IMPACT NOTE

NOVEMBER 2012

Virginie O'Shea

+44.7984.207.480

voshea@aitegroup.com

Enrico Camerinelli

+39.039.21.00.137

ecamerinelli@aitegroup.com

Lyn Marcrum

+1.404.842.1984

Imarcrum@aitegroup.com

Sibos 2012: An Asian Lens on Global Developments

TABLE OF CONTENTS

INTRODUCTION	4
A NOTE ON SWIFT TRAFFIC	4
WHOLESALE BANKING EXPERIENCES	7
REGULATORY COMPLIANCE	7
UNINTENDED CONSEQUENCES OF REGULATION	7
THE COST OF COMPLIANCE	8
A CALL TO ACTION	9
BANK-TO-CORPORATION CONNECTIVITY	9
THE EMERGENCE OF MULTIBANK CONNECTIVITY PLATFORMS	10
THE BANK PAYMENT OBLIGATION	11
SECURITIES AND INVESTMENTS EXPERIENCES	13
THE IMPACT OF REGULATION	14
VOLUME OF REGULATION	14
REGULATORY UNCERTAINTY AND COST	14
OTC DERIVATIVES REGULATION	15
TECHNOLOGICAL CHANGES AND REGULATION	16
COLLATERAL MANAGEMENT	16
T2S	17
CORPORATE ACTIONS IN THE ASIA-PACIFIC (AND ITALY)	18
JAPAN	19
THE REST OF THE ASIA-PACIFIC REGION	20
ITALY	21
DATA STANDARDS AND TRADE REPORTING	22
ASIAN CONCERNS ABOUT LEGAL ENTITY DATA	23
TRADE REPOSITORIES	24
CONCLUSION	26
RELATED AITE GROUP RESEARCH	28
ABOUT AITE GROUP	29
CONTACT	29

LIST OF FIGURES

FIGURE 1: AVERAGE DAILY VOLUME OF SWIFT SECURITIES AND PAYMENTS MESSAGES SINCE 2005	5
FIGURE 2: ANNUAL SWIFT SECURITIES AND PAYMENTS TRAFFIC SINCE 2005	6
FIGURE 3: PERCENTAGE OF 2012 SWIFT TRAFFIC REPRESENTED BY VARIOUS INDUSTRY DEMOGRAPHIC	CS . 6
FIGURE 4: CURRENT FLOW OF ISSUER INFORMATION IN THE JAPANESE MARKET	19
FIGURE 5: ISSUER DATA FLOW AFTER THE LAUNCH OF TSE AND JASDEC SERVICE	20
FIGURE 6: ASIA-PACIFIC SECURITIES MARKET INFRASTRUCTURES LIVE AND IN-PROGRESS WITH ISO	
CORPORATE ACTION NOTIFICATIONS	21
FIGURE 7: REVIEW OF COMPLIANCE WITH ITALIAN CORPORATE ACTIONS INPUT REQUIREMENTS, JUNE	Ξ
2012	22
FIGURE 8: THE REVISED STRUCTURE OF THE PROPOSED GLOBAL LEI	23
FIGURE 9: FSB'S LIST OF TRADE REPOSITORIES	25
LIST OF TABLES	
TABLE A: CSD PARTICIPANTS IN LINK UP MARKETS	18

INTRODUCTION

Sibos landed in Osaka on October 29, 2012, representing the first time the annual SWIFT conference has taken place on Japanese shores. Given its location, the dominant theme of the conference was providing an Asian lens on developments across the globe and showcasing the particular opportunities and challenges faced by Asian financial institutions in the current economic climate. Growth in the Asian markets is a key tenet of the Society for Worldwide Interbank Financial Telecommunication (SWIFT) 2015 strategy (announced back at Sibos 2010 in Amsterdam); hence, the event was also a chance for the industry network provider to highlight its efforts to this end, two years into its five-year strategy.

SWIFT's five-year plan is to increase its on-the-ground presence in the Asian region by 53%, focusing on the main financial market hubs in Hong Kong, Singapore, China, and India. It has also committed to supporting:

- The integration and harmonization of market infrastructure across the 10 countries that make up the Association of Southeast Asian Nations
- The internationalization of the Chinese renminbi (RMB) via the automation of RMB transactions over the SWIFT network
- The efforts of the Japan Securities Depository Center (JASDEC) to adopt ISO 20022 standards for all messaging between the Japanese central securities depository (CSD) and its participants by 2014

In terms of attendees to the conference, delegates from the payments industry have traditionally dominated Sibos and 2012 was no different, with the vast majority of delegates hailing from that sector versus around 14% from the securities industry (similar to 2011 figures). As expected, a higher percentage of delegates from the Asian region attended than in previous years, despite the fact that political disagreement between Japan and China meant that six banks—Industrial and Commercial Bank of China, Agricultural Bank of China, Bank of China, China CITIC Bank, Baoshang Bank, and Bank of Inner Mongolia—withdrew from the exhibition ahead of the event and the 5% of delegates expected from China did not attend. Given its location, there were a much higher percentage of Japanese delegates than in previous years: Japanese attendees represented 28% of registered delegates in 2012.

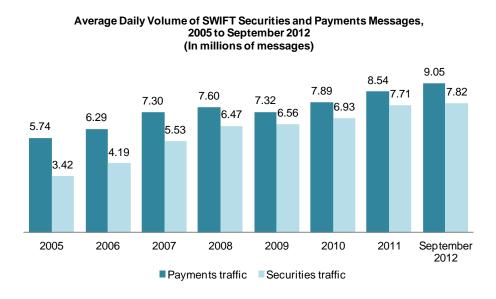
A NOTE ON SWIFT TRAFFIC

Examining SWIFTNet traffic provides an indication of the industry network provider's focus and market penetration over the last eight years. According to SWIFT, the Asia-Pacific region currently represents 12.3% of annual global SWIFT traffic, and increasing this percentage is a key focus for SWIFT over the next two years and beyond. The market can expect to see further strategic investment in the region by SWIFT, including much more work with market infrastructures in key markets—India and China being the most obvious.

