volumes as funds seek to hedge their exposure to a rising market.

If 2011 was the year of regulatory "noise", 2012 could be the year of announcements and action. ESMA in Europe is due to report on its consultation process into short selling and the SEC is If the US stock market is like a caged lion, rat- due to pass judgment on securities lending and short selling transparency this year.

ETF flows in securities lending did not take off in 2011. If they do not in 2012 then it will still be a year closer to happening. The sheer proliferation of choice amongst instruments and asset inflows will eventually see more widespread retail adoption in Europe. Meanwhile, offering bespoke sector swaps may become more costly for banks.

The cost of short selling in Hong Kong must surely come down! This could be caused, not by an ease in the supply and demand dynamic, but in a further round of Chinese stimulus. SLT





Will Duff Gordon Research director **Jata Explorers**

TechnologyDirectory

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Company description

Dedication Group is an IT and project management consultancy specialising in systems implementations and high-risk, time-critical and complex project delivery.

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The MX team have a deep understanding of the securities finance market from years of working in the industry and can help you meet the challenges you face. MX consulting has successfully delivered solutions to clients involved in Agent Lending, Principal, Custodial Lending and Repo Programmes.

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Company description

Rule Financial is a leading independent provider of advisory, business consulting, IT and software services to the investment banking community, counting some of the world's foremost financial institutions amongst our clients.

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www.sungard.com/securitiesfinance

Company description

SunGard, a Fortune 500 company with annual revenue in excess of \$5 billion, serves more than 25,000 customers in more than 50 countries, including the world's 25 largest financial services companies.

SunGard Securities Finance Services offer a flexible business model that allows our customers to remain focused on their core competencies and lets SunGard concentrate on providing what it does best: Highly trusted implementation, integration, support and development services for the management and improvement of our customers securities finance technology and processes.

SunGard Securities Finance Services Team offers the following Services and Solutions:

- Implementation
- Integration
- Application & Business Migration
- · Training Services
- Product Upgrades
- · Reporting Suites
- Functional and Non-Functional Testing
- Dedicated Support including: Managed and Hosted Services
- Dedicated Development

Vendors

4SIGHT

FINANCIAL SOFTWARE

4sight Financial Software

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Judith McKelvey

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Company description

4sight Financial Software is an independent software solutions provider with sixteen years of experience. Our customer base includes a full spectrum of market participants from principal intermediaries, custodial lenders & agents, to direct lenders and global broker dealers.

Some of the world's largest financial institutions use our software to meet their business needs and we offer the reliability and experience of a company with a proven track record. We also provide project management, consultancy services and global support through our worldwide network of offices.

Our product range consists of:

- 4sight Securities Finance (4SF) a software solution for lending, borrowing, repo, swaps and collateral management across the equity and fixed income markets.
- 4sight Xpose software for enterprise wide collateral management and optimization.
 Xpose provides cross product collateral management for securities lending, repo, and derivatives in a single solution.

These solutions provide front-to-back office support and help our clients to:

- Boost revenues
- · Reduce costs
- · Increase trading volumes
- · Reduce manual effort
- Improve customer service
- Control risk

Anetic's

Anetics, LLC

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Company description

The team at Anetics have developed and host a suite of software utilities that automate the workflow associated with Securities Lending. With no investment in infrastructure or application development time, any of the functionality listed here can be deployed for your firm, on-demand.

- Collate all your known sources of supply and demand into one central utility enabling immediate lookup and cross-referencing of inputs from counterpart availability feeds, e-mail lists, in-house needs and excess available to lend.
- Track Locate Requests by customer and trading counterpart with full history, audit trail, and customer authorization to pre-borrow.
- Manage all your open contracts with capability for bulk rate-change, return, recall, refinancing, and counterpart credit/risk monitoring.
- Auto-Borrow and Auto-Loan using various common and open-standard bi-lateral interfaces.
- Rebate/fee allocation tools allows you to distribute stock borrow/loan cost and benefit to your customer - with special handling for collateral mismatch and micro-transactions.
- Link directly to your customer and trading counterparts with open-standard web-services and FIX messaging.

Please feel free to contact us with inquiries. Always a pleasure to arrange a demonstration. No cost or obligation if you wish to try an evaluation instance of any of our service offerings.

TechnologyDirectory



Stonewain Systems, Inc.

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Longying Gao

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www.stonewain.com

Company description

Stonewain Systems Inc. provides world class software and solutions for the securities finance industry. We believe that this market is ready for a comprehensive, fully integrated solution that combines a high level of industry specific functionality with leading edge technology and automation to deliver the greatest operational efficiencies to clients.

Our state of the art, next generation platform specializes in:

- · Securities finance trades
- Position management
- Risk management: regulatory & compliance
- Front, middle, and back office integration

The company was founded by professionals with extensive experience in the field of Securities lending finance and technology. With extensive domain knowledge and a pool of highly talented and experienced individuals, Stonewain Systems is poised to set a new standard of excellence in the securities lending industry.

Please feel free to contact us with any queries. We would be happy to provide further information and arrange a demonstration at your convenience.

SUNGARD®

SunGard

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Company description

SunGard a Fortune 500 company with annual revenue in excess of \$5 billion, serves more than 25,000 customers in more than 50 countries, including the world's 25 largest financial services companies.

SunGard's securities finance solutions help all types of securities finance market participants control and grow their business by improving the transparency, efficiency and connectivity of their operation. Covering everything from stock borrowing and lending and repo trading through to prime brokerage and collateral management, our solutions are used by more than 140 of the world's leading financial institutions, including the world's 10 largest banks.

