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sibos

MONDAY PREVIEW

Welcome to Sibos in Geneva! Sibos has changed a lot since last year's record-breaking event in Singapore. Turn to the News section at the back of this edition of Sibos Issues to find out how and why we're evolving the Sibos concept. One thing that hasn't changed is our commitment to keeping you informed. Please use the Sibos Tools, Sibos App, Sibos TV and the Week-at-a-glance guide in Sibos Issues to ensure you make the most of your week.

Best wishes
Sven Bossu, head of Sibos

IN BRIEF

Supporting our community with its most critical challenges

In a fast-changing environment, SWIFT is working with the financial industry to secure the international banking system.

Ahead of Sibos 2016, SWIFT chairman Yawar Shah and CEO Gottfried Leibbrandt spoke to Sibos Issues about some of the most pressing challenges in the financial industry, and what SWIFT is doing to help.

Cyber-security

Cyber-security is one of the most serious challenges facing the global financial community. The threat has evolved as hackers hunt for ever-bigger returns. Previously, hackers focused on internet banking, preying on the comparatively weak defences of consumers' personal computers. Now, sophisticated and well-resourced criminals are targeting weak links in banks' own systems to attempt much larger thefts.

In recent months, cyber-attackers have exploited poor security practices at individual financial institutions, compromised their operating environments and obtained user access credentials to send fraudulent SWIFT messages from their back-office systems. Although there is no evidence that SWIFT's network and core messaging services have been compromised in any of these cases, SWIFT is focused on the issue.

Shah said: "SWIFT is taking the situation very seriously. This is an inflection point like no other in SWIFT's history. Cyber is a board-level issue at SWIFT, as it is for the entire financial community. Our job is to help protect the SWIFT community."

Since news of a first attack emerged earlier this year, SWIFT has repeatedly urged customers to: (1) protect their user access credentials; (2) secure the environment used to access the SWIFT network (e.g. restricting internet access to end-user PCs); and (3) activate all the latest security features and protections.

"The cyber-threat is here to stay," added Leibbrandt. "We continue to see new cases of input fraud from compromised customers' systems – this situation is far from over. Although it is reassuring that some of the cases were identified and prevented, others were not. Our users must shore up their security."

In the wake of the attack, SWIFT launched a customer security programme (CSP) to support its community's efforts. "Customer security is absolutely critical and we are committed to helping our users," Leibbrandt explained. "The CSP allows SWIFT to coordinate an industry-wide response to the cyber-security threat. Only by working together can our community effectively respond to the challenge."

Through the CSP SWIFT has, among other things, delivered enhanced security guidance to customers on how to secure their systems, issued interface updates for easier application of security features by smaller institutions, and launched a campaign to ensure users are making proper use of the built-in security features in its products and services, such as the RMA tool for managing their counterparties.

SWIFT's management has also established a dedicated Customer Security Intelligence team and retained leading forensic firms, BAE Systems and Fox-IT. Under SWIFT rules, customers are required to inform the cooperative about fraudulent use of their SWIFT products and services. This enables SWIFT to provide anonymised information about such attack methods back to the community, along with related indicators of compromise.

"Information-sharing is critical," explained Leibbrandt. "We have already seen the information-sharing initiative deliver tangible results – both providing early indications of attacks and preventing successful execution of some of the frauds. This said, information-sharing is just one of the five initiatives in the CSP, which is about establishing multiple lines of defence and controls all the way from the safety

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OPENING PLENARY

Supporting our community with its most critical challenges

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of the general customer IT environment, to the security of the customer's SWIFT infrastructure – where the payments go into the pipes – to the controls that can detect anomalies."

The SWIFT board has earmarked significant resources for the programme and is committed to ensuring its success. But, alongside this investment, both SWIFT's management and the board emphasise that collaboration is vital to the success of the programme.

"We ask our community to work with SWIFT," added Shah. "The success of the CSP does not depend on SWIFT alone – it requires a community-wide effort including SWIFT, regulators, policy makers and our customers. We will continue to engage with all these constituencies as we roll out the next parts of the programme."

Leibbrandt agreed, adding: "We will continue to help our customers with their first priority: ensuring the physical and logical security of their environments."

2020 Strategy

2016 marks the first year of SWIFT's 2020 strategy implementation and SWIFT has already started delivering against the strategic plan. The main priority of SWIFT2020 is of course SWIFT's core messaging service, but the co-operative has also set itself objectives in the important areas of compliance and market infrastructures.

On the core messaging side, SWIFT's 2016 operating performance has been impeccable. Year-to-date SWIFT has delivered 100% availability for SWIFTNet and 99.999% for FIN, while SWIFT's messaging volumes have continued to increase. SWIFT experienced two successive peak days at the end of June, exceeding the 30 million message mark in a single day on Thursday, 30th June. The company's availability performance and the two successive peak days proved once again that SWIFT keeps delivering even in very challenging operating environments.

> **The community has firmly embraced SWIFT's leadership role in providing financial crime compliance solutions.**
>
> **Gottfried Leibbrandt,** CEO, SWIFT

> **Cyber is a board-level issue at SWIFT, as it is for the entire financial community.**
>
> **Yawar Shah,** chairman, SWIFT

SWIFT is also on track to meet its market infrastructures and financial crime compliance 2020 objectives. On the market infrastructures front, a number of key infrastructures around the world are focusing on areas of specific SWIFT expertise: ISO 20022; resilience; and real-time payments. SWIFT's work on AUNPP, Australia's new infrastructure for fast, low-value payments, is also progressing well. SWIFT made the first software drop two months ahead of schedule in June, and it is now going into testing, followed by live operations.