On a sector-specific level, there has been a relatively steady increase in the average daily volume of securities-related messages across the SWIFT network since 2005—average daily volume of securities traffic has increased by 125% from 2005 to 2011 (Figure 1). It appears that 2012 will likely represent another year of growth for SWIFT securities traffic, as the average daily traffic between January and September 2012 has already outpaced that in 2011.

Payments traffic did not experience as much of a dramatic increase in daily volume between 2005 and 2011, with a 49% increase in volume over 2005. There was a dip in average daily volume of payments traffic in the post-crisis market of 2009, but volume has since increased and it appears that 2012 will also represent a year of growth for average daily payments traffic.

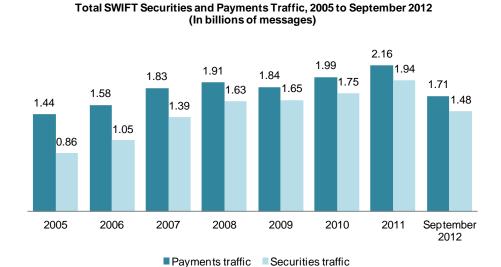
Figure 1: Average Daily Volume of SWIFT Securities and Payments Messages Since 2005



Source: SWIFT

Figure 2 shows the annual volume of traffic—payments and securities messages—between 2005 and September 2012, highlighting further the increased importance of securities messaging to SWIFT's overall message volume. In order to outpace last year's annual securities traffic volume, the industry network provider will need more than 0.46 billion securities messages to be transmitted across the network in the three final months of 2012 (October to December). In terms of payments messages, SWIFT will need more than 0.45 billion payments messages to be transmitted across the network during the same period.

Figure 2: Annual SWIFT Securities and Payments Traffic Since 2005

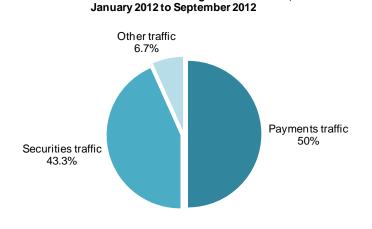


Source: SWIFT (*2012 traffic only represents up until September, not full year)

Looking at SWIFT message traffic from specific communities for the first nine months of 2012, it is possible to see that securities traffic is quickly approaching half of SWIFT's overall annual traffic (Figure 3). This reflects the focus placed on market penetration of this sector in the SWIFT 2015 strategy and its efforts to expand its reach to supporting communication to and from securities market infrastructures and CSDs. "Other traffic" in this context means traffic related to such things as corporations and trade finance.

Figure 3: Percentage of 2012 SWIFT Traffic Represented by Various Industry Demographics

Breakdown of SWIFT Message Traffic Volume,



Source: SWIFT

WHOLESALE BANKING EXPERIENCES

The one topic that permeated presentations, meetings, and private talks throughout the entire Sibos conference was the impact that regulations will have on the wholesale banking sector. Ironically, given the current economic climate, regulatory compliance was thought to be one of the few growth business areas in financial services.

REGULATORY COMPLIANCE

One of the facts that clearly emerged during conversations at Sibos is that banking regulations do not have sanctions—they are mostly based on peer review and consensus, which makes it very difficult for regulators to ensure that they are properly enforced. This is the main reason why regulators are so inflexible in the application of the norms. On their side, banks complain that before pushing for the implementation of any regulation, regulatory bodies should assess the economic impact of such directives on corporate business (such as the supply of credit). An additional reason for complaints from bank representatives is that regulatory frameworks are becoming overly complicated and that the fragmentation of regulatory-regime governance structures makes it extremely hard to comply with them. Some bankers even asked—in a rather provocative way—whether any regulator truly reads the thousands of pages of reporting documents that banks have to periodically submit.

UNINTENDED CONSEQUENCES OF REGULATION

Remarkable comments that emerged at Sibos were related to the unintended consequences that an imposed regulatory regime might provoke. An example—quite often cited—comes from the impact Basel III could have on trade finance: It is feared that the full application of the prescribed capital allocations and liquidity constraints will make lending an unprofitable business for banks, with the (unintended) consequence that banks will no longer be able to support the economy. Banks warned regulators not to overlook the counterproductive consequences that regulatory impositions have on business.

Aite Group believes that another unintended consequence is that strong regulatory pressures are pushing liquidity and services out of the banking industry, fostering the growth of financial services activities performed by firms outside of the banking sector, otherwise known as shadow banking. Intraday liquidity will also be impacted by regulators' "friendly fire" if the norms impose tighter capital allocation for these operations. Aite Group anticipates that the inevitable (unintended) consequence will materialize in limited intraday liquidity.

Making the situation even more concerning for banks and, indirectly, for corporations is the regulatory requirement that liquidity transactions must be "collateralized"; that is, each transaction must have "good" (easily liquidated) collateral. Aite Group's conclusion is that since the financial industry accounts for 8% to 10% of the total value added to the market, its role is to work for the industry and not vice versa, as regulatory pressures seem to impose. Aite Group carefully listened to banks when they questioned whether any financial transaction should be required to be "collateralized" to be executed. If they should, then Aite Group anticipates that collateral management will become an area of strategic relevance for transaction banking.

Aite Group recommends that regulators also verify whether financial institutions have enough resources to support trade in emerging countries. It is commonly agreed that trade finance will suffer from regulatory regimes such as Basel III and the Dodd-Frank Wall Street Reform and Consumer Protection Act because regulatory pressures are driving banks to opt for "polarized lending" (i.e., decision to short-lend only to targeted and credit-worthy companies—usually multinationals). This will likely further exacerbate the already poor financial support given to growing countries that need long-term lending solutions. Sibos saw numerous participating banks from emerging and developing countries strongly lamenting that their voice is not heard enough by their peer community. Economic lifecycles are also different by country, so regulators should accordingly adapt their expectations. Many national jurisdictions are still failing to collaborate with regulators, while regulators themselves present differing strategies that must be harmonized.

