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IMPACT NOTE

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Sibos 2013: One Thousand and One Reflections

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INTRODUCTION

The Middle Eastern city of Dubai was the backdrop for this year's Sibos conference, which kicked off proceedings at the city's World Trade Centre on September 16, 2013. It represented the first time that Sibos has been held in the Middle East, and Dubai, a center of international trade flow, was selected as a suitable hub between East and West to discuss the continuing evolution of the global banking industry.

This year's SWIFT user conference featured many tailored sessions for attendees beyond the usual standards forum, corporate forum, and Innotribe sessions, and it included a reprise of last year's compliance forum. Given the location, the conference also featured a dedicated Africa and Middle East day, which included a session analyzing the role securities market infrastructures play in attracting foreign investment to local markets in Africa. Sibos also included, for the first time, a market infrastructures forum, reflecting the increased focus on regulatory change and the challenges of establishing and connecting to so many new market infrastructures.

This report rounds up the key discussion topics from the event and evaluates how some of these may fit into SWIFT's five-year strategic program.

SWIFT'S ROLE IN COMPLIANCE

Much like the last few years at Sibos, the discussions in Dubai had a heavy regulatory bent, reflecting the ongoing costs and challenges facing SWIFT's payments and securities clients as a result of regulatory compliance. During one particular session about regional perspectives on global regulation, panelists and audience members indicated that banks are actually being forced to turn away business because complying with regulations requires so much bandwidth. An audience poll suggests that many have turned away a lot of business (32%) or a small amount (62%) over the last 12 months because of these firms' increased concerns about risk and reputation resulting from regulatory requirements. Taking on a client or product that could entail extra levels of regulatory scrutiny or effort is therefore quite unattractive to most firms at the moment.

Furthermore, more than half of the audience (55%) strongly agrees that it is more challenging for smaller players, which have more limited resources than their larger peers, to keep up with the continually evolving regulations. These firms could therefore potentially be customers for some sort of shared service in areas such as financial crime compliance. To this end, there was an extension of last year's industry utilities theme, reflecting SWIFT's ambitions to establish itself as a neutral provider of industry-wide shared services in non-competitive areas. One such area, encompassing Know Your Customer (KYC), anti-money laundering (AML), and sanctions screening services, featured in the opening plenary keynote speeches of SWIFT CEO Gottfried Leibbrandt and chairman Yawar Shah. Both indicated that there is the potential for compliance services to grow at the same quick pace as securities traffic on the SWIFTNet network.

Aite Group expects that one of numerous hurdles ahead of the industry messaging network in establishing such a shared service will be dealing with the issue of liability. Regulatory compliance is an area not easily outsourced because individual financial institutions must ensure that the data they report to regulators and the wider market is correct. SWIFT will also need to tread carefully with regard to data privacy, especially when it comes to providing an aggregate view of activity for business intelligence purposes.

SWIFT has already gained some traction in the sanctions space—120 banks in 56 countries have already signed up for its sanctions screening service, which it launched in April 2012. The service monitors financial transactions for the names of suspect individuals on sanctions lists, and it flags the relevant transactions accordingly. SWIFT plans to develop a KYC registry that will enable banks to share data pertaining to questions typically asked of clients. This will augment, rather than replace, banks' in-house capabilities.

Shah admitted in his keynote speech that compliance is an area, like securities, in which SWIFT does not traditionally have a core competency and which has not previously been a focus of shared services. Getting the model right and keeping it within a relatively limited scope will therefore be essential to the future success of the endeavor. The utility model is also a tricky proposition to get right in a traditionally competitive financial services market—one sniff of competitive edge lost and plans can quickly go awry. Providing sufficient incentive and justification for firms to participate, including installing the necessary safeguards, is vital.

SWIFT CONNECTIVITY WITH THE ALLIANCE MESSAGING HUB

One of the key tenets of SWIFT's mission is providing a reliable, robust, and secure network for the exchange of financial messages. Highlighted at Sibos, the Alliance Messaging Hub (AMH) is the newest component of SWIFT's Alliance products that provide users access to SWIFTNet. AMH is a modular, multi-network, high-volume financial messaging hub currently used by 17 large financial institutions. Initially, the volume processed over AMH was mostly FileAct messages, as AMH was used for financial institutions to communicate with their large corporate customers. AMH also supports SEPA, funds and reporting, and FIN messages, though the volume of FIN messages between financial institutions is growing and will likely represent close to half of the volume eventually. All four message types share the same database.

AMH is an extremely flexible solution that can be configured and customized to the specific needs of the user. AMH can also be structured so that multiple instances perform the same work for a continuous processing service configuration. Load balancing and scalability are supported, as is disaster recovery, and AMH supports some clients that have a daily volume of 2 million messages. As a multi-company/multi-entity solution, AMH segregates data such that only the initiator can access and alter it. Work flow is built into AMH, including validation, routing, flow, transformation, and identification of duplicates.

Among the functions provided by AMH are the following:

- Global view of all messaging
- Ability to monitor and route traffic across networks
- Full support for SWIFT and local clearing networks
- Ability to render any financial transaction in any format
- AMH Orchestration Engine logs and displays all actions, providing significant visibility
- AMH Designer offers graphic work-flow construction, transformation, and reporting
- Effective in a multi-standards world, where interoperability and co-existence are a necessity
- Open and flexible architecture
- Enables a gradual rollout strategy

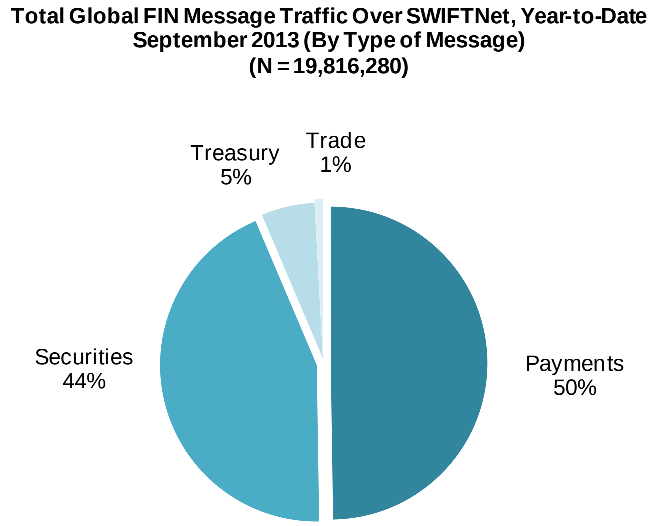
AMH's flexibility allows financial institutions to operate and maintain one rather than multiple systems. Along with AMH's ability to scale and integrate with financial institutions' existing infrastructure, this is expected to lower the total cost of the solution.

AMH is differentiated in the market by SWIFT's ownership, and it applies SWIFT's models and discipline around development, testing, and implementation. Aite Group believes that AMH still has competition in the market, but it certainly provides many positive capabilities that make it an attractive offering.

A NOTE ON SWIFT TRAFFIC

Examining the traffic for SWIFT's network, SWIFTNet, on a year-over-year basis indicates the industry network provider's focus and market penetration in its key market segments: payments, securities, treasury, and trade. With an average daily volume of 19.7 million messages as of mid-September 2013, traffic was 8% above September 2012 volume. The year-to-date average daily volume in mid-September 2013 stood at 19.9 million messages, representing 10% growth over September 2012 (Figure 1). SWIFT's FIN message traffic increased by 9% over the previous year in the payments market and by 11% over the previous year for the securities market, highlighting the continued importance of securities traffic for the messaging network. In terms of overall percentage of traffic, securities traffic increased by 0.7% over 2012, but payments traffic stayed the same, at 50%.