In the compliance area, the co-operative is building three interconnected and complementary compliance utilities covering sanctions, know-your-customer (KYC) and analytics/anti-money laundering (AML). More than 2,700 correspondent banking and funds institutions are now using SWIFT's KYC Registry, and more than 500 customers are using its Sanctions Screening service. Just a few weeks ago, SWIFT announced a key milestone in the development of its Analytics / AML utility, with the launch of its Payments Data Quality service, a facility designed to support banks in addressing the requirements of FATF Recommendation 16.

"The community has firmly embraced SWIFT's leadership role in providing financial crime compliance solutions that are increasing effectiveness, driving standardisation and reducing cost for the industry," said Leibbrandt. "There's much more to come as part of our SWIFT2020 compliance commitment, including some exciting announcements here in Geneva, so watch this space!"

> **Security will feature heavily every single day of the conference!**
>
> **Gottfried Leibbrandt,** CEO, SWIFT

Looking forward

Sibos provides the stage for the global financial community to come together and discuss these and other challenges affecting its business.

With so much industry attention focused on payments and innovation, there will likely be a lot of attention on SWIFT's global payments innovation (gpi) initiative at this year's event. Designed to improve the cross-border payments experience, and announced only in December 2015, gpi already boasts more than 70 banks from across the world.

Shah said: "This initiative was really born at Sibos 2015, and is both a direct reflection of the strength of the SWIFT community, its ability to collaborate and innovate, and of the relevance of Sibos itself! We look forward to meeting our community in Geneva, to exchange ideas, discuss common challenges and develop community solutions. This is what makes the SWIFT community and Sibos unique."

Innotribe at Sibos continues to go from strength to strength and this year will cover topics ranging from the modern organisation, man-machine convergence, and platform cooperation, to distributed ledger technology and cyber-security. With FinTech growing in importance in many countries around the world, there will also be a spotlight on FinTech hubs from different continents, with a specific focus on the Swiss FinTech ecosystem.

But if one theme pervades throughout Sibos 2016, it will be security. Leibbrandt said: "We have put together an exciting Sibos programme for 2016, covering four main streams on banking, compliance, culture and securities – and trust me, security will feature heavily every single day of the conference!"

"Just as the SWIFT community invited banks' AML and sanctions officers to Sibos in the past, and we all benefited from their active participation, this year we welcome their cyber experts – and look forward to learning from them," added Shah. "SWIFT's core franchise is still correspondent banking, and the facilitation of securities clearing and settlement. This core business of the banks – as you well know – is at an inflection point with the convergence of cyber, fraud, AML and sanctions, and FinTech. The leaders of the global transaction banking business, many of whom are at Sibos, are helping us all to understand this better and address these ongoing challenges. That is what Sibos is all about.

"We look forward to welcoming you in Geneva and hope to use the opportunity to present our plans, hear your feedback, and engage with our community." ■

TO LEARN MORE ...

Opening Plenary
Monday 26 September –
11:30-12:30

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"We must retain a certain humility"

#Market Infrastructures

Thomas Jordan, chairman of the governing board of the Swiss National Bank (SNB) and member of the steering committee of the Financial Stability Board (FSB), says post-crisis reforms are stabilising the financial system, but admits there is little room for complacency.

Sibos Issues: What is your assessment of progress to date on the post-crisis reform programme overseen by the FSB and where does most work remain to be done?

Thomas Jordan: The post-crisis reforms have made the global financial system safer and more robust. Thanks to the new Basel III capital and liquidity standards, banks are now more resilient. To address the 'too big to fail' problem, global systemically-important banks also have to meet higher standards of loss absorbency, in terms of both capital and 'bail-inable' debt. There has also been important work to make derivatives markets safer.

To complete the design of the post-crisis banking reforms, the Basel Committee is currently addressing the problem of excessive variability in risk-weighted assets. In particular, it is considering setting additional constraints on the use of internal models through capital floors. Another issue currently being finalised is an additional leverage ratio requirement for global systemically-important banks.

Beyond the design of reforms, there is also still some work to be done on implementing the reforms already agreed. An important area where we need further progress is in operationalising resolution regimes and resolution plans for global systemically-important banks.

> **The importance of CCPs for the stability of the global financial system has increased in recent years and will further increase in the future.**
>
> **Thomas Jordan,** chairman of the governing board, Swiss National Bank

Sibos Issues: What are the key unintended consequences of the post-crisis reforms and what action should be taken to offset these?

Thomas Jordan: Overall, the reforms have worked as intended. To date, no relevant unintended adverse consequences have been identified from implementing the reforms. On the contrary: the cost of some reforms turned out to be lower than initially expected.

A good example is the Basel III capital reforms. Ahead of the reforms, studies by the banking industry were highly pessimistic about the social costs of more demanding capital regulations, and suggested catastrophic consequences for the global economy. However, recent research and supervisory analysis by the Bank for International Settlements or the European Banking Authority clearly indicates that higher bank capital has been associated with more robust and stable lending over time.

Recently, some market participants have raised concerns that higher capital requirements could constrain the market-making activities of broker-dealers, which may cause more fragility in bond market liquidity. However, there is no clear evidence of such a connection. In fact, there is evidence that the large build-up of leverage before the financial crisis proved to be unsustainable. Thus, it would be counter-productive to lower bank capital requirements to address liquidity concerns. Only a well-capitalised banking system can reliably provide liquidity in periods of stress.

> **To date, no relevant unintended adverse consequences have been identified from implementing the reforms.**
>
> **Thomas Jordan,** chairman of the governing board, Swiss National Bank

Sibos Issues: What are the most significant future risks to the stability of the financial system?