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OnlineStockLoan[™]

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www.OnlineStockLoan.com

Company description

OnlineStockLoan™ introduces a unique way of helping our customers succeed in the global Securities Lending market place. Our experience led us to build state of the art Global Securities Lending solutions utilizing cloud technology. Our cloud based solutions allow you to focus on generating revenue and customer satisfaction while we deliver a securely accessible solution from anywhere in the world. Below are the available solutions through www.onlinestockloan.com.

- Global Inventory Management
- Pre Borrow Management & Billing Solution
- **Customer Short Sale Locates**
- Customer Rebate Billing Management
- Global Lend Application
- Query Report Writer
- **API Interfaces**

We offer an on-premise version of our solutions allowing you to maintain control of the hardware within your own IT infrastructure. The on-premise version can be used as is, or customized to attain your own branded corporate edge.

OnlineStockLoan™ is provided by Tullip Tree Advisors, a global finance and technology advisory firm. Our Tullip Tree services range from:

- Global Finance
- Global Securities Lending
- Vendor Management
- Software Development

For more information regarding advisory or consulting services go to www.TullipTree.com or contact us directly.

Post Trade



OUR INNOVATION. YOUR ADVANTAGE.

BondLend

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www.bondlend.com

Company description

BondLend is a securities finance technology platform created specifically to support the fixed income borrowing, lending and repo community. BondLend's Trading and Financing Services provide straight through processing automation for borrowing, lending and repo using a common standards-based protocol and infrastructure processing eliminating manual processes, freeing up valuable resources.

BondLend comparison services add efficiency and reduce the risk of potential collateral management errors. Comparison services are security type agnostic and support global usage for cash and non-cash records. BondLend's trading and post-trade services help drive down unit costs and increase efficiency. It allows firms to free up resources to expand their market presence, increase trading volumes, and reduce error rates all without additional cost.

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Company description

EquiLend is a leading provider of trading services for the securities finance industry.

EquiLend facilitates straight-through processing by using a common standards-based protocol and infrastructure, which automates formerly manual trading processes. Used by borrowers and lenders throughout the world, the EquiLend platform allows for greater efficiency and enables firms to scale their business globally.

Using EquiLend's complete end-to-end services, including pre- and post-trade, reduces the risk of potential errors. The platform eliminates the need to maintain costly point-to-point connections while allowing firms to drive down unit costs, allowing firms to expand business, move into different markets, increase trading volumes, all without additional spend. This makes the EquiLend platform a cost-efficient choice for all institutions, regardless of size.

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Company description

Pirum provides highly innovative, functional and reliable electronic services specialising in automating post-trade processes in the equity and fixed income securities finance markets globally. With a focus on service excellence, Pirum is invariably regarded as the users' service provider of choice.

Pirum's Classic Service delivers:

- Contract Compare
- Billing Compare
- Billing Delivery
- Daily Position Reporting
- Income Claims

Pirum's Real-time Service delivers new levels of automation and straight-through processing to the industry, streamlining manually intensive and time-critical processes throughout the day and covers the following:

- Marks Automation
- Exposure Reconciliation
- Automated Returns
- · Automated Payments
- Real-time contract compare and pending compare
- Automated Triparty RQV Processing
- CCP Gateway

TechnologyDirectory

Data Providers



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New York

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Company description

Data Explorers is the leading provider of securities lending data, tracking short selling and institutional flow across all global market sectors.

The company's analytics help clients to identify investment opportunities and manage risk. Content is sourced directly from market participants including prime brokers, custodians, asset managers and hedge funds. The database covers:

- · Over 3 million intraday transactions
- \$12 trillion of securities in the lending programs of over 20,000 institutional funds

The service is accessible through the major market data platforms including Bloomberg, Capital IQ, FactSet and Thomson Reuters.

Established in 2002, Data Explorers is an independent company based in New York, London and Hong Kong.

Recruitment

equitylinked

experts in derivatives, financing and prime

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Company description

Our network is global, and we can deliver leading industry professionals and consulting services across Europe, Asia and North America.

We set ourselves apart by combining experience of working in; trading, consulting, portfolio management and HR.

An in-depth understanding of your domain means if you're hiring we can help shape requirements, identify the targets and deliver unique, accurate and quality resources.

If you're considering a new challenge, we'll listen to what you want, reflect this in the plan and support you to achieve your goals.

Whether you're building your team or your career, our business has been grown on recommendation and it's our approach that sets us apart.

We'd like to demonstrate how we can offer you a better experience, so please talk to our team to find out how we can help.



Introducing the New Data Explorers iPhone App







Stock details at indiv security level Movers and risers at individual security level

Access essential data wherever you are

market news

The Data Explorers iPhone App is a fully featured market data and news application with market and sector overviews, single security tear sheets and customizable watchlists, along with daily news, videos and commentary about short selling and institutional fund activity. Download today at www.dataexplorers.com/iphone

Features:

- Expert daily insight for securities lending borrowing and short selling, including:
 - Updates throughout earnings season
 - Sector and regional overviews
 - Interviews with leading practitioners
 - Insight and reaction to regulatory changes
- Live data updated throughout the day from the Data Explorers API







SUNGARD SECURITIES FINANCE

SunGard – our trusted advisor for securities finance solutions

Knight relies on SunGard's securities finance solutions to manage its domestic and international securities lending and repo business through Knight Execution & Clearing Services LLC.

From trade initiation through to final return, SunGard provides a comprehensive suite of securities finance and collateral management solutions.

More than 150 customers in 150 countries trust SunGard to manage their securities finance operations.

Find out more. Visit www.sungard.com/securitiesfinance.

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