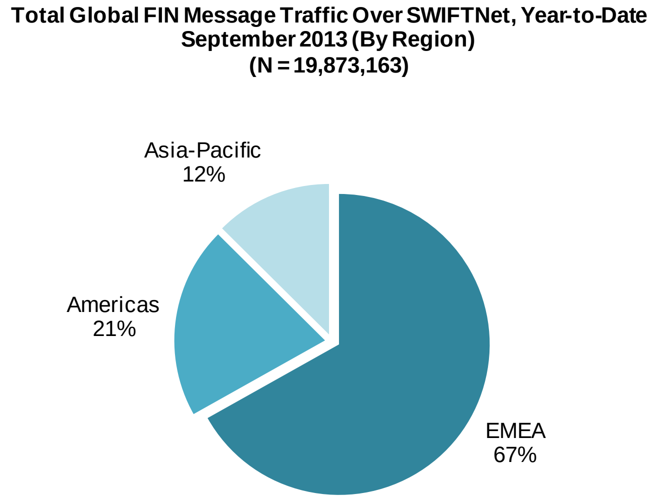
Figure 1: Breakdown of Total Global FIN Message Traffic Over SWIFTNet



Source: SWIFT

According to September 2013 SWIFT figures, June 28, 2013 was the global FIN peak day, with 22,356,069 messages. Figure 2 shows the regional breakdown of FIN message traffic over the SWIFT network as of mid-September 2013, indicating dominance of the Europe, Middle East, and Africa (EMEA) region in terms of overall message traffic.

Figure 2: Breakdown of Regional FIN Message Traffic Over SWIFTNet



Source: SWIFT

WHOLESALE BANKING EXPERIENCES

The one topic that permeated meetings and private talks during the banking-related segment of the Sibos conference was the need for innovation from the wholesale banking sector. Given the current economic climate, corporate clients—especially small to midsize enterprises (SMEs)—continue to require financial support and assistance. New entrants appear more receptive to such needs and flexible enough to pose a serious threat to traditional financial institutions (FIs). These new players offer their customers rich information and constant feedback through an intelligent use of data, a practice in which FIs are still in catch-up mode.

BANKS AND INNOVATION

Though banks openly say that they are subject to multiple factors of complexity, they must refrain from outsourcing complexity to their customers. This, in itself, can be considered an innovative approach that banks should adopt. For instance, they should not assure security by forcing customers to change their passwords more frequently or to adopt security tokens or similar devices. Banks are better off promoting partnerships for growth and aiming to simplify their operations as simplification leads to growth. As the CEO of a solution provider for core banking products said, quoting American computer scientist Alan Perlis, "simplicity does not precede complexity but follows it." Facets of bank complexity follow:

- Number and ambiguity of regulations (for instance, during one of the conference sessions a panelist cited research from JPMorgan Chase that estimates that the cost of compliance amounts to between US$400 million and US$600 million each year)
- Interpretation of data (or lack thereof) by banks and auditors
- Slow revenue flows as a result of the still-recovering market
- Changing customer behavior as customers are now more informed and connected
- Technology disruption (i.e., using technology to shape new strategies and not only to automate operations)

Simplicity includes reducing the burden on clients. Banks need to create better customer experience through three main drivers:

- Ensure quick time to market for new products
- Improve operational efficiency to become more flexible and resilient to change
- Facilitate easy customer onboarding

Innovation also means that banks must look at their back-office operations and supporting technology. Sibos focused proportionally less on front-end channels (e.g., mobile) than in the past, and banks are acknowledging that, pre-crisis, they seldom paid attention to their back-office infrastructure. Certainly IT budget was considerable for that portion of the business, but the main objective was to ensure compliance with and adaptation to regulatory mandates. The principal strategy was to stay more focused on the front office, which is where customer engagement begins. Banks are certainly engaged with their customers, but corporate clients are asking for more than basic service, and new entrants (e.g., PayPal) are providing a customer experience rich with information, visibility, and personalized reporting. The data banks need to provide such reporting is resident in a given bank's back office, but it is often kept in siloed databases that do not allow a single view of the customer.

BIG DATA AND PAYMENTS

Banks at Sibos frequently asked questions about what data is really important, or what information corporate clients really want extracted from data flows. General agreement converged that payments transactions and remittances can be good starting points as long as the data is clean and time-stamped. Banks can provide valuable information to enterprise customers by extracting data that can help estimate payments behaviors, allowing better cash forecasting and liquidity planning.

As corporate customers demand more visibility of their payments profiles, banks can use the richness of the back-office data as a competitive element to maintain bank intimacy with customers and contrast new entrants. Banks must first change their approach to how they manage back-office data: Such data must be elaborated and "massaged" to service customer demand versus internal usage for basic reporting or regulatory compliance. Banks can add value to payments by removing the obstacles represented by clumsy back-office technology. By handing the care of back-office IT to technology and service partners, banks can better concentrate on innovation. To do so, they must enrich the payments value chain.

The principal driver to innovate payments (well debated at Sibos) is not tied to a search for more efficiency or further cost reduction (only a few banks have clear vision of their processing costs, making cost efficiency a vague value proposition to assess). While both are important factors, the real driver to innovate payments is a strategic change that allows flexibility and time to market, both relevant components of true competitive advantage. If innovation allows customers to more easily use existing products and services, its true value proposition is to simplify and standardize processes before building new infrastructure. Banks that fail to innovate do not risk client attrition (clients that may use PayPal still maintain a traditional bank account) so much as trouble with gaining new customers and cross-selling to existing ones. It is in this new facet of innovation that banks continue to lag new, non-bank players that pose serious threats to banks. These competitors are not subject to regulatory constraints as banks are, nor do they suffer from the encumbrance of legacy IT. How can banks compete considering these burdens? Once again, payments innovation provides the answer: Real-time execution of payments will eliminate obscure processes and enhance opportunities to offer a more effective, information-rich customer experience.

Banks recognize liquidity management as another main area of focus and competitive advantage. So far, solutions used by banks are very much related to reporting and compliance. What matters to bank liquidity managers is the operational aspect of liquidity management rather than mere reporting. Banks have different lines of business, and each one has the objective of finding the right sources and destinations of liquidity.

CONNECTIVITY PLATFORMS

Banks at Sibos repeatedly said that their clients are asking for multibank applications that can provide a single point of access in a multibank environment, and they acknowledge that bank proprietary platforms are not the future of this requirement. Financial messaging to connect financial supply chain (FSC) constituents is very important. Reconciliation and compliance are drivers of change and require robust connectivity. Networks must also provide aggregate information from external data sources (e.g., Bloomberg) in a way that allows network participants to easily consume them. The network connects all players that want to exchange transactions (e.g., payments, trade exchanges, funds) over any network, not only SWIFT. Corporate-to-corporate, bank-to-bank, and corporate-to-bank transactions must all be made possible. The future added value of network connectivity is to extract data from business-to-business (B2B) transaction documents.

Bottomline Technologies' recently announced acquisition of Sterci generated quite a stream of comments during Sibos meetings. The announcement signified that in the messaging hub space, large goliaths like Bottomline will swallow more niche and specialized vendors, consolidating the market. To survive, the large players need to expand from the comfort zone of handling payments transactions into the more complex (and yet profitable) domain of transactions services, B2B payments, and corporate-to-multibank connectivity. As a consequence, SWIFT risks being further sidelined to only interbank exchanges, and its efforts to reach out to corporate banking clients will likely be frustrating. Bottomline adds the capability to reach out to both corporations and banks, which further increases its competitive advantage, and it can also claim good experience in supply chain finance (SCF). This additional capability positions Bottomline as a serious partner for treasury management system (TMS) vendors that want to help their clients extend their reach beyond the four walls of the corporation.

In addition, SAP formalized agreements with banks to deploy the Financial Services Network (FSN) connectivity platform, a cloud-based solution that connects banks and other financial institutions with their corporate customers on a secure network owned and managed by SAP. SAP and participating banks are now in the implementation phase, and the next step is for SAP to reach out to its corporate customers. SAP wants to leverage the business networks of FSN and recently acquired Ariba Network as the pillars of its strategy for FIs. The network will enable SAP to offer value-added services such as supplier scoring, remittance information, bank details of network participants, and the possibility of building Software-as-a-Service (SaaS) applications using the development tools that FSN provides.