THE COST OF COMPLIANCE

Complying with regulations has a cost with an impact on a bank's business budget that cannot be underestimated. Based on a recent Aite Group (Q2 2012) survey of banks worldwide that have more than US\$10 billion in assets, 45% of surveyed banks will increase spending in regulatory compliance over the next 24 months. To validate this expectation, one international global bank reported at Sibos that it has to develop 6,000 lines of new software code each week to ensure compliance of its geographically distributed branch systems with all the international, regional, and domestic norms. Aite Group believes that collaborative actions among financial institutions can reduce these costs of compliance. Large global banks generate significant portions of their revenue streams from servicing their own financial institution clients. This should suggest that partnerships could be leveraged by sharing technology platforms and sourcing across banks as well as across IT providers.

Sibos also highlighted the importance for the global transaction banking business to consider additional compliance cost factors, such as the cost of noncompliance. Client mistrust of institutions is a valid example. Aite Group recommends financial institutions to take actions that can help rebuild loosened trust:

- Establish the right incentives to relationship clients to improve quality of service
- Pay more attention to corporate governance and ethics
- Always put customers first
- Reduce scandals and misbehaviors
- Implement strong governance culture, values, and principles; license to operate is given to financial institutions by society, whose expectations are quite high
- Work with public bodies to avoid repeating past mistakes; banks are not the only institutions to blame
- Increase internal education to avoid misinformation

^{1.} See Aite Group's The Bank Payment Obligation: Do Banks Care?, May 2012

A CALL TO ACTION

Banks should participate more actively in industry forums (e.g., BAFT-IFSA and the European Banking Authority—EBA). The information and suggestions collected through these industry channels can foster collaboration to improve scalable solutions. Collaboration should extend to standards, technologies, and the application of regulations. Competition among banks should reside in the decision of which clients to follow, which geographies to cover, and what level of risk appetite to apply. Another important competitive edge that clearly came out of Sibos 2012 is represented by the culture and the values of a bank.

One of the consequences of regulatory pressures—deleveraging of European banks—is opening opportunities to Asian banks that are filling the gaps. Asian banks enjoy an additional competitive advantage against their U.S. and European peers: better market liquidity. Why did markets in Asia not suffer the crisis as poorly as did their U.S. and European peers? Are their regulations more sustainable, or have banks in the former regions done their homework to become more resilient to financial shocks? During the Asian crisis in the '90s, U.S. and European banks established the rules for recovery. Asian banks "took the bitter pill" and implemented the prescribed improvement actions. When the 2008 crisis changed the world, Asian banks were able to resist while their U.S. and European counterparties floundered—apparently the latter did not apply the same rules they had prescribed.

BANK-TO-CORPORATION CONNECTIVITY

Sibos talks confirmed that technology drives new business possibilities, but corporations are against the perspective of a single-bank approach. Corporate treasurers want multibank solutions, while banks want tighter control on the products they deliver. Aite Group believes that banks can accomplish their objective without compromising their corporate clients' expectations by partnering with IT solution providers; such providers can enable the bank to offer treasury and trade functions in a single, integrated view, bringing together the bank's capabilities in foreign exchange, payments, and cash.

Standardization of technologies and processes is an important aspect that corporate executives at Sibos insisted must be considered, and banks should invest to improve automation via standardization. For instance, the Single Euro Payments Area (SEPA) directive is about to come into play, and yet there is still very little uniformity in its most characteristic deployment aspects, such as connectivity and transaction formats (e.g., IBAN code). Aite Group encourages banks to take advantage of this situation and to provide assistance to their corporate clients. The bank could offer select corporate clients access to its transactions databases, providing them with visibility into payments volume, behaviors, and benchmarking comparison with peer financial institutions—provided that permission is granted and confidential data is not disclosed.

In numerous conversations with Aite Group analysts, banks asked for better ways to provide connectivity services to their clients. Corporate clients usually have multiple "boxes" (technology solutions deployed in-house) to connect with all their bank partners, and remittances and reconciliations—usually the most sensitive (and expensive) processes for corporate users—are the first to suffer from this situation. Aite Group recognizes that poor bank-to-corporate connectivity also hits payment services: A typical project timeline to establish a solid structured

payment processing system lasts on average around two years, given the extreme complexity of both the company's and the bank's subsidiary and branch structures.

Too often, poor connectivity with a corporation's bank is a barrier to entry into wider business opportunities, and—although it cannot represent a competitive advantage—moving the service from a point-to-point environment into a networked environment via a connectivity platform improves the quality of the customer relationship so important in today's banking business. As identified by Aite Group, projects for payments transaction services are still run in technological silos. Building solutions around those silos without taking care of the back-office capabilities of the bank will only add complexity and low satisfaction for the corporate end user. A functionally structured IT back end allows the bank to deploy different solutions on any channel while managing relevant information for the client (e.g., payments remittances and reconciliations) through the same channels.

THE EMERGENCE OF MULTIBANK CONNECTIVITY PLATFORMS

At Sibos, various IT solutions providers—and some banks as well—featured software stacks that have at their foundation a data integration/connectivity layer; the stacks are topped with a layer of on-demand Software-as-a-Service (SaaS)-based applications to manage the financial supply chain. At the top of the stack, banks can assemble value-added services such as payments transactions exception handling, remittances and reconciliations with corporate enterprise resource planning (ERP), accounts receivable/payable management, and analytics. Banks can, therefore, take advantage of the opportunity to generate more business by providing applications once the connectivity piece—usually the most time consuming and cumbersome—is handled by a third-party platform provider partner. An interesting example of such a platform was presented by SAP with its Financial Services Network.

Aite Group finds that corporations can benefit from a multibank connectivity platform in multiple ways: They can reduce their total cost of ownership on payments and remittance transaction services; they can get faster connectivity with their bank partners; and, using integrated platforms that connect with all sources of data from multiple bank accounts, they can reconcile transactions and ensure better cash forecasting. Another not insignificant benefit to a corporate customer is the possibility to dramatically cut the costs to connect to a bank, which is usually in the region of hundreds of thousands of euros.