Thomas Jordan: Despite improvements over the last few years, the economic and financial environment continues to be challenging. The recent turbulence in financial markets, the global sell-off of bank equity and the increases in bank credit risk premia have reminded us how little it takes for market participants to question the resilience of major financial institutions. A resilient global banking system is central to our financial system. While its resilience has certainly improved significantly, I think we are not there yet and some further progress will be necessary.

I also think we need to retain a certain humility when it comes to identifying specific financial stability risks. History has taught us that it is very difficult to foresee a crisis – both for supervisory authorities and for the industry. While it is certainly useful to actively monitor developments in the financial system, we should not trust too much in our ability to spot the risks that can trigger a crisis. Financial institutions therefore need a level of resilience that is sufficient to cover 'unknown unknowns'. The recent crisis has highlighted the heavy cost of relying too much on models and not having buffers for unexpected risks.

Sibos Issues: Are market infrastructures now sufficiently robust to take on the counterparty risks they have assumed from banks under post-crisis reforms, and if not what remains to be done?

Thomas Jordan: During the financial crisis of 2007/2008, financial market infrastructures were a source of strength for the global financial system. Existing payment systems, central securities depositories and central counterparties (CCPs) performed as expected and were operationally highly resilient. However, the financial crisis revealed that not all markets relied on centralised market infrastructures that allowed efficient and effective clearing and settlement of transactions. The most obvious example is the over-the-counter (OTC) derivatives market, which consisted of a complex and opaque web of bilateral obligations with poor risk management.

"We must retain a certain humility"

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> **Future advances in technology will probably lead to a further disintermediation of traditional business models.**
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> **Thomas Jordan,** chairman of the governing board, Swiss National Bank

A key element of the post-crisis reform agenda has thus consisted of making sure that most OTC derivative trades are cleared by CCPs, with the objective of replacing the market's opaqueness and poor bilateral risk management with more transparency on exposures and highly robust centralised risk management. As a consequence, the importance of CCPs for the stability of the global financial system has increased in recent years and will further increase in the future, as more trades are passed through CCPs.

The global standard setters for market infrastructures – i.e. the Committee on Payments and Market Infrastructures (CPMI) and the International Organization of Securities Commissions (IOSCO) reacted swiftly to this development by publishing the Principles for Financial Market Infrastructures (PFMI) in 2012, which set out strengthened risk management guidelines to promote robust CCPs around the globe. Subsequently, CCPs have instituted a number of measures to put the principles into practice. However, some gaps remain, such as insufficient planning for effective management of member defaults and deficiencies in liquidity stress testing. It is thus important that CCPs continue their efforts to strengthen their resilience further.

Sibos Issues: As other firms take on roles previously provided by banks (e.g. liquidity provision in the fixed income markets, or 'FinTech' solutions in the retail payments space, etc.), what are the main oversight priorities arising from a financial stability perspective?

Thomas Jordan: In recent years, liquidity risk has become a topic of increasing concern for policy-makers. Some worry that, in fixed income markets, liquidity has become more fragile due to structural factors. Undeniably, the structure of fixed income markets has changed. There has been a shift from banks to mutual funds. The share of bonds held by the mutual fund industry has increased considerably, while decreasing for banks. Moreover, a growing proportion of funds are exposed to redemption risk. As regards the main cause of this decline in liquidity, arguably, it was the sudden worsening of economic conditions in the financial crisis – not higher capital regulation of banks. Hence, from a financial stability perspective, liquidity risk management in mutual and money market funds is a new oversight priority. In this connection, the FSB and IOSCO have published policy recommendations that are currently being implemented.

Sibos Issues: With the greater policy emphasis on markets-based financing solutions, are we seeing a long-term shift in the role of banks in the financial system and the wider economy?

Thomas Jordan: Already today, people are much less reliant on the traditional providers of financial services, such as banks. Future advances in technology will probably lead to a further disintermediation of traditional business models. As a central bank, we are interested in following these developments, and the SNB takes part in international working groups (e.g. the CPMI at the Bank for International Settlements) to study digital innovations and their potentially transformative force in financial markets.

Sibos Issues: From either a monetary policy or financial stability perspective, do you believe closer links between academia and policy-makers would be beneficial?

Thomas Jordan: In fact, the links between academia and policy are already close. Many central banks encourage their staff to publish their research in academic journals. Moreover, they organise and participate in academic conferences and run visiting programmes for scholars. On the academic side, of course, not all research is of policy relevance. However, I do not have the impression that there is too little interest at universities in producing policy-relevant insights. On the contrary, in recent years we have seen a surge in research focusing on monetary policy and financial stability. ■

TO LEARN MORE:

Opening Plenary
Monday 26 September – 11:30-12:30

The rise of the machines

#Innotribe #Financial Inclusion #Data

How will the data-driven and increasingly interconnected world of the internet of things shape the future of money?

What is the future of money? This could be both the most crucial and the most complex question to be asked at Sibos this year. At the 'Future of Money' session on Monday afternoon, delegates will hear that the future success of the financial industry depends on its response to trends that are at once highly disruptive and very closely interconnected. The session will focus on the internet of things (IoT) and how its evolution will change existing behaviour, concepts and service requirements, says moderator Udayan Goyal, co-founder and co-managing partner of Apis Partners and co-founder of the Anthemis Group. "Everything can be connected to the internet; you will have telematics in your car, geo-location on your phone. All this will generate very granular data that will say a lot about us," he says. Interconnectivity is increasing; the internet of things is becoming the internet of everything.

Knowing as much about our customers, as Goyal suggests we will be able to, would open up huge opportunities to the industry, such as dramatically refining current risk models. On the other hand, there will be challenges and complexities to the wide availability of such detailed information. "We will discuss how to deal with the unintended consequences of interconnectedness and the granularity of data," says Goyal.