THE BANK PAYMENT OBLIGATION

The session on the bank payment obligation (BPO), rich with food for thought, presented an update from the International Chamber of Commerce (ICC) after the Q2 2013 launch of a new payment method for trade: the bank payment obligation. This innovation enables banks to extend their SCF services for their corporate clients using ICC industry rules and ISO 20022 messaging and matching standards. The briefing explored how banks are presently commercializing advanced risk and financing services in support of their customers' trade operations.

Banks face significant challenges to fulfill the expectations of their corporate clients (especially SMEs) and to finance accounts payable and accounts receivable. Banks need authenticated paper invoices to fund their SME clients, so this process has so far been a rather paper-intensive and risk-prone activity. Because the BPO is presented as a way to mitigate risk, two BPO practitioners were invited to share their experience on this front.

- The Bank of Tokyo Mitsubishi (BTMU) uses BPO as an infrastructure for its trade services offering. The BPO is not a stand-alone product within the bank but works in parallel with more traditional trade finance products (e.g., letters of credit—LCs—guarantees, forfeiting). BTMU declared that the BPO is strategically positioned as the solution that will help the bank expand its trade finance business out of Japan. In this position, the BPO becomes an accelerator of forfeiting (traditionally burdened with paper- and labor-intensive operations). The BPO will secure quick settlement by cutting unnecessary waiting time for acceptance advice.
- The second testimonial of BPO adoption came from the CEO of Dubai Trade, who centered the use of the BPO within the organization's strategy to accelerate trades. BPO is positioned as a tool that can help make trade easier, faster, and better. There are many players in a trade, and Dubai Trade confirmed that the best way to facilitate their activities is by standardizing the financial and transactional flows. For the BPO to succeed, Dubai Trade recommends that government entities become catalysts of change.

Dubai Trade shared some statistics showing that processing times for LCs are oftentimes greater than cargo transit times. Cargos generally sit idle at ports for two days before their paperwork is processed, an exercise that may cost up to US$200,000 in holding fees. Dubai Trade proposed to add value to the BPO process by collecting and handling trade document data from all trade constituents (e.g., buyers, suppliers, insurance companies, shippers, carriers) at the intersection of all trade exchanges. The value is in the data exchanged. There is no need for the seller and buyer wishing to use the BPO to log to their respective banks: Dubai Trade executes BPO transactions through its portal, relieving companies from the task of building the necessary connections to the banks.

POSITIONING THE BPO

The ICC insists that the BPO is not a product on its own. Rather, it is an "engine" that executes the overall transactions and a component of the overall accounts payable/accounts receivable process—a sort of enabler. One of the toughest issues that the ICC and SWIFT are trying to resolve relates to properly positioning the BPO. Appropriate messaging of BPO is still a major conundrum, for the contrasting meanings of BPO may end in contrasting scenarios for banks and SMEs (Table A).

Table A: BPO Scenarios

Message	Impact on bank	Impact on SME
BPO means "electronic" LC	Cannibalizes documentary credit business	Easy-to-understand value proposition as SMEs already are familiar with the concept of a traditional LC and have learned the benefits from using it
BPO means instrument for open account	More structured form of open account (OA); allows a bank to make a step into the OA market	Benefit unclear for SME when making reference to something not easily tied to a product that can be bought

Source: Aite Group

Following BTMU's speech, Aite Group believes that the best strategy for a bank embarking on the BPO journey is to position and use the BPO as a "light" version of an LC, even though that is against the ICC's declared position and intentions. As LC light, BPO provides an easily understood value proposition to a company, and the bank can use it to sell to new clients who would not want to buy traditional LC products from the bank (getting new clients while avoiding cannibalization of the still-profitable documentary credit business).

CORPORATE TREASURY

Although Sibos is an event traditionally dedicated to discussing and presenting solutions for payments, this year's conversations also touched upon the development of corporate TMSs. Announcements from corporate TMS players made the difference at this bank-centric event.

Kyriba announced a partnership with CGI, leveraging CGI's global trade solutions. With the integration of CGI Trade360, Kyriba proposes to offer a multibank trade finance solution to manage the issuance and tracking of bank guarantees as well as standby, import, and export LCs. This important announcement validates Aite Group's prediction that treasury management systems will soon become the platform for the convergence between cash and trade.[1] While this kind of convergence normally happens on bank-owned platforms, the true element of innovation and competitive advantage is that the convergence runs on a TMS platform. The platform becomes the decision support system for the treasurer, who can control all the company's sources and destinations of cash from a single point of observation.

The other announcement came from Bellin—a German TMS vendor—and SWIFT, which announced that they will implement a direct connection between Bellin's tm5 and SWIFT. Once again, this announcement suggests that treasury systems will morph into treasury intelligence management systems (TiMSs). These are platforms that will integrate and extend the operations-driven functionalities of a traditional treasury workstation with features that provide better information in order to generate intelligent decision-making. Simplicity and standardization are key to treasurers' decision-making today. Embedding SWIFT payments processing within Bellin's treasury solution and executing payments transactions from the same platform used to run daily treasury operations, all while exchanging data through a standardized messaging channel, certainly simplifies a treasurer's life. The "intelligence" of the platform resides in the possibility of easier data capture and analysis of payment behaviors, values and volume exchanged, fees paid, and types of transactions made.

Treasurers require a technology capable of retrieving pertinent information from various and independent data sources, regardless of underlying technology foundations. Expanding the reach of a basic treasury management system by turning information into intelligent decision support keeps the treasurer informed, empowered, and engaged.

1. See Aite Group's report, *The New Treasury Management Systems: Treasury Intelligence Management Systems, an Update*, April 2013.

MAKING THE CASE FOR SUPPLY CHAIN FINANCE

Banks involved in SCF programs are challenged with the task of translating the potentially intangible concept of corporate value into a series of action plans that practically build value to the corporate client. The premise is that any solution that addresses the needs and fulfills the requirements of a corporate user can legitimately be considered a generator of corporate value. It is therefore important for a bank deeply involved in SCF programs to identify areas of attention of its corporate counterparty and offer the appropriate solutions.

Conversations at Sibos show that SCF still lacks a clear business model. Banks consider it essential to have business requirements for SCF before even offering SCF products, and the difficulty of creating a business case that proves the value and ROI of a SCF program is a significant critical area for banks and corporate clients. With the objective of offering answers to real problems, banks must find a tangible, replicable, and tested approach to:

- **Build an internal business case** to align all internal team members on the business opportunities available with SCF
- **Build an external business case** that provides sufficient elements to quantitatively assess the benefits of the SCF products the bank can provide through its SCF proposed program (i.e., to a corporate client)

The difficulty of embarking is so daunting that some banks question whether they should insist on playing in the SCF space and instead adopt the SCF offer as an entry point in the sales cycle to sell ancillary transaction banking products (e.g., cash management, payments).

SUPPLY CHAIN VISIBILITY AND "ACTUARIAL TABLES" FOR SCF

One practical answer to closing the gap between corporate demand and bank supply involves breaking down silos in the corporate-to-bank relationship. The visibility of supply chain processes is an important step that will take banks closer to speaking the same language as their corporate counterparts and addressing the solutions truly needed to fulfill client expectations.

It is a well-known fact that banks are not lending to small companies because they perceive the risk as too high. The way banks assess risk, however, is mainly based on financial data and on a basic overview of operational performance. If banks were instead capable of garnering statistics on a company's performance throughout the end-to-end supply chain, the risk profile would be more accurate, and banks could decide whether they are interested in the risk and how to price it accordingly.

One topic extensively discussed during meetings regarding the ability to profile risk in steps of the supply chain process was the concept of "actuarial tables" for supply chain management. Just as the life cycle of a vehicle or a person is mapped to identify specific "trigger points" that statistically determine the likelihood of certain events—and therefore calculate correspondent actuarial values to properly price insurance premiums—the same should be possible for supply chain processes (e.g., procurement, manufacturing, shipping, distribution). An insurance company is already capable of slicing and dicing a person's or vehicle's life cycle and to then calculate and offer premiums to clients. Why would the same not be possible for a supply chain? The debate has just begun, and it will take some time to expand the subject and collect initial reactions. Aite Group will follow this chain of thoughts and report duly.