One of the most interesting findings from conversations at Sibos is that the treasury office is influencing IT spending on bank connectivity. Usually, banks link to corporations via a host-to-host connection, and it takes up to three months before the connection functions completely. The SWIFT network, with its protocols and messages, also represents an additional layer between the bank and the corporation, and this creates extra complexity. There is not always a clear direction as to how such connectivity must be provided, resulting in the following questions: What protocols should be used? Should connectivity be done through SWIFT, or does the client want a more sophisticated Internet connection? What are the formats used? Is the standard a SWIFT MT-type message, via CSV, or via IDOCS in case the corporation is an SAP client?

Connectivity platform providers do not want to replace SWIFT; rather, they tend to solve the "last mile" problem when a corporation needs to connect to multiple banking systems.

Connectivity platforms promise to establish a bank-to-corporation connection within two weeks. The major change is that the process moves from the usual flow of ERP to downloaded file to uploaded file to bank back office to a more direct, ERP-to-bank data flow connection.

The benefit to the platform provider that establishes a transactions-based price scheme? The more corporate customers connect to banks via the platform, the higher the transaction volume.

THE BANK PAYMENT OBLIGATION

The volume and value of international trade has grown, and there has been a significant shift away from the use of traditional, error-prone, expensive-to-manage documentary trade instruments in favor of more nimble, paper-free open accounts. A joint effort undertaken by SWIFT and the Banking Commission of the International Chamber of Commerce (ICC), the bank payment obligation ICCBPO is a recently introduced trade finance instrument that delivers business benefits equivalent to those previously obtained through a commercial letter of credit while eliminating the drawbacks of manual processing associated with paper-based trade finance. In short, the ICCBPO provides banks with a modern risk and financing service aligned with today's technology. According to an industry-wide set of rules set by the ICC, the ICCBPO is an irrevocable undertaking that requires payment to be made by one bank to another bank on a specified date after successful electronic matching of data.

Sibos hosted numerous presentations and panel discussions on the ICCBPO, which is still in the initial stages of definition and implementation at banks. Real case examples and definitions of criteria that help estimate the return of investment in an ICCBPO implementation are the prerequisites desired by participants and discussed in a recent Aite Group report. A number of volunteer institutions that are running test ICCBPO pilots discussed practices and experiences.

Aite Group finds that bank (and especially corporate) awareness of the ICCBPO remains rather low, suggesting that the increased effort by SWIFT and the ICC to leverage the Sibos stage to further promote and clarify the scope of the ICCBPO instrument was a necessary—and welcome—step. Aite Group expects ICCBPO stakeholders to increase communication efforts to widen the perspective of this instrument as a fully fledged tool that supports both post- and preshipment finance. According to comments gathered by Aite Group analysts from bankers at Sibos, risk mitigation, payment confirmation characteristics, and support from the ICC represent the highest value propositions of the ICCBPO.

Aite Group recognizes the strong efforts of SWIFT in promoting the instrument and creating content and information for education and awareness. The journey to a full-scale deployment of the ICCBPO is still a long one, however, and a critical mass of adopters is yet to be created. It is foreseeable that the official inclusion of the ICCBPO into the ICC's Uniform Rules for the Bank Payment Obligation (URBPO), expected by Q1 2013, will accelerate the confidence in this open-account-based instrument as a valid alternative to traditional paper-based trade finance documentary credit. Beyond the promise to replace documents with data, the ICCBPO offers the

^{2.} See Aite Group's *The Bank Payment Obligation: Do Banks Care?*, May 2012

opportunity to add financing to an open-account transaction, making it a compelling reason to implement for trade finance operators in Africa, Asia, Central and Eastern Europe, Central and South America, and the Middle East, where financial support to growing economies is a key factor in today's credit-constrained financial business scenario.

Aite Group anticipates that the widespread adoption of the BPO may prove a long journey. First movers must provide practical use cases for the ICCBPO. Banks show some interest in the ICCBPO as a financing instrument, but its true value proposition must be supported by hard facts and evidence. In other words, banks trust the potential benefits of the ICCBPO but need to see practical cases before making any further steps toward fully embracing it.

The presence of the ICC must go beyond initial accreditation to provide legally binding rules that ensure the ICCBPO is a technology-free and bank-agnostic instrument that secures payments along the entire supply chain, covering pre- and post-shipment finance. This value must not be diluted, and banks should ask for a more robust and direct intervention of the ICC in all the evolutionary steps of the instrument. Aite Group found at Sibos that both SWIFT and the ICC seek to immediately involve corporate users; the ICCBPO secures payments between trade partners and must not be restricted to interbank transactions, and participating banks must get their corporate users to test the solution and provide their feedback to accelerate the acceptance and use of the ICCBPO. SWIFT and the ICC are now involving industry associations to join the group of ICCBPO stakeholders and listen to their experiences and requirements.

SECURITIES AND INVESTMENTS EXPERIENCES

Unsurprisingly, one of the dominant themes of the conference agenda and discussions on the exhibition floor was the incoming slew of regulatory change across the globe. In fact, compliance was thought to be such a hot topic for delegates that SWIFT decided to run a dedicated compliance forum for the first time this year. This, in turn, is a reflection of the potential that SWIFT sees in expanding its reach to regulatory- and compliance-focused efforts such as the launch of its Sanctions Screening service in April 2012.

The Sanctions Screening service is designed as a centralized tool to help small- to medium-sized financial institutions handle compliance with sanctions regulations. It represents a further step for SWIFT as it moves beyond providing an industry messaging platform to providing services outside of message processing, a trend that will see the network operator begin to compete much more with its vendor partners. The market can also expect to see more acquisitions by SWIFT in future along the lines of the SunGard Ambit Messaging Hub acquisition in 2010.