New barriers

A possible consequence of the growing role of technology in all aspects of money is that it will create new barriers to financial inclusion. Speaker Carlos Menendez, president, enterprise partnerships at MasterCard, says: "The internet of things implies a transaction of everything, too. If cash, which is money in its simplest form, is available to everybody, then the opportunity to participate in the IoT economy requires financial inclusion for everybody also."

Menendez will also discuss the impact of new data sources on money itself. "Previously, money was just the means of exchange for the service. Now it's being incorporated throughout the full experience – all the way from a secure digital identity to the elements of the service itself. Take the car-on-demand reservation process for example. If 'future money' validates the passenger and their home location, these preferences can carry through the drive itself providing a more convenient and personalised experience," says Menendez. The money of the future will carry identity with it, and thus sensitive personal data. This needs careful handling. Delegates will hear Amber Case, cyborg anthropologist, and Harvard Berkman Klein Center fellow, speak about security implications. Case says: "I want to talk about the idea that *you* should own your information first, and a third party should only be able to access that information for a temporary period in order to get something done. The ideal user experience would be one in which you can see what's happening to your data, and authorise transactions at each point of exchange."

Case, author of the book 'Calm Technology', will also discuss a number of principles for managing the devices and the data that comprise the IoT. "We live in an age of intrusive media. Technology should be there when you need it, and not when you don't," says Case. If we are all cyborgs now – in the sense that we use technology to enhance, extend and add to our innate abilities – the challenge for the future will be to achieve a harmonious relationship with technology. "Technology should enhance the human experience, not detract from it. Our devices should amplify the best of humanity and the best of technology. Artificial Intelligence can help automate our systems, but customer service is still essential," says Case. That's something humans can never automate. "It wouldn't be wise for human connection to be replaced by machines," Case concludes.

"Previously, money was just the means of exchange for the service. Now it's being incorporated throughout the full experience."

Carlos Menendez, president, enterprise partnerships, MasterCard

"Artificial intelligence can help automate our systems, but customer service is still essential."

Amber Case, fellow, Harvard Berkman Klein Center

"Everything can be connected to the internet – this will generate very granular data that will say a lot about us."

Udayan Goyal, co-founder, Apis Partners

Shifting liabilities?

As our relationships evolve with increasingly autonomous, internet-enabled technologies, so must the relationship between these technologies and financial services. "The infrastructure needs to move towards real-time payments, and it also needs to be highly secure," says Goyal. A related trend to be discussed at the session is the ongoing dematerialisation of intellectual property. "If you download the plans for a toy for your child, and print the toy with your 3D printer, where does the product liability sit if somebody has hacked the plans and added something that makes the toy unsafe?" posits Goyal. In the tightly interconnected economy of the future, the careful management of intellectual property – alongside the maintenance of appropriate levels of security and privacy – will be crucial to successful long-term provision of financial services, he suggests.

Interconnectedness and automation - while introducing huge benefits - can also introduce new risks. For instance, any automated system has the potential to create unstable feedback loops. "What may happen is that sets of data may cause a positive feedback loop which may cause an instability in the system, prompting an unintended outcome," says Goyal. The US stock market 'flash crash' of May 2010, and subsequent smaller bouts of extreme volatility demonstrate how automated trading systems can over-react to market data feeds, but unstable feedback loops can also pose a risk at the individual level. "They could just as easily happen in your credit file: there could be some instability and suddenly your credit file blows up," says Goyal.

Managing the risks of new innovation is important, but so too is seizing the opportunities. MasterCard's Menendez sees scope for optimism. "Big data is only recently starting to spur economic growth and innovation. We are just beginning to touch the power of connected devices. We have a responsibility to build a future in which this connectivity happens in a financially inclusive manner for the benefit of all parts of society," says Menendez, who will remind delegates that, for all the challenges, we are increasingly well-placed to understand not only our individual customers but also the economic systems in which they live and transact.

The future of money will be determined partly by the data we have, partly by the devices we use, and partly by the people – the cyborgs – we and our customers are becoming, as new technologies create new expectations, new behaviours, new customer needs and service offerings – and new vulnerabilities. The 'Future of Money' session will identify and analyse the trends that are crucial to the future success of our industry. ■

TO LEARN MORE ...

Future of Money
Monday 26 September – 14:00-15:00


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Joined-up thinking on fighting financial crime

Stuart Levey was appointed to the newly-created position of chief legal officer of HSBC Holdings in January 2012. Prior to joining HSBC, he had served in both the US Department of the Treasury and the US Department of Justice, which he joined from private practice in 2001. While at the US Treasury between 2004 and 2011, he served as first under secretary for terrorism and financial intelligence under Presidents Bush and Obama.

#Payments #Financial Inclusion

Opening Sibos 2016's compliance stream, Stuart Levey, chief legal officer of HSBC Holdings, will make the case that now is the time to build 'true' collaboration between government and the private sector to combat financial crime and preserve the integrity of the global financial system. A combination of factors – notably a broad acceptance of the effectiveness of financial tools in fighting financial crime and concerns about financial exclusion due to de-risking – provide an opportunity for increased momentum on information-sharing issues, argues Levey.

Sibos Issues: What do you consider the single biggest risk and compliance challenge facing the banking industry today?

Stuart Levey: In addressing this issue, the biggest challenge the industry faces right now is how to achieve a greater level of 'true' collaboration between government and the private sector in the fight against financial crime. It is an area in which the private and public sector have a shared goal of preserving the integrity of the financial system and detecting and preventing financial crime. While there has been some progress, up until now they have been pursuing this largely by relying upon completely different sets of information and not collaborating as well as they could. There is of course required reporting and there are also some good pilot efforts to enhance information exchange. But we are still a long way off of a dynamic, real-time conversation between government and the financial sector in which there is a regular flow of information.