SECURITIES & INVESTMENTS EXPERIENCES

The overarching themes within the Sibos securities stream reflected the dominance of regulatory compliance and the requirement to adapt to the evolving market infrastructure landscape as points of concern for the capital markets community. Numerous sessions were dedicated to various incoming pieces of regulation such as the European Market Infrastructure Regulation (EMIR), the Central Securities Depository Regulation (CSDR), and developments such as the 2015 launch of the European Central Bank's Target2-Securities (T2S) pan-European settlement platform.

These regulatory themes handily tie in well with some of the securities industry strategic initiatives that have been developed by SWIFT under the banner of its overall SWIFT 2015 strategy:

- Connecting to and supporting communication with securities market infrastructures across the globe (especially in emerging markets), including current and future infrastructures such as T2S and central clearing counterparties (CCPs) in markets such as over-the-counter derivatives
- Extending its reach in supporting broker-to-broker confirmation matching with its SWIFT Accord platform and broker-to-client confirmation matching with its Global Electronic Trade Confirmation (GETC) platform
- Providing further regulatory reporting and compliance support functions and consultancy services, especially in the area of KYC and financial crime
- Broadening its support for reference data in areas such as legal entity data and securities master file data—another area identified as an opportunity for a utility that can supply a basic level of instrument data to the market
- Focusing on extending its "core" business by targeting more financial institutions to join the SWIFTNet network; this has been a long-term challenge for SWIFT in the securities markets because of the market penetration of rival network providers that focus on front-office connectivity and trading services, such as BT, that have extended to offer lower-cost, front- to back-office communication support

Overall, by far the greatest push from SWIFT this year was toward the industry utility model in areas that impact both its traditional payments customers and its newer securities market customers. If "co-opetition" was the buzzword a few years ago, when former SWIFT CEO Lazaro Campos first launched the 2015 strategy, this year was definitely the year of "utility" under the guidance of current SWIFT CEO Gottfried Leibbrandt. Multiple discussions took place within the securities market streams about various utilities that could be established in non-competitive areas—those that have evolved to be deemed "non-core" to revenue-generating exercises for the majority of market participants, including services in areas such as reference data and sanctions screening.

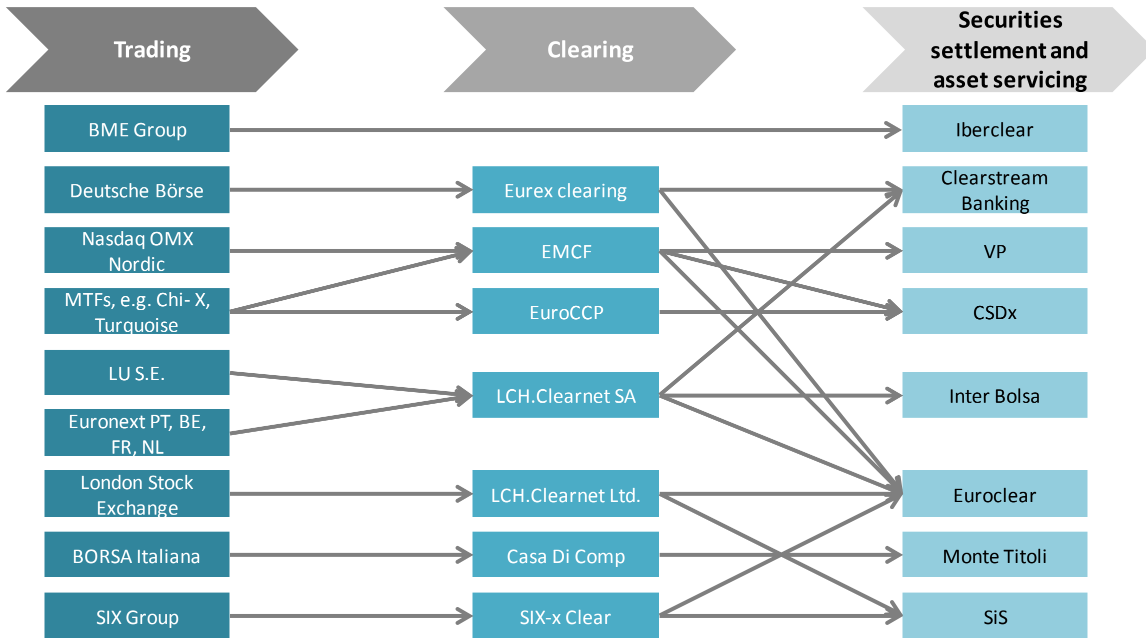
MARKET INFRASTRUCTURE EVOLUTION

T2S has been a dominant topic of conversation within the SWIFT community since it was first announced by the European Central Bank (ECB) at Sibos in 2006, but up until this year, discussion had primarily focused on the trials and tribulations (including the delays) the project has faced. This year's Sibos instead featured much more discussion about the practicalities of T2S implementation and even the potential benefits that it may bring to the European collateral landscape. A report[2] released by Clearstream and PricewaterhouseCoopers during the conference, for example, suggested that T2S's implementation could save around EUR 33 billion in terms of capital adequacy costs for banking institutions. It is anticipated that because T2S will allow for the centralized management of securities and cash, its launch will reduce credit risk in the market overall; hence, less capital will need to be shored up to meet credit risk requirements.

For those unfamiliar with the details of T2S, the intent is that almost all heavily traded securities circulating in Europe will be settled against the euro and other European currencies (those from countries that have signed up to participate) using standardized communication protocols and harmonized market practices on the T2S platform. As part of this, a single set of rules, standards, and tariffs will be applied to all transactions settled via T2S. The platform will therefore significantly alter the European settlement framework by divorcing settlement from other asset servicing functions and simplifying the current settlement market infrastructure landscape (Figure 3). Currently, firms are faced with navigating a patchwork of connectivity between clearers and central securities depositories (CSDs); T2S therefore seeks to harmonize this landscape and significantly lower the cost of cross-border settlement.