Other important securities market tenets of the SWIFT 2015 strategy include:

- Connecting to and supporting communication with securities market infrastructures—both current and future infrastructures such as Target2-Securities (T2S) and central clearing counterparties
- 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 platform
- Providing further regulatory reporting and compliance support functions and consultancy services
- Extending its support for reference data in areas such as legal entity data and securities master file data; its partnership with the Depository Trust and Clearing Corporation (DTCC) for the issuance of legal entity identifiers for the U.S. swaps market is one such effort
- 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 such as BT that offer lower-cost, front- to back-office communication support

Turning back to the conference itself, the prospect of market infrastructure change caused by regulations, such as the Central Securities Depositories Regulation (CSDR) and the European Market Infrastructure Regulation (EMIR), or by central-bank-led initiatives, such as T2S, was of great concern to delegates and speakers; hence, many of the main sessions focused on these subjects. Other topics of note for securities markets practitioners are the new risk management paradigms caused by these infrastructure changes, such as the push toward optimizing collateral, the industry focus on data quality improvements to support new regulatory reports, and the ongoing adoption (or lack thereof) of International Organization for Standardization's ISO 20022 messaging standards.

THE IMPACT OF REGULATION

The focus of the regulatory discussions at this year's Sibos was on a few areas:

- The sheer volume of regulations and potential regulatory rulings
- Regulatory uncertainty and cost leading to financial firms attempting to do more with existing resources rather than investing in new business initiatives
- Consequences, both intended and otherwise, of regulations in the over-the-counter derivatives market
- Technology changes required to ensure compliance with potential regulations

VOLUME OF REGULATION

During one of the many panel sessions dedicated to regulation, firms noted that while to varying degrees they can appreciate the need for a certain amount of regulation, those in charge of developing regulations must be cautious not to go overboard and must be attentive to the consequences on liquidity and growth. Delegates and speakers alike agreed that the industry is facing an unprecedented amount of regulatory change, collapsing about 10 years' worth of regulation into about two years.

Ideally, all members of a financial market's ecosystem would be represented in discussions of reform. Since that is unfortunately not the case, financial services firms should be proactive and engage with regulators in order to influence the developing rules and to educate regulators about the impact of implementation. Another recommendation is to identify all stakeholders and impacts to the financial system and to form a coalition for regulatory engagement at a sector or interest group level (given competing interests between various groups).

Firms should dedicate appropriate and sufficient talent internally to plan for and implement regulations. In addition, the firm's overall strategy should be aligned as much as possible with regulatory and other external affairs. Geographic coordination of all external affairs is also highly recommended. In order to maximize these internal efforts, senior management should be brought on board and aligned as well.

REGULATORY UNCERTAINTY AND COST

Specific implementation rules have yet to be determined and interpreted for a number of pending regulations in several countries. Therefore, financial institutions are left hanging, wondering if what they implement for one country or market or regulator will apply to any other. In addition, the technology portions of budgets are at an all-time high, with one attendee noting that his firm's regulatory budget for IT is 70% of the total IT budget for 2013.

Prior to spending to buy or build a solution, costs are incurred for planning and amassing teams to ensure that both regulatory and business objectives are met. Little is left over for investment in new products or services for clients. Therefore, firms will likely attempt to build business differentiators into their reporting and compliance projects.

Unfortunately, as one Sibos attendee noted, the total cost of implementation may drive some smaller players out of the market. Regulations may, in fact, decrease competition because of this. Another potential outcome may be a "compliance fee" to recoup some of the cost incurred, similar to U.S. airlines charging a September 11 security fee on airfare.

OTC DERIVATIVES REGULATION

Another key discussion at this year's event was the mandate by multiple regulators that certain derivative trades be cleared via a central counterparty (CCP). One facet of this regulation is the development and operation of trade repositories to retain key information on the designated trades. Regulators aim to mitigate systemic risk and to increase transparency in the derivatives markets. Many Sibos speakers and attendees, however, expressed concerns over a range of potential consequences:

- Regulation's impact to collateral requirements and liquidity: The International
 Monetary Fund noted that "if everyone posted collateral, there would not be a need for
 CCPs." Increased collateral requirements are, however, exactly what some market
 participants worry about, along with the overall increased cost of clearing. Others argue
 that the challenge will be to match the right collateral to the right requirements and to
 manage exposure better overall in order to reduce the need for collateral.
- Concentration risk: Sibos attendees expressed concern that rather than spreading risk
 among all existing market players, the risk will be concentrated in far fewer
 infrastructures. A few attendees took the worst-case scenario a step further, asking what
 would happen if a CCP failed. In discussing moving swaps from bilateral to CCP clearing,
 the International Monetary Fund estimates the total cost of the risk to be US\$2 trillion.
 Margin posting theoretically reduces overall exposure, and another proposed way to
 improve effectiveness of a CCP would be to have a group of central banks back it.

In addition to concerns over risk aggregation, others noted that some firms, such as sovereign entities, corporations, and insurers, would be exempt from the new swaps rules. Also, not all derivative instruments are easily valued and cleared, leaving them open to bilateral clearing and the associated risk.

• Requirement to investigate and understand multiple jurisdictions' rules and to resolve handling of cross-border trades: Reporting required by new regulations will affect all types of market participants in all markets, and each market has its own rules regarding information to be disclosed and maintained. The Commodity Futures and Trading Commission (CFTC) in the United States, which has oversight responsibility for index-based swaps, requires certain reporting for credit derivatives and interest rate swaps, and other asset classes will follow in January 2013. Europe will likely require certain derivatives trading to be reported in mid-2013, and EMIR will require reporting of listed as well as OTC trades. Japan, Singapore, Hong Kong, and Australia are expected to introduce their own reporting rules in 2013.

Swaps dealers, clearinghouses, CCPs, and many other types of players will have to work together on implementation to ensure not only that regulatory requirements are met but also that potential new solutions are exploited to ease the burden for all.

TECHNOLOGICAL CHANGES AND REGULATION

Many Sibos participants agree that collateral management automation will be in high demand in the coming months. Others note that a robust data management system and structure will be key to enabling a timely response to regulatory changes. Still others insist that the issue is not technological but related to process and cultural change (although technology can help resolve some issues).

Many agree, however, that "big data" and technologies around extracting needed information (which may or may not be structured) from multiple sources and reproducing it in required forms will be critical to any firm's success in the implementation of risk-related regulatory requirements. This extraction and reformatting must occur more rapidly than ever before, as traditional methods now take too long to satisfy trade decisioning and reporting needs. A possible methodology is semantic database technology, which applies the same concept that search engines on the Internet use to find relationships between significantly different websites. Currently, the Enterprise Data Management Council is working on an initiative to develop a standard for semantic database management in financial services.