I have witnessed this from both sides, having served in government and in my present role at a global financial institution, and conclude that we are not reaching our true potential. The absence of this kind of dynamic dialogue – and the barriers that exist to sharing information cross-border within an institution, among institutions, and between government and the private sector – means that we are lagging behind criminals and others who seek to abuse the financial system who are operating in a cross-border, high-tech fashion.

The challenge is not new and the audience attending Sibos are familiar with the need for greater information-sharing and collaboration. But there are two factors that make this moment in time the best opportunity we have ever had, at least since I started working on this in 2001, to achieve real progress.

One, there is definitive evidence that the fight against financial crime is here to stay. It has become a critical component of governmental policy. In the past, the value of fighting financial crime was not always clear, but this is no longer the case. The power of efforts in this regard over the last 10 years has been demonstrated. As just one example, the Iran nuclear deal showed how effective the use of financial measures can be. Before efforts to pressure Iran financially started in 2006, many people had been sceptical that financial measures, and in this case especially sanctions, could have any real impact. Now it's clear they created leverage that laid the groundwork for a deal; the only debate is whether the leverage was used wisely. There has also been success in tackling terrorism financing, as demonstrated by the diminishing effect it has had on the core of al-Qaeda. Today, the whole world stands convinced by the power of financial measures. Once a new set of policy agenda items for governments, it is now embedded as a viable policy tool.

The second factor stems from the phenomenon of de-risking. Banks, out of a desire to keep financial crime out of their institutions, have increasingly implemented de-risking initiatives, exiting high-risk categories of clients and curtailing operations in high-risk jurisdictions. This has had the unintended consequence of exacerbating the problem of financial exclusion. In our effort to prevent financial crime we need to ensure innocent people are not excluded from the financial system.

To accomplish both objectives calls for a highly targeted and precise approach to tackling financial crime. And to achieve this outcome requires increased collaboration and information-sharing both between government and the private sector and amongst the financial sector itself.

Sibos Issues: How do you overcome vested interests and divergent governmental priorities to create a 'true' spirit of collaboration at both a pan-industry level and between governments?

Stuart Levey: Attention is now front and centre on de-risking and avoiding the unintended consequence of financial exclusion. These are real policy problems for governments. Government agencies are warning against a blanket approach to de-risking. This now forms a part of the G20 agenda. The highest level of government is grappling with the problem of financial exclusion and the lack of availability of correspondent banking services in certain countries. At the same time, there is a strong desire to be even more effective in fighting financial crime. The solution to both of those issues is better collaboration and the improved analysis of information that will stem from that. Then both government and industry will be able to better focus their efforts on the truly bad actors.

Sibos Issues: How high a priority is this for banks?

Stuart Levey: My impression is that this is a very high priority across the industry and will stay that way for the foreseeable future for a number of reasons. In part this stems from success at a policy level in pursuing initiatives to counter illicit finance and preserve the integrity of the financial system, which will remain a top priority. There is also a shared interest among government and the private sector to tackle financial crime more efficiently and effectively, something that can only be achieved through close collaboration and better sharing of information.

Joined-up thinking on fighting financial crime

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> **There is a shared interest among government and the private sector to tackle financial crime more efficiently and effectively.**
>
> **Stuart Levey,** chief legal officer, HSBC Holdings

Sibos Issues: Tackling financial crime is a board-level priority. As such, should banks be focused on the composition of the board, appointing non-executive directors with expertise in counter-terrorism and combatting criminal activity?

Stuart Levey: It is clearly useful to do that and is the approach HSBC has taken. Lord Evans* sits on our board, having previously served as the director-general of MI5. Jim Comey** also served on the HSBC board prior to his appointment as the director of the US Federal Bureau of Investigation in 2013. A board-level committee has also been established which includes former government officials and advises the bank on issues relating to financial crime. By bringing this type of expertise in-house we are actively creating connectivity to the issues in the fight against illicit activity. It creates a dialogue at another level about how to do this better.

In the UK, this approach has gone some way to yielding an initiative called 'JMLIT', the Joint Money Laundering Intelligence Taskforce, a collaboration between the UK government on the one hand and a number of banks, including HSBC, on the other. Up to 20 international banks are involved, along with the British Bankers' association. They are working collaboratively with the UK's financial crime agency to share information and analysis to better determine the true scale of money laundering and the methods used by criminals and terrorists to exploit the UK financial system. This is step one on a long road. I am encouraged though. One of the footnotes to the political change in the UK is that this type of collaborative initiative was promoted and supported directly by Theresa May when she was home secretary. That should be seen as a positive in terms of the political will and support we expect to receive as we move forward.

Sibos Issues: Is this level of active governmental support mirrored elsewhere and how do you go about incentivising public and private partnerships of this kind?

Stuart Levey: There is progress toward similar initiatives in the US. The industry has to tell governments: 'Look, you want to do two things. You want to fight financial crime effectively, while ensuring this doesn't simultaneously lead to financial exclusion as a consequence of de-risking.

> **In our effort to prevent financial crime we need to ensure innocent people are not excluded from the financial system.**
>
> **Stuart Levey,** chief legal officer, HSBC Holdings

We agree with you on both objectives and the way to achieve a positive outcome is to collaborate and gain better access to data and thereby fight financial crime more effectively. It will be an iterative process, in the sense that we will be providing you with information and you can tell us whether it is helpful or not and that will help us in turn give you better information.'

In this way, we will be able to better target bad actors in the financial system without compromising access to banking services for innocent clients. Real-time collaboration is the way to get this done. It is not the way we have done things in the past. The whole suspicious activity report filing system is important, but it is neither real time nor is it iterative. We can do it better.