2. Collateral Management: Unlocking the Potential in Collateral, September 2013.

Figure 3: High-Level View of Current European Market Infrastructure



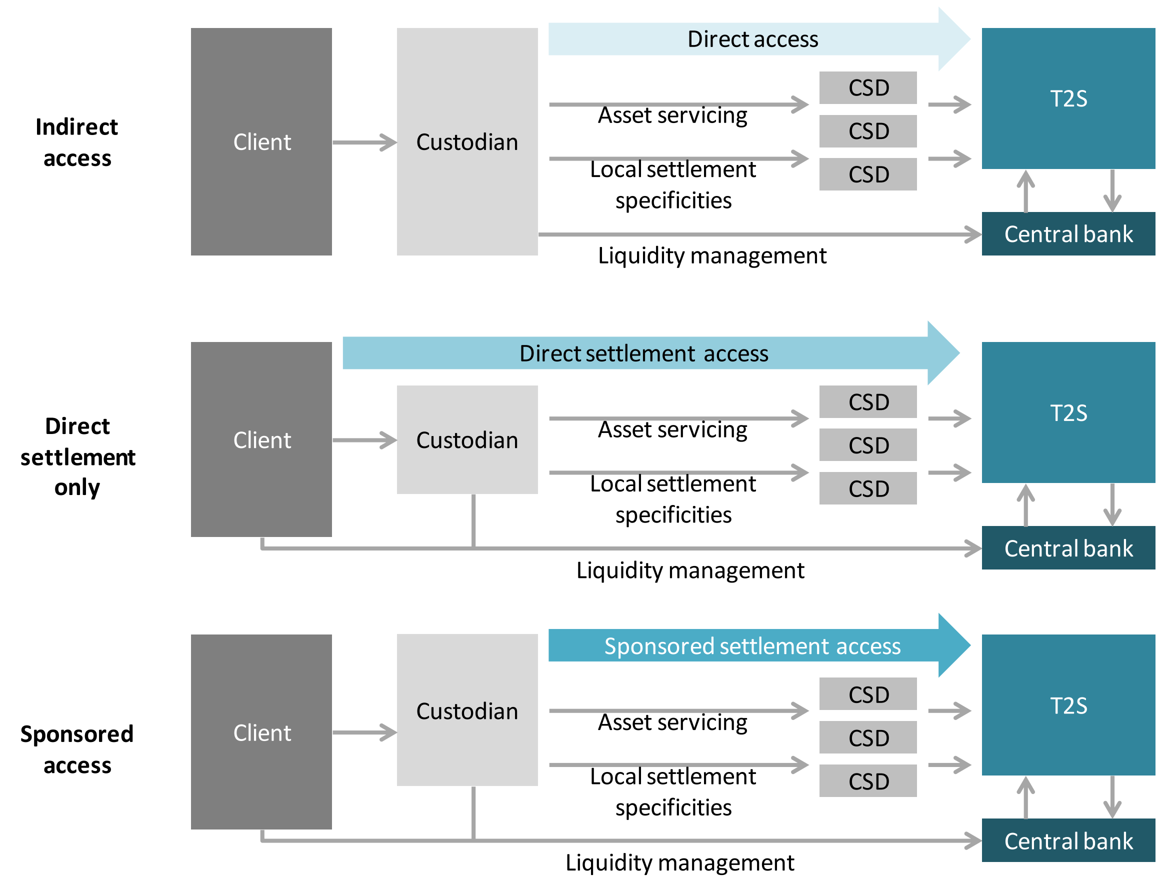
Source: Aite Group

ECB representatives at Sibos reassured conference attendees that the pan-European settlement system would not face a further delay to its launch, planned for 2015. ECB executive board member Yves Mersch informed Sibos delegates during a market infrastructure forum session that the software underlying the platform has been built and around half of it has been tested thus far. The rest of the testing is planned to take place over the next few months, after which the system will be opened up to CSDs and international CSDs (ICSDs) for further testing. The intent is to have T2S operating for the eurozone in 2015 and settlement in Danish krone to be available in 2018.

A first point of practicality for firms preparing for the launch of T2S is the question of connectivity. Until recently, it was assumed that CSDs, ICSDs, and large custodians would opt for the direct connectivity route to T2S; however, Clearstream, Euroclear, Iberclear, Interbolsa, KDD Central Securities Clearing Corporation, SIX Securities Services, BNP Paribas Securities Services, Citi, Deutsche Bank, and Societe Generale Securities Services have all opted for connectivity via SWIFT's Value Added Network (VAN). To this end, VAN has recently passed the Eurosystem Network Acceptance Test, which demonstrates that it meets all the technical and non-technical requirements of T2S. (The other main contender providing access to T2S is a partner offering between Italian vendor SIA and network provider Colt.)

Figure 4 shows three potential options for connectivity to the T2S platform for a global custodian's clients—indirect settlement access via the custodian, direct access by the client, and sponsored settlement access via the custodian. The direct model would require the client to build its own technology link to the T2S platform, whereas the other two models would not require such a move.

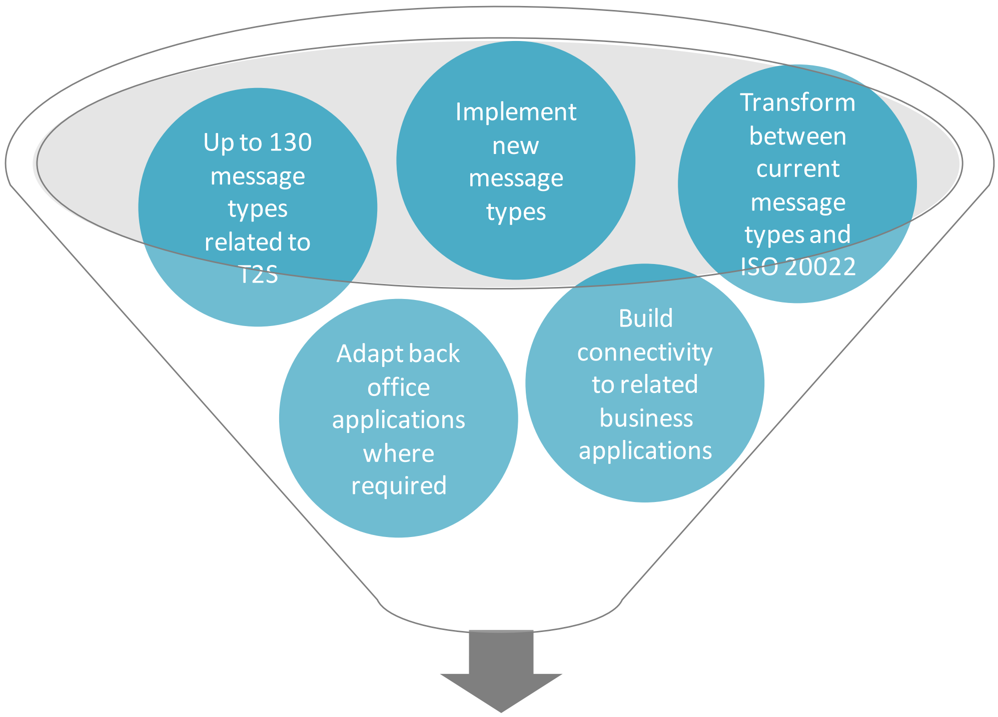
Figure 4: Three Potential Options for Connectivity to T2S



Source: Aite Group

Those that opt for direct connectivity to the platform must consider a number of integration requirements (Figure 5), including the adaptation of systems to support ISO 20022 messaging. The true cost of these requirements has not been fully explored, but Aite Group expects a relatively limited number of firms to opt for this route due to the potential complexity and high ongoing support costs involved.

Figure 5: Integration Requirements for Direct Connectivity to T2S



Source: Aite Group

T2S is forcing many domestic CSDs to replace their core systems in order to adapt their infrastructure to the new standards and support new interfaces for direct and indirect client access to the platform; as a result, operational costs are increasing. On the other side of the coin, CSDs are also facing pressure as a result of CSDR, which seeks to limit their capabilities in the market by defining the activities in which a CSD or ICSD should engage.

Overall, CSDR is focused on improving the safety and soundness of CSDs, in line with the global focus on reducing systemic risk. The main requirements of the regulation comprise:

- **The move to book-entry recording for the issuance and transfer of securities rather than physical transfer—**there is an additional requirement for securities transfers to take place via a CSD for securities traded on a trading venue regulated under the Markets in Financial Instruments Directive (MiFID)
- **The move to harmonize sanctions and penalties for settlement failure across Europe** and the introduction of a naming-and-shaming regime for those causing failures "systematically"

- **The requirement for failing firms to be subject to a "buy-in" procedure** whereby the securities that ought to be delivered must be bought in the market after the intended settlement date and delivered to the receiving participant

- **The move to harmonize the prudential framework for CSDs and ICSDs** (both treated the same under the proposals) with a view to removing the barriers to greater interconnectedness between these parties; also, the introduction of a CSD "passport" to conduct activities in other markets

- **The restriction of CSDs from conducting activities considered to be banking activities and the introduction of new risk management requirements for CSDs**, including the requirement to hold capital, retained earnings, and reserves to cover at least six months of operating expenses

- **A new authorization process for CSDs, involving national regulators and potentially the European Securities and Markets Authority (ESMA)**

- **The requirement for CSDs to segregate their clients' accounts**

- **The encouragement of settlement in central bank money**

MARKET INFRASTRUCTURE IN AFRICA

Although European infrastructure developments are always a popular topic at Sibos given the predominance of Europeans in the SWIFT community, this year saw the discussions expand to include the "MEA" bit of the "EMEA" region. In particular, the development of African financial market infrastructure aligned with the continent's growing importance with regard to global trade flows. Speakers identified the main impediment to the growth of the capital markets in Africa as the limited number of issuers in the region—there may be appetite to invest in the region, but there are not enough shares in which to invest. The first step in boosting growth in Africa is therefore encouraging African companies to list on domestic exchanges and attracting local investors to participate in the markets.