Further discussions on the role of financial services firms' chief information officers highlighted that the individuals coming into these roles must be able to drill down to the absolute value offered to firms by new, more complex technologies and the vendors that sell them. A firm's CIO is also seen as the head systems architect and chief engineer, ultimately responsible for getting the technology right. Increasingly, today's CIO must have a deep understanding of the business and of risk. Although the relationship between the business and IT can be fraught with tension, many Sibos attendees believe that the trend is now toward a more collaborative environment, especially since business users can take advantage of intuitive tools to prototype solutions and work with IT during development.

COLLATERAL MANAGEMENT

Both the upcoming requirement for firms to centrally clear OTC derivatives and the specter of Basel III reporting for banking institutions have culminated in a focus on collateral management within financial institutions of all shapes and sizes. Providing statistical proof of this trend, SWIFT indicates that there has been a 40% increase in collateralized lending over the last 12 months as a result of changes in market conditions, regulation, and market infrastructure.

The imperative to establish more robust frameworks for the management of collateral was a topic of much debate during Sibos sessions, as well as a source of tension between central and commercial banks in offering collateral. Collateral optimization and transformation strategies and what they might entail were part and parcel of these discussions, highlighting a high degree of disparity between market participants on how best to tackle these strategies in the long term.

The Sibos show floor also bore witness to a whole range of collateral management-related pitches, from international CSD Euroclear promoting its Collateral Highway to risk management technology vendors talking up their collateral and inventory management solutions. SWIFT promoted its capabilities in supporting collateral transactions via its ISO 20022 messages for bilateral arrangements and ISO 15022 messages for triparty arrangements, with the expectation that the latter will rise in volume as a result of OTC derivatives clearing.

T₂S

Much progress has been made in setting the groundwork to establish a new pan-European settlement infrastructure since the European Central Bank (ECB) first discussed the launch of such an infrastructure at Sibos 2006. The last six years have seen the project face delays (it is now planned for launch in June 2015 instead of 2013) and the opting out of several countries (such as the United Kingdom), but the ECB has continued to champion T2S and work with the CSDs of the countries that have chosen to join the project. T2S was, once again, a muchdiscussed topic at Sibos.

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.

According to the ECB, the project is on track to meet its upcoming deadlines, and the development stage was at 87% completion at the end of September, with a view to achieving 100% by the end of 2012. The focus will then turn to testing software and hardware in order to go live with euro settlement in 2015.

The CSDs that decide to join T2S will move their securities accounts to the platform for settlement purposes; to do so, they will need to establish a contractual relationship with the ECB and a technical connection to the platform. In terms of a timeline for this, it is expected that after the completion of necessary tests, T2S will become operational in June 2015. Connection to T2S will be arranged by groups of CSDs over three waves, and the current plan is for all CSDs to be connected to T2S by January 2017.

Financial institutions will be required to ready their systems to either directly connect to T2S or to connect via an intermediary such as a global custodian or CSD. Thus, standards must be adopted on the part of those that choose to connect directly and those that decide to offer services as intermediaries. To this end, in October 2012 SWIFT announced that it had joined forces with the consortium of 11 CSDs (Table A) that comprise Link Up Markets to provide connectivity to T2S. SWIFT also announced that Citi is the first customer to sign up to use its Value Added Network to connect to T2S.

Table A: CSD Participants in Link Up Markets

CSD	Country
Oesterreichische Kontrollbank	Austria
Cyprus Stock Exchange	Cyprus
VP Securities	Denmark
MCDR	Egypt
Clearstream Banking Frankfurt	Germany
Hellenic Exchanges	Greece
VP Lux	Luxembourg
VPS	Norway
Strate	South Africa
Iberclear	Spain
SIX SIS	Switzerland

Source: Link Up Markets

No doubt T2S will represent a commercial opportunity for some market players in providing connectivity and value-added services to the platform, but it will also likely result in consolidation among market participants in the asset servicing and settlement community as a whole. Sibos speakers debated the threat that the system poses to the 26 CSDs currently in operation in Europe and the custodian and subcustodian communities faced with altering their operations to connect to T2S.

CORPORATE ACTIONS IN THE ASIA-PACIFIC (AND ITALY)

Corporate actions is a persistent topic of focus for SWIFT and, in the same vein as last year's Sibos discussions about XBRL in the North American region, this year the focus of the main conference panel session on corporate actions was standards adoption and issuer communication in the Asia-Pacific region. One of SWIFT's key focuses in the Asia-Pacific region is on supporting JASDEC's adoption of ISO 20022 messaging standards and, to this end, the panel highlighted the Japanese CSD's cooperation with the Tokyo Stock Exchange (TSE) to adopt these standards for the corporate actions market.

JAPAN

JASDEC and TSE plan to support ISO 20022 for issuer messages by June 2014 and to adopt a more coordinated approach to the issuer communication process. Figure 4 highlights the current flow of issuer information via TSE and JASDEC, representing two completely separate routes to market for corporate actions information and two separate formats for these messages. 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.

Issuer Disclosure/ Notice (No CA Information Cooperation) Notice **JASDEC** токуо **TSE** [JASDEC HP, etc.] [Tokyo Market Information] Domestic Listed Companies, **Domestic Listed Companies** Corporate Bonds, Investment Trusts, Foreign Stocks, Etc. CA Info., etc. CA Info., etc. Web, File forwarding Weh Trading Participant, Sub-Custodian Editing/Processing Editing/Processing Overseas Securities Company, Global Custodian

Figure 4: Current Flow of Issuer Information in the Japanese Market

Source: JASDEC

TSE and JASDEC signed an agreement in May 2012 to cooperate and improve the data flow underlying the corporate actions process via enhancements to TMI. Information for issues handled by JASDEC—related to corporate bonds, investment trusts, bonds with subscription warrants, subscription warrants, and foreign stocks—will be added to the TMI service to provide a one-stop shop for all corporate actions information in the Japanese market. Figure 5 highlights the planned alterations to the issuer data flow once the service has been launched in June 2014.