This is the type of dialogue that boards and senior executives can engage in with government. These are the things we as an industry should be actively supporting, because in the end we all stand to benefit.

Sibos Issues: What is the cost of failure if, despite the best intentions, government and the industry fail to truly collaborate in the fight against financial crime?

Stuart Levey: One of two things will happen. Either we will not be effective in keeping illicit actors out of the financial system or we will be ineffective at avoiding financial exclusion as a consequence of not being precise enough in our efforts. That's what failure means to the industry. What failure means to an institution we are all quite familiar with and that is what drives the incentive to de-risk.

Sibos Issues: What you outline amounts to a 'call to action'. What do you want to see come out of Sibos in terms of 'next steps' in moving the debate forward?

Stuart Levey: I would like to see a political commitment and imperative to pursue collaboration, even to the extent of looking at the legal barriers that exist now to that collaboration. We need a true dialogue with the industry about what the legal barriers are and how they could be removed. I'd also like the industry to make clear that our desire for collaboration is well intentioned. Our intentions here are to truly protect the integrity of the financial system. It is great to be more efficient and cost-effective but the real incentive here is to protect the financial system. If people understood there were good intentions on both sides I think we could make the necessary reforms as well as forging greater public and private collaboration. I'd also like to see recognition that JMLIT is the kind of initiative we could do more robustly to change the whole environment.

Sibos Issues: Beyond Sibos, is there a role for SWIFT in promoting this agenda?

Stuart Levey: The answer to that is yes. There are already tools that SWIFT offers that are very effective. From where SWIFT sits in terms of its unparalleled access to information it has the potential to be a key player in the kind of effort I am talking about. If we were able to effectively address the privacy and confidentiality issues and derive the benefit of the data that SWIFT collects, it could potentially play a quite dramatic role in fighting financial crime.

Sibos Issues: How do you address the delicate balance between preserving the confidentiality of SWIFT data and utilising its content to fight financial crime?

Stuart Levey: The role I performed in a previous life makes me highly sensitive to the complications that exist. In my experience, when people focus seriously on sharing information for a particular, valid purpose on the one hand and on the other are serious about protecting privacy a way can be found. While a challenge, I don't consider this an insurmountable obstacle. ■

TO LEARN MORE …

Opening of the compliance stream
Monday 26 September – 10:15-11:15

**Lord Evans of Weardale was appointed to the Board of HSBC Holdings in August 2013. He spent over 33 years in the UK Security Service, six as director general. Lord Evans' experience includes counter-espionage, protection of classified information and the security of critical national infrastructure. As Director General he was a senior advisor to the UK government on national security policy and attended the National Security Council.*

***Jim Comey served on the Board of Directors of HSBC Holdings until July 2013.*

Sibos week at a glance

MONDAY 26 SEPTEMBER

BIG ISSUE DEBATE / PLENARY
11:30-12:30 Sibos: Opening plenary Plenary
14:00-15:00 Future of Money Plenary

BANKING
09:00-10:00 Cyber resilience in a changing world Conference Room 2
09:00-10:00 Making real time successful in the Eurozone Conference Room 1
10:15-11:15 Technology trends in financial services Conference Room 2
15:30-16:30 Blockchain 2020 – What next for adoption by the financial industry? Conference Room 2
15:30-16:30 Single market and capital markets union – The future role of financial market infrastructures Conference Room 3

SECURITIES
09:00-10:00 EU securities markets transformation - Is the glass half empty or half full? Workshop A

COMPLIANCE
10:15-11:15 Opening of the Compliance stream Conference Room 1
15:30-16:30 How to safely bank low-risk clients in high-risk jurisdictions: Is it time to "re-risk"? Conference Room 1

CULTURE
09:00-10:00 Education: Blockchain 101 – An introduction to mutual distributed ledgers without the cryptocurrencies Conference Room 4
10:15-11:15 Design and user experience (UX) in banking Conference Room 3
10:15-11:15 Why gender equality is good for everyone – Men included Conference Room 4
15:00-17:00 Cyber crisis management workshop Workshop A

STANDARDS FORUM
09:30-10:00 Global landscape and standards roadmap Standards Forum
10:00-11:15 Standards SATNAV: Roadmaps through the global landscape Standards Forum
13:00-13:45 Official opening of SF@Sibos 2016: Standards bodies discuss their roadmaps Standards Forum
15:00-15:45 Standards and regulatory reform Standards Forum
16:00-16:45 SMPG and PMPG roadmaps Standards Forum

INNOTRIBE
09:00-09:30 Innotribe week opening and Industry Challenge on Securities Innotribe
09:30-11:15 Patterns of disruption in wholesale banking Innotribe
12:45-13:45 FinTech hubs - Switzerland Innotribe
15:15-16:45 Emerging technologies for financial services Innotribe
17:00-17:30 Innotribe day closing (Disruption, Day 1) Innotribe

SWIFT INSTITUTE
10:15-10:45 Cyber attacks & AI predictions SWIFT Stand
15:30-16:00 FinTech: Reshaping banking with co-opetition and disruption SWIFT Stand
16:30-17:15 "A Question of Finance" - The Sibos quiz show SWIFT Stand

COMMUNITY
09:00-10:00 ICC trade and supply chain finance briefing Conference Room 3
09:00-10:00 Facilitating communication cross border with issuers Workshop B
09:00-10:00 Immediate, open and context – The perfect storm in payments Conference Room 5
10:15-11:15 The future at your fingertips – The European market infrastructure of tomorrow Conference Room 5
12:45-13:45 Instant payments – Impacts of the new normal Conference Room 5
12:45-13:45 The transformation decade in wholesale transaction banking: Insights from the Boston Consulting Group's global payment model Conference Room 4
15:30-16:30 CIPS: The next generation of financial market infrastructure for RMB internationalisation Conference Room 5
15:30-16:30 McKinsey & Company's global payments report Conference Room 4