Another serious impediment to market growth, important from the perspective of foreign investors, is that custody fees, including those for clearing and settlement, are relatively high in Africa because there are very few players in the region's custody business. More new entrants would therefore improve the competitive dynamics overall. Another important step in expanding the appeal for foreign investors is allowing companies to list and settle in different international currencies and to allow remote memberships to encourage secondary trading.

Certain developments that could improve Africa's global position and foster capital markets growth include:

- Domestic African governments could play an important role by privatizing assets and creating tax incentives for capital market participants and issuers.

- Stock exchanges could reduce companies' costs for being listed and lower their transaction costs.

- Overall, domestic standards used by exchanges and other market infrastructures must be aligned with international standards to attract overseas investment.

OTC DERIVATIVES, CCPS, AND TRADE REPOSITORIES

The post-2008 regulatory crackdown on OTC derivatives has resulted from regulators' desire to reduce systemic risk within these markets, increase transparency to protect depositors, and reduce counterparty risk by moving flows from bilateral arrangements to central clearing. Most of the requirements under Dodd-Frank and EMIR focus on the swaps category of OTC derivatives, which encompasses:

- CDSs, which are priced against credit spreads
- Interest rate swaps (IRSs), which are priced against interest rate spreads
- Foreign exchange (FX) and currency swaps, which are priced against currency spreads

Discussions during the conference week centered on the industry's concerns about areas such as the specter of extraterritoriality within the regulatory arena and its negative impact on investment in the global derivatives markets. Although regulations such as Dodd-Frank and EMIR were drafted with similar goals in mind, the devil is in the details of each jurisdiction's interpretation and implementation. To this end, speakers at Sibos noted that firms have already retreated from cross-border derivatives business as a result of fear over this regulatory complexity. Different regulators moving at different speeds have exacerbated this market uncertainty and provided a high degree of deadline slippage within individual pieces of regulation.

Aite Group anticipates that the interaction of different pieces of regulation in a single jurisdiction will also prove problematic over the next couple of years. For example, in Europe, the combination of CSDR and EMIR could potentially increase the overall cost of processing a trade in the short term because the costs of compliance may be passed on to the end-user community to take into account higher leverage ratios and costs of collateral. CSDR will also change the settlement time frame across Europe from trade date plus three days (T+3) to trade date plus two days (T+2), which will shorten the time for assets to move back and forth. Shadow banking regulation targeted at lowering risk in markets such as securities lending and repo may combine with EMIR to push up the cost and complexity of collateral management.

In lieu of a globally harmonized approach to regulation, Sibos speakers highlighted a few mechanisms for coping with the shifting landscape of changing requirements:

- **Put a strong governance structure in place** within the financial institution to ensure accountability and delegation of responsibility for meeting new requirements
- **Update underlying systems and technology in key areas** such as data aggregation and risk analytics with a level of flexibility that allows for last-minute changes in reporting requirements
- **Develop a strong client communication approach** based on constant dialogue with clients to discuss pain points and identify opportunities

During a securities regulation panel, speakers described the patchwork of requirements across the globe as confusing for investors and potentially detrimental for the stability of the markets overall. The potential for CCPs to become points of concentrated risk is one area of serious concern for market participants, along with the lack of clarity in how the landscape of CCPs will evolve overall. The intense focus on cost as a result of the high cost of compliance could potentially spark a "race to the bottom" in CCPs' risk management standards, where CCPs are forced to compete on acceptability of collateral for margining purposes. The net effect of these dynamics could be that these infrastructures become points of systemic risk or CCPs that are "too big to fail."

Speakers and delegates raised numerous doubts about whether CCPs are adequately capitalized to take on the amount of risk that could result from the increase in OTC derivatives being cleared. CCPs may be able to operate and be adequately capitalized in normal market conditions, but periods of market stress may place them under undue pressure. The development of adequate, basic risk management standards common across CCPs is therefore vital to ensuring the security of the markets. The regulatory community is actively investigating this issue as part of its classification of certain market infrastructures as "systemically important."

THE TRICKY QUESTION OF COLLATERAL

This year's Sibos reprised the idea of a potential collateral shortage caused by the combination of incoming market infrastructure change and regulation. The financial crisis of 2008 resulted in elevated counterparty risk, leading to a liquidity crunch, a halting of lending activity, and idle (and thus stranded) collateral pools. This, in turn, spurred regulators to focus on requiring firms to better monitor their counterparty relationships and hold more collateral. Consequently, regulatory demands stemming from Basel III, Dodd-Frank, and EMIR are expected to silo EUR 1.48 trillion to EUR 2.96 trillion of non-cash collateral, according to estimates by the International Monetary Fund,[3] largely due to liquidity buffer and CCP margin requirements. For example, under Basel III, banks will be required to hold a liquidity coverage ratio—an amount of highly liquid assets that is equal to or greater than a bank's estimated stressed net cash outflow over a 30-day period.

Collateral velocity—the ability to move collateral across the globe—has been significantly impacted by regulation and central bank purchases of high-quality collateral. Aite Group expects that rather than a shortage of collateral, the inability to move collateral as a result of these restrictions on velocity will be the bigger challenge for the industry once these regulations go into force. This will ultimately force many more financial institutions to consider the implementation of a collateral optimization strategy, beyond those top-tier firms that have already begun working on such a strategy. Identifying cheapest-to-deliver collateral is a key part of any such strategy, taking into account the eligibility requirements of various CCPs within the market.

3. The Changing Collateral Space, IMF, January 2013.

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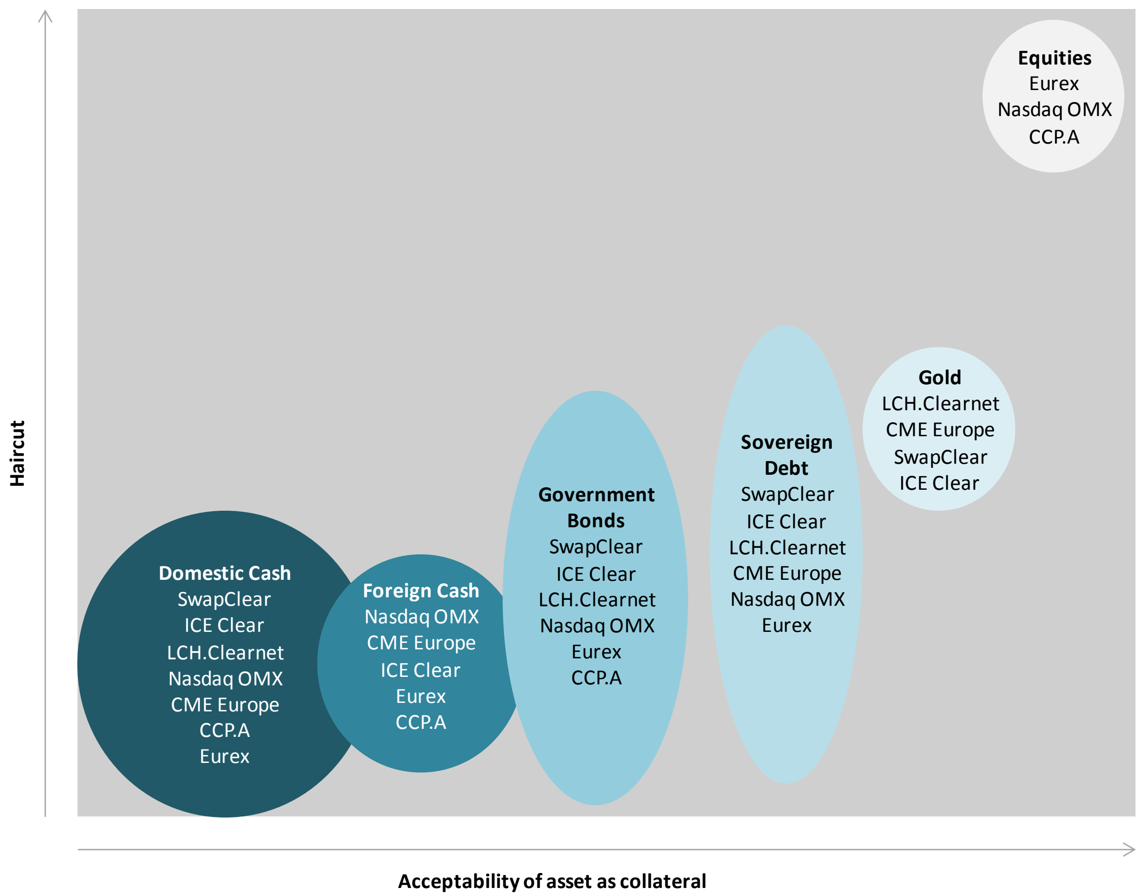
Figure 6 shows the collateral eligibility requirements for clearing at a selection of European-based CCPs, highlighting the range of assets that are accepted and the high haircuts imposed on certain assets, such as equities, because of their higher potential volatility compared with bonds. These requirements are also evolving as CCPs gradually widen their criteria in order to encourage more flow onto their platforms. Cash is still the dominant form of collateral in Europe due to its liquid nature, but the move to holding other assets as collateral is being closely monitored by regulators as a point of increased risk.