Issuer Disclosure/ **Notice Notice** Information Co-op **JASDEC** токуо **TSE ISO Support** [JASDEC HP, etc.] [Tokyo Market Information] **Domestic Listed Companies** Domestic Listed Companies, Corporate Bonds, Investment Trusts, Corporate Bonds, Investment Trusts, Foreign Stocks, Etc. Foreign Stocks, Etc. CA Info., etc. Adoption of ISO20022 CA Info., etc. Enable download of data on corporate Web, File forwarding Weh bond, investment trust, foreign stock, etc. Trading Participant, Sub-Custodian Promote shift to STP Overseas Securities Company, Global Custodian

Figure 5: Issuer Data Flow After the Launch of TSE and JASDEC Service

Source: JASDEC

THE REST OF THE ASIA-PACIFIC REGION

The Japanese market is not alone in its standards adoption endeavors; the Australian Securities Exchange is also mandating the use of ISO 20022 standards for issuers listing on the exchange and is cooperating with its domestic regulator to this end. Figure 6 shows the Asia-Pacific countries that are currently either live with corporate actions notifications using ISO messaging or are working on projects to introduce ISO 20022 for this area. Four countries—India, Thailand, Singapore, and Indonesia—are live on ISO standards and seven countries have projects in progress.

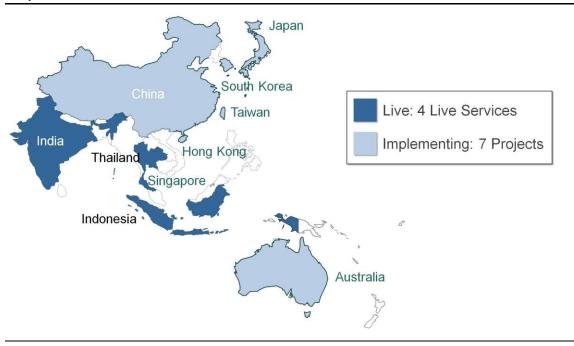


Figure 6: Asia-Pacific Securities Market Infrastructures Live and In-Progress With ISO Corporate Action Notifications

Source: SWIFT

ITALY

The panel also touched on progress in a market closer to SWIFT's headquarters in Belgium—the Italian market and Monte Titoli's success in getting its domestic regulator to mandate the use of a graphical user interface for the issuer announcement process in Italy. The Italian CSD's Webbased Monte Titoli Internet Communication System (MT-X) provides a single communication channel for the input of issuer information to the CSD and has been sanctioned by the Italian regulator Consob. Issuers can either use the template at no charge or pay Monte Titoli a fee to enter the required information on their behalf.

Figure 7 shows the level of compliance with these input requirements for Italian corporate actions issuer announcements in three categories—cash distributions, securities distributions, and distributions with options—as measured by Monte Titoli in June 2012. It indicates that there is a high level of compliance within the distributions area overall, and more progress is expected in the near future for cash distributions and distributions with options. On that note, Monte Titoli expects full compliance for corporate actions related to stock by 2013.

80%

Cash distributions

Securities distributions

Not met

Not met

Not met

Not met

Not met

Figure 7: Review of Compliance With Italian Corporate Actions Input Requirements, June 2012

Source: Monte Titoli

The experiences of Italy, Australia, and Japan could serve as a model for other countries in the European and Asia-Pacific regions seeking to standardize and automate the issuer announcement capture process. In particular, they could signal a way to engage the domestic regulator in order to ensure adherence to the new regime on the part of issuers. The introduction of a standard Web-based interface for the capture of issuer information is certainly something that should be considered by other CSDs seeking to further automate their corporate actions markets.

DATA STANDARDS AND TRADE REPORTING

The new regulatory reporting procedures to trade repositories required under Dodd-Frank and EMIR have thrown up a whole host of data quality issues for firms that fall under the new requirements. There was much discussion at Sibos about the increased level of granularity required for reporting and how firms may need to invest further in programs to improve the quality of their reference data as a result. The evolution of new data standards and identifiers for securities and legal entities was also a hot topic on the conference program, especially in the context of the Asian markets.

ASIAN CONCERNS ABOUT LEGAL ENTITY DATA

The Japanese Financial Services Authority stressed the need for local flexibility in the operation of the G-20-endorsed global legal entity identifier (LEI) registration process during a panel session on the topic. The Japanese regulator supports the creation of a new, global standard for the identification of legal entities, but it has some concern that although the new identifiers will be issued via a federated registration process, there will not be enough flexibility in how LEIs can be used.

G-20 countries currently agree 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 unspecified contexts (trade repository reporting and clearing have been proposed). The details of how such a standard will be issued via a central operating unit (COU) and a range of local operating units (LOUs) are currently being decided upon by a group headed by the Financial Stability Board (FSB). Some changes have also been made to the proposed LEI standard since Aite Group produced a report on the subject in February 2012, and these changes are a point of concern for Sibos delegates.

Figure 8 shows the revised structure of the LEI standard, which has been altered from the original form of the ISO 17442 standard. The standard remains at 20 characters, but a four-character prefix has been added to aid the issuance process and allow LOUs to operate without duplicating LEIs. The prefix will be allocated to LOUs by the COU but will not be used to identify the LOU of the LEI—the identifier will persist over the lifetime of the legal entity even if the jurisdiction of its LOU changes. The identifiers that have thus far been issued as part of the U.S. CFTC's reporting requirements for the swaps markets will be given the four-character prefix "5493."

Figure 8: The Revised Structure of the Proposed Global LEI



Source: FSB, Aite Group

^{3.} See Aite Group's <u>Legal Entity Identification: The Long and Winding Road Toward a Global Standard</u>, February 2012.

The revision of the structure of the LEI at such a late stage—the system is due for launch in March 2013—has caused some consternation and concern among market participants about the future operation of the LEI issuance system. Regulators and market practitioners are worried that interoperability be maintained among LOUs and that the structure of the LEIs issued in each jurisdiction are compatible. Asian market participants are most concerned that there be some way of coping with character sets that are not based on the Latin alphabet and that local-level validation checks be robust enough to cope with these requirements.

The quality of the information being reported to and then maintained by the LEI registry is of paramount importance if the industry and regulators are to truly support the new standards and the issuance arrangements. Any serious data quality issues and operational hitches could prove the undoing of the project in the long term if regulators and financial institutions doubt the accuracy of the data that is being maintained.

TRADE REPOSITORIES

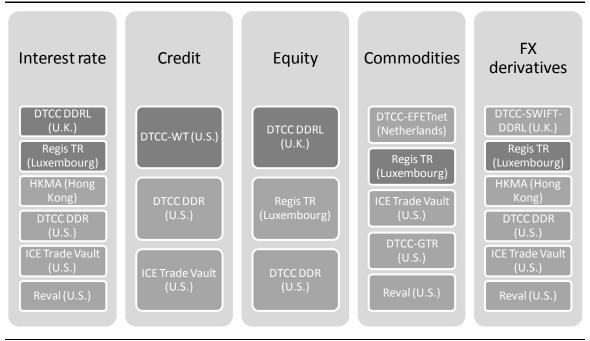
Another point of concern for Sibos delegates and speakers on the data front was the proliferation of trade repositories and the need for global coordination between these new infrastructures. The sharing of information between these bodies and the consistency of reporting formats are both vital to keep the costs of reporting down for financial institutions that operate in multiple jurisdictions. Before this can be achieved, however, serious legislative issues related to data privacy must be tackled in a cross-border context.

On a practical level, the Hong Kong Monetary Authority (HKMA) noted that it is establishing links between its repository and that of DTCC in order to enable market participants to automatically report to DTCC via HKMA, and vice versa. The current lack of clarity in exactly how many trade repositories will be established is a challenge in this endeavor and in the aggregation of data for the purposes of monitoring systemic risk.

Figure 9 shows a list of trade repositories in operation and those that are planned for launch over late 2012 and 2013, which the FSB listed earlier this year in its third six-monthly progress report on the implementation of OTC derivatives market reforms. ⁴ Many more trade repositories have since been announced for different jurisdictions and specific asset classes, but the diagram gives some insight into the potential proliferation of trade repositories with which the industry may be forced to interact.

^{4.} OTC Derivatives Market Reforms: Third Progress Report on Implementation, FSB, June 2012.

Figure 9: FSB's List of Trade Repositories



Source: FSB

The proliferation of these repositories could prove beneficial for vendors and outsources offering regulatory reporting support—firms may opt to delegate responsibility for data aggregation, cleansing, and reporting to external parties due to a shortage of in-house expertise.

CONCLUSION

Sibos 2012 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:

- Regulatory regimes are shaping the business scenario in which banks will operate.
 To avoid potential negative (and unintended) effects, regulators and banks must collaborate with corporate representatives (e.g., through industry associations) to balance the need of rigorous rules with the flexibility of their application.
- Corporate treasury offices are influencing IT spending 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 help build a data
 connectivity hub on top of which the bank can provide value-added services to its
 corporate clients.
- Bank (and—especially—corporate) awareness of the ICCBPO remains low, suggesting that the increased effort by SWIFT and the ICC to leverage the Sibos stage to further promote and clarify the scope of the ICCBPO instrument was a necessary—and welcome—step. ICCBPO stakeholders must increase their communication efforts to widen the perspective of this instrument as a fully fledged tool that supports both post- and pre-shipment finance.

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

- Regulatory uncertainty is proving a real headache for firms trying to implement
 projects when so many of the implementation details are still to be decided upon—
 the potential lack of global coordination could result in significant regulatory
 arbitrage.
- T2S will represent a commercial opportunity for some market players in providing connectivity and added-value services to the platform, but it will also likely result in consolidation among market participants in the asset servicing and settlement community.
- Data standards and trade reporting are of great concern for financial market
 participants as a result of Dodd-Frank and EMIR—firms are looking for clarity on the
 number of trade repositories they will be required to report to, the data standards
 required for reporting, and the best practices for reporting this information to
 multiple regulators.
- Data management will be increasingly important because of business- and regulatory-driven requirements to get a better handle on data for risk management reporting in real time.

- The incoming requirement for firms to centrally clear OTC derivatives and the specter of Basel III reporting for banking institutions have both culminated in a focus on collateral management—investment in this area is expected over 2013 and beyond.
- A number of countries in the Asia-Pacific region are gradually moving toward adopting ISO standards for corporate actions; hence, opportunities lie in this region for vendors and service providers seeking to offer automated solutions and data services.

RELATED AITE GROUP RESEARCH

<u>Leading U.S. Cash Management Vendors: Winning Strategies for a New Environment</u>, November 2012.

CSD Regulation and T+2: Is Judgment Day for Settlement on Its Way?, October 2012.

2012 Financial Services IT: Appetites and Expectations, September 2012.

Securities Trading in India: The Journey to a Developed Market, September 2012.

Legal Entity Data Management: A State of the Nation(s) Report, May 2012.

The Bank Payment Obligation: Do Banks Care?, May 2012.

<u>The New Treasury Management Systems: Treasury Intelligence Management Systems</u>, December 2011.

Sibos 2011: Taking the Pulse of the Financial Services Industry, October 2011.

ABOUT AITE GROUP

Aite Group is an independent research and advisory firm focused on business, technology, and regulatory issues and their impact on the financial services industry. With expertise in banking, payments, securities & investments, and insurance, Aite Group's analysts deliver comprehensive, actionable advice to key market participants in financial services. Headquartered in Boston with a presence in Chicago, New York, San Francisco, London, and Milan, Aite Group works with its clients as a partner, advisor, and catalyst, challenging their basic assumptions and ensuring they remain at the forefront of industry trends.

CONTACT

For more information on research and consulting services, please contact:

Aite Group Sales

+1.617.338.6050

sales@aitegroup.com

For all press and conference inquiries, please contact:

Patrick Kilhaney

+1.718.522.2524

pr@aitegroup.com

For all other inquiries, please contact:

info@aitegroup.com