OPEN THEATRE
10:00-10:30 Earthport: Collaborate and evolve: The role of collaboration in the evolution of global financial services Open Theatre 1
10:00-10:30 Accessing China Markets: New Channels? Greater efficiencies? Open Theatre 2
10:45-11:15 Backbase: The digital transformation journey in commercial banking Open Theatre 1
10:45-11:15 ERI Bancaire: Digital transformation - Obtaining real value Open Theatre 2
11:30-12:00 Insights on Blockchain: a panel discussion of early adopters hosted by IBM Open Theatre 1
11:30-12:00 NTT DATA Corporation: Regulatory compliance with utilising 'Golden (data) source' Open Theatre 2
12:15-12:45 SAP SE: Payments revolution: Blockchain enabled cross-border payments Open Theatre 2
12:45-13:15 Temenos: Meeting the needs of the corporate treasurer: Taking the results of the global survey and making them a reality Open Theatre 1
14:00-14:30 Equens: XS2A - How to innovate and lead in the future Open Theatre 1
14:00-14:30 Dell Banking and Financial Services: Real-time payments innovation – Enhancing customer experience while creating new services Open Theatre 2
14:45-15:15 Dow Jones: Cybersecurity: The challenge of really knowing your suppliers and customers Open Theatre 1
14:45-15:15 CBW Bank: Next-generation correspondent banking Open Theatre 2
15:30-16:00 Capgemini Financial Services with Pitney Bowes: Entity resolution in Anti Money Laundering Open Theatre 1
15:30-16:00 Ericsson: Greater than the sum of its parts – The elusive case of interoperability for digital financial services Open Theatre 2
16:15-16:45 Ripple: Real-time cross-border corporate disbursements: Live demo Open Theatre 1
16:15-16:45 Fiserv:The analytic advantage: Stay one step ahead of cyber fraud Open Theatre 2
17:00-17:30 Infosys: How can blockchain solve the business problem Open Theatre 1

SWIFT AUDITORIUM
09:30-10:15 Introducing Payments Data Quality – SWIFT's new offering to support compliance with FATF Recommendation 16 SWIFT Auditorium
10:30-11:15 The global payments innovation initiative: A new standard in cross-border payments SWIFT Auditorium
13:00-13:45 Enabling new capabilities with SWIFT's Interfaces and Integration portfolio SWIFT Auditorium
15:30-16:15 SWIFT Customer Security Programme SWIFT Auditorium
16:30-17:15 Screening in the cloud. Why 500 banks have made the move. What's next? SWIFT Auditorium

SWIFT LAB
09:30-10:00 Get insights into SWIFT products: From classroom trainings to eLearning via SWIFTSmart SWIFT Lab
10:10-10:40 Discover R&D@SWIFT: Distributed Ledger Technology SWIFT Lab
10:45-11:15 Discover R&D@SWIFT: SWIFT Post-trade Risk Alerting service SWIFT Lab
13:00-13:30 Talk over lunch: How do you turn idea into reality? Let's get building with F10 Fintech incubator/accelerator powered by SIX SWIFT Lab
15:15-16:15 Discover R&D@SWIFT: Bringing alive the SWIFT gpi payments Tracker and Observer SWIFT Lab
16:30-17:00 Discover R&D@SWIFT: New offering to support compliance with FATF Recommendation 16 SWIFT Lab

TUESDAY 27 SEPTEMBER

BIG ISSUE DEBATE / PLENARY
11:30-12:30 Financial Stability - The future of global finance Plenary
14:00-15:00 Cybersecurity – Catching the bad guys Plenary

BANKING
10:15-11:15 Payments interoperability across communities and currencies Conference Room 2

SECURITIES
09:00-10:00 Enabling the investment management's next era: The rise of the robo-adviser Conference Room 3
10:15-11:15 When RegTech meets FinTech: the day after tomorrow - How technology disruption intersects with regulation in securities Conference Room 3
10:15-11:15 Latest developments in the FX Markets: The impact of current regulation and insights into future market evolution Workshop A
14:00-15:00 The role of regulation in asset management Workshop B
15:30-16:30 The future of funds hubs Conference Room 3

COMPLIANCE
09:00-10:00 Evolution of correspondent banking: Can compliance help defend the model? Conference Room 1
10:15-11:15 Recent trends in counter terrorist financing Conference Room 1
15:30-16:30 Utilities: Reaching the tipping point? Conference Room 1

CULTURE
09:00-10:00 Building a culture of security Conference Room 2
15:00-17:00 Cyber crisis management workshop Workshop A
15:30-16:30 Diversity and inclusion – The leaders' perspective Conference Room 2

STANDARDS FORUM
09:30-10:00 On the drawing board – The role of standards in disruption, with Professor Michael Mainelli Standards Forum
10:00-11:15 Audience Discussion: What should we learn – or reject - from disruptors? Standards Forum
13:00-13:45 Business standards in the DLT stack Standards Forum
15:00-15:45 Standards governance and mechanisation Standards Forum

INNOTRIBE
09:00-09:30 Innotribe day opening and Startup Challenge for Africa Innotribe
09:30-11:15 Organise for complexity Innotribe
12:45-13:45 FinTech hubs - EMEA Innotribe
15:15-16:45 Situational awareness maps Innotribe
17:00-17:30 Innotribe day closing (Organisation, Day 2) Innotribe

SWIFT INSTITUTE
15:30-16:00 Divergence In finance - Big bang blockchains or boring lowly ledgers? SWIFT Stand

COMMUNITY
09:00-10:00 Cultivating purpose-driven intrapreneurs Workshop B
09:00-10:00 Payment strategies for the future Conference Room 5
09:00-10:00 Payments are running fast Conference Room 4
10:15-11:15 Exploring the global trade landscape Conference Room 4
10:15-11:15 The road to adoption of ISO 20022 in the USA Conference Room 5
12:45-13:45 The World Payments Report 2016: Transforming transaction banking in the digital world Conference Room 5
12:45-13:45 Efficient working capital in a global and real-time payment world Conference Room 4
15:30-16:30 Transforming operating models. How T2S is reshaping the supply chain for securities services in Europe. Workshop B
15:30-16:30 Is it time for global financial market infrastructures to do more? Conference Room 4
15:30-16:30 After the Brexit, what's next: A BRICS-it towards a multilateral financial system? Conference Room 5

OPEN THEATRE
10:00-10:30 ACI Worldwide: Case studies in faster payments - Two perspectives Open Theatre 1
10:00-10:30 IHS Markit: Collaborating to transform regulatory burden into strategic advantage Open Theatre 2
10:45-11:15 Accuity: Focusing on customer growth: Opportunities driven by PSD2 Open Theatre 1
10:45-11:15 Murex: Programmable capital markets Open Theatre 2
11:30-12:00 INTIX: Turning financial messaging data into business profit - The new challenge for financial institutions Open Theatre 1
11:30-12:00 Nucleus Software: Digitisation can help you compete / collaborate with the FinTechs – But how do you become a digital bank? Open Theatre 2
12:15-12:45 Smartstream Technologies: Why should a data management utility matter to you? Open Theatre 1
12:15-12:45 Ernst & Young: Capital Markets: Innovation and the FinTech landscape - How collaboration with FinTechs can transform investment banking Open Theatre 2
14:00-14:30 SIX Securities Services: Welcome to Switzerland, dear Renminbi! Open Theatre 1
14:00-14:30 Open Text: Client and counterparty digital on-boarding: Accelerating time to revenue Open Theatre 2
14:45-15:15 Infor: Transformation starts here - How to build strong commercial sales for your bank Open Theatre 1
14:45-15:15 Intellect Design: Tomorrow's transaction banking - Context is king Open Theatre 2
15:30-16:00 D+H: Blockchain technology: The way forward in payments? Open Theatre 1
15:30-16:00 The value of instant – Dovetail/Finextra 2016 global payments survey Open Theatre 2
16:15-16:45 PPI AG - Instant payments - Impact for processes and IT Open Theatre 1
16:15-16:45 Appian: Digital strategies: Path to transformation Open Theatre 2
17:00-17:30 Tata Consultancy Services – TCS BaNCS: The future of custody Open Theatre 1
17:00-17:30 Bank J. Safra Sarasin Ltd: Creating performance and impact with sustainability Open Theatre 2

SWIFT AUDITORIUM
09:30-10:15 Eagerly awaited: The first results from the global payments innovation initiative pilot SWIFT Auditorium
10:30-11:15 Business Intelligence that gives you the edge in an evolving market SWIFT Auditorium
13:00-13:45 Foster your Sanctions, KYC and AML compliance processes leveraging SWIFT Compliance Analytics SWIFT Auditorium
15:30-16:15 Are your Sanctions Filters working? Sanctions Testing helps you gain assurance, insight and validation of your watchlist filtering environment SWIFT Auditorium
16:30-17:15 SWIFT's intraday liquidity offering, a key service to comply with BCBS 248 and to optimise your liquidity SWIFT Auditorium

SWIFT LAB
09:30-10:00 Get insights into SWIFT products: Latest methods to secure the link between applications and Alliance interfaces SWIFT Lab
10:10-10:40 Discover R&D@SWIFT: Recent security evolution of SWIFT's Interface SWIFT Lab
10:45-11:15 Get insights into SWIFT products: Combining Alliance Lite2 with SWIFT Sanctions Screening SWIFT Lab
13:00-13:30 Talk over lunch: Digitising your organisation, a way to incentivise innovation? Come and hear the NEXEN initiative carried out by BNY Mellon SWIFT Lab
15:15-16:15 Discover R&D@SWIFT: Bringing alive the SWIFT gpi payments Tracker and Observer SWIFT Lab
16:30-17:00 Get insights into SWIFT products: Business Intelligence (Watch) for Banking SWIFT Lab

Sibos week at a glance

WEDNESDAY 28 SEPTEMBER

BIG ISSUE DEBATE / PLENARY
11:30-12:30 Cognitive business and the future of financial services Plenary

BANKING
09:00-10:00 Blockchain and correspondent banking – The way to go? Conference Room 2
09:00-10:00 Towards a single platform for all payments... Conference Room 3
10:15-11:15 The ultimate corporate wish list Conference Room 2
14:00-15:00 How can banks help corporates grow their business? Conference Room 2
15:30-16:30 Reinventing correspondent banking: Where next? Conference Room 3
15:30-16:30 How can technology help in treasury strategy? Conference Room 2

SECURITIES
14:00-15:00 Innovation in CSD space: What about distributed ledger technology? Conference Room 3

COMPLIANCE
09:00-10:00 Machine learning – The future of compliance? Conference Room 1
10:15-11:15 Utilising compliance data assets to generate new business opportunities Conference Room 1
14:00-15:00 Fraud and AML compliance – Time for a joined-up approach? Conference Room 1

CULTURE
09:00-10:00 Education: Cybersecurity 101 - Outwitting ingenious attackers Conference Room 5
10:15-11:15 DevOps – Continuous delivery: Hype vs reality Conference Room 3
10:15-11:15 Unconscious bias awareness training is hot, but the outcome is not! How can we design to encourage inclusive behaviour ? Conference