Figure 6: Collateral Eligibility Requirements at a Selection of European CCPs



Source: Aite Group

The collateral services universe is also likely to expand dramatically in order to account for the potential increase in triparty repo and securities lending activity resulting from regulatory and market infrastructure requirements. The Sibos exhibition floor certainly bore witness to numerous CSDs, ICSDs, and global custodians hawking their wares in this arena—everything from Euroclear's Collateral Highway, which it first showcased in early 2012, to Bank of New York Mellon's new Luxembourg-based CSD, which is part of its collateral transformation services package.

TRADE REPOSITORIES AND TRANSPARENCY?

Another integral part of global OTC derivatives regulation subject to discussion at Sibos was the evolution of trade repositories. One of the early securities panels discussed whether regulators collecting these particular sets of trade data could actually represent a waste of time and resources. Speakers raised the point that many of the data points being gathered by regulators are not those aggregated by financial institutions' own risk departments. They also suggested that other risk position data might be an easier means of tracking systemic risk than is transaction data.

The fragmentation of this data across multiple trade repositories across the globe was also highlighted as a significant challenge for both regulators and financial institutions. The Commodity Trading Futures Commission (CFTC) has already admitted that it is struggling to deal with the data it has received from trade repositories in the U.S. market. Multiplied by the other countries that are planning to set up repositories, this presents an even bigger data aggregation challenge, especially considering the lack of harmonization in data standards across the globe. The cost of reporting to multiple repositories using multiple formats is the biggest sticking point for financial institutions, especially where there is a high degree of disparity in reporting requirements and templates across the globe.

STANDARDS AND DATA

Following sessions on the challenges of trade repository reporting for the OTC derivatives markets, numerous standards sessions aired the idea of adopting common data standards across the capital markets community. In fact, Sibos 2013 featured a number of sessions entirely dedicated to the topic of developing a common financial language. To this end, SWIFT continued its push to encourage the industry to adopt ISO 20022-based financial messaging in certain areas of the capital markets, such as corporate actions and funds processing. Much like previous discussions at past Sibos conferences, SWIFT representatives discussed ISO 20022's ability to provide a template and a dictionary of standardized terms so that one financial institution's system output matches that of others.

There was recognition that ISO 20022 has thus far gained limited traction in these areas due to cost pressures from regulatory compliance projects and the challenge of developing a sufficiently compelling business case for adoption in a time of economic uncertainty. The potential for the future, however, was identified by speakers in the adoption of these standards by existing and new market infrastructures such as T2S. Because those connecting to the new pan-European settlement system will be compelled to adopt ISO 20022 messaging, it could be extended to adjacent asset servicing areas from this base over time.

BIG DATA

Big data was once again a topic of much debate at this year's Sibos. Although most of the discussion was focused on the potential of big data technology to revolutionize the retail side of the banking sector, there was some discussion about how it could improve support for analytics within the capital markets in areas such as risk management. Numerous speakers noted, however, that there have been some challenges for banks in commercializing this technology in order to gain a competitive edge—big data has seen a lot of hype but very little actual implementation success in the middle and back office.

Aite Group expects debate about this topic to continue at next year's event, although the terminology used to describe this technology may change—"big data" as a term appears to be facing buzzword fatigue. Moreover, there has been a fair amount of discussion about whether vague "big" is the right descriptive term and could lead to the misapplication of the concept. Numerous speakers and attendees at this year's event suggested that rather than volume or velocity of data, the biggest challenge for capital markets firms is the *variety* of the data residing in the middle and back office. The three commonly accepted principles of big data—coping with volume, velocity, and variety of data—may therefore be whittled down to one primary focus in a post-trade context.

LEI PROGRESS

This year's Sibos featured an update on the progress made by the regulatory community in implementing the new global standard for legal entity identification. Group of 20 countries agreed back in 2011 that a new standard for the identification of legal entities is required for systemic risk-monitoring purposes and potentially for reporting to regulators in a range of other contexts such as trade repository reporting and clearing of OTC derivatives. A group headed by the Financial Stability Board has proposed details surrounding how such a standard will be issued via a central operating unit (COU) and a range of local operating units (LOUs).

The core attributes of the legal entity identifier (LEI) database include:

- Record creation data (the date from which the LEI is valid)
- Last update date
- Record validation date (for the purposes of quality assessment)
- Expiry date of the record (when applicable)
- Reason for expiry
- Status of the entity (active, dissolved, etc.)
- LEI code
- Registered name (exact official name in the domestic context)
- Registered address
- Jurisdiction of registration
- Address of headquarters
- Business registry name
- Business registry identifier

Thus far, the primary issuance of LEIs has taken place in the United States as a result of Dodd-Frank compliance requirements for OTC derivatives market participants. To this end, the CFTC Interim Compliant Identifier (CICI) has been issued by a DTCC-owned utility, which launched in August 2012. Around 75,000 CICIs have thus far been issued by the U.S.-based LOU, and a number of other LOUs have been set up in jurisdictions such as the U.K. and France. These LOUs are responsible for checking and validating the accuracy and uniqueness of the registered entity, though there have been some early teething troubles due to the high level of duplicate records that have been created.

Going forward, the entities that have registered for an LEI must certify the information they initially registered each year with their LOU, and any issues must be reported for correction. In some cases, an LEI will expire if an entity is liquidated.

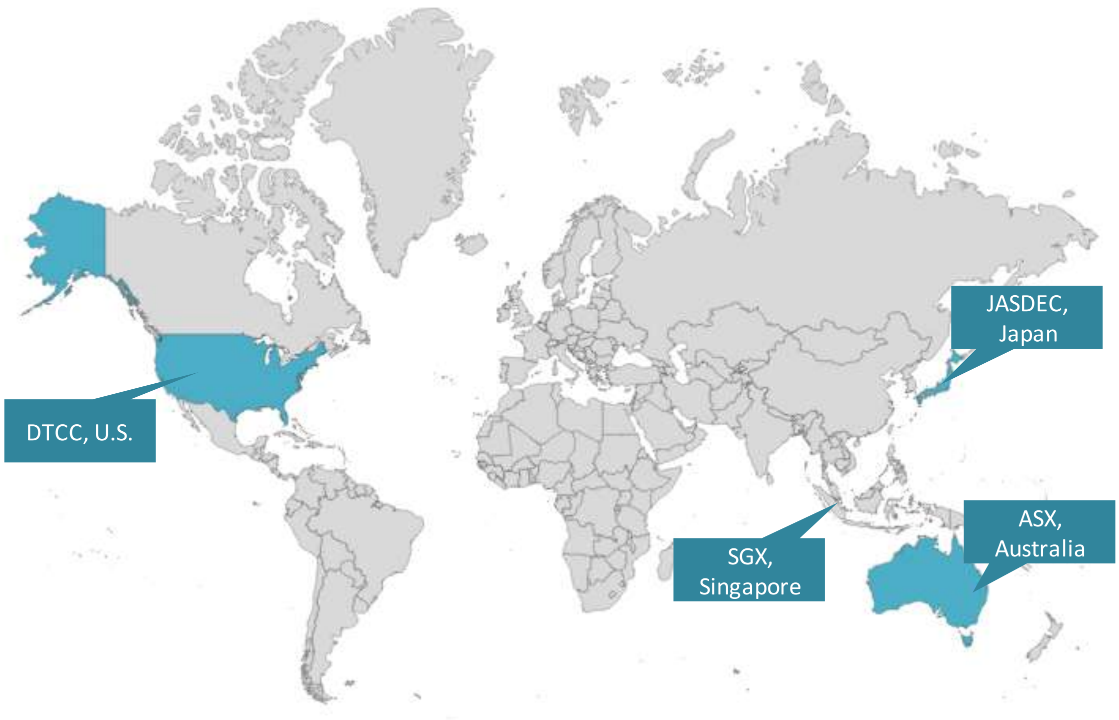
The progress toward adopting the LEI standard on a global basis has thus far been rather complicated and slow because of the late-stage decision to revise the structure of the code last year and the politicized debate about where the COU should be located. The federated registration process via multiple LOUs and the initial decision to allow certain entities to be able to register other entities such as funds has also complicated matters. Standards for communication between LOUs are being established and the details about how the COU will operate are still being ironed out, so Aite Group expects these developments to be points of concern for some time to come. It will also be interesting to see how quickly Europeans register for LEIs once EMIR comes into force.

CORPORATE ACTIONS

Sibos 2013 saw another update on the ongoing implementation of ISO 20022 in the corporate actions arena, including DTCC's reengineering initiative, which was first extensively discussed at Sibos 2011. DTCC is three years into its project to retire its proprietary systems in favor of an ISO 20022-based system that uses XBRL data tags, and it was vocal about the benefits of sending real-time messages to clients rather than the batch files used in the old systems to . Clients of DTCC are also able to track the life cycle of a corporate action using a new unique event identifier, which it contends reduces operational risk and complexity.

Outside of the United States, one of SWIFT's key focuses in the Asia-Pacific region is on supporting the Australian Stock Exchange (ASX) and the Japan Securities Depository Center (JASDEC) in their adoption of ISO 20022 messaging standards. Figure 7 shows the markets currently working toward a deadline for adoption of ISO 20022 messaging for corporate actions.

Figure 7: Markets Currently Working on ISO 20022 Adoption for Corporate Actions



Source: Aite Group

The ASX project goes live at the end of 2013 and will move issuers from providing corporate actions data in a largely unstructured manner to mandatory adoption of ISO 20022 formats. The exchange set up a dedicated issuer working group to facilitate discussions about the benefits of adopting the standard. These benefits include the ability of issuers to self-validate data (thus improving data quality), speed up the provision of that data to end investors, and to take cost out of the process by removing manual effort.

JASDEC and Tokyo Stock Exchange (TSE) plan to support ISO 20022 for issuer messages by June 2014 and to adopt a more coordinated approach to the issuer communication process. TSE has been disseminating corporate actions announcement information since 2001 via its Tokyo Market Information (TMI) service, while JASDEC is primarily responsible for the book-entry transfer system for securities such as stocks, corporate bonds, and investment trusts, and thus deals with corporate actions issues in these markets. TSE and JASDEC signed an agreement in May 2012 to cooperate and improve the data flow underlying the corporate actions process via enhancements to TSE's TMI service.

The upgrade will expand the scope of data disclosure via TMI in terms of downloadable data. Currently, securities reference data is disclosed via the JASDEC website but cannot be downloaded in bulk. Once the upgrade has been completed, market participants will be able to download this data in XML format via TMI, which will therefore act as a one-stop shop for data about Japanese-listed stocks.

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CONCLUSION

Sibos 2013 provided a good roundup of some of the key issues and challenges facing financial institutions in the current environment and the opportunities that these changes may represent for the service and solution provider communities.

On the wholesale banking front, Sibos highlighted the following:

- **Banks must innovate.** Banks need to determine how to make a better customer experience. As corporate customers demand more visibility into their payments profiles, banks can use the richness of the back-office data as a competitive element to maintain intimacy with their customers and contrast new entrants.
- **Corporate treasury offices are more focused on bank connectivity**. Banks must avoid poor connectivity to their back-office systems, which represents a barrier to entry for their corporate clients. Rather than building software solutions internally, banks should identify technical partners that can help build a data connectivity hub on top of which the bank can provide value-added services to its corporate clients. The network also must provide aggregate information from external data sources (e.g., Bloomberg) in a way that can be easily consumed by network participants. The network connects all players that want to exchange transactions (e.g., payments, trade exchanges, funds) over any network, not only SWIFT. Corporate-to-corporate, bank-to-bank, and corporate-to-bank must all be made possible. The future added value of network connectivity is to extract data from documents of B2B transactions.
- **Bank (and especially corporate) awareness of the BPO still remains rather low**, suggesting that SWIFT and the ICC's increased effort to leverage the Sibos stage to further promote and clarify the scope of the BPO instrument was a necessary and welcome step. Swift and the ICC must increase their communication efforts to build the business case of this instrument as a fully fledged tool that supports corporate clients' post- and pre-shipment finance needs.
- **SCF providers must understand client supply chains.** Both bank and non-bank providers of SCF products must understand the value proposition of these services for their corporate clients. Fundamental to this is an understanding of the impact of the clients' supply chain on their risk and funding positions. SCF also provides potential opportunities to make open account transactions more usable and financeable for the customer.

On the securities & investments front, Sibos highlighted the following trends:

- **There is (again) some appetite to investigate the utility model in non-competitive areas.** SWIFT is one of the parties making a bid to establish a utility in the financial crime arena; Aite Group expects that one of numerous hurdles ahead of the industry messaging network in establishing such a shared service will be dealing with the issue of liability. Regulatory compliance is an area not easily outsourced because of individual financial institutions' responsbility to ensure the data they are reporting to regulators and the wider market is correct. SWIFT will also need to tread carefully with regard to data privacy, especially when it comes to providing an aggregate view of activity for business intelligence purposes.

- **Firms are beginning to get much more practical about T2S.** Those that opt for direct connectivity to the platform must consider a number of integration requirements, including the adaptation of systems to support ISO 20022 messaging. Potential costs aside, Aite Group expects a relatively limited number of firms to opt for this route due to the potential complexity and high ongoing support costs involved. Most will opt for indirect access via a custodian, ICSD, or CSD.
- **A lack of collateral velocity and transparency across silos are key concerns as a result of regulation and market infrastructure change.** This will ultimately force many more financial institutions than top-tier firms to consider the implementation of a collateral optimization strategy. Identifying cheapest-to-deliver collateral is a key part of any such strategy, taking into account the eligibility requirements of various CCPs within the market.
- **The collateral services universe is likely to expand further.** A host of offerings already exists, but more are likely in order to account for the potential increase in triparty repo and securities lending activity resulting from regulatory and market infrastructure requirements.
- **ISO 20022 is gaining traction in certain areas and certain markets, but it is low going elsewhere.** The corporate actions markets in Japan, Singapore, Australia, and the United States are seeing movement toward adoption, but ISO take-up is still rather quiet in Europe.
- **Data standards and trade reporting continue to be of great concern.** Firms and market infrastructure providers are looking for clarity on reporting processes in a multitrade repository environment and the best practices for reporting trade data to multiple regulators. The CFTC's woes in this regard are a case in point for why comparable data and aggregation practices require more clarity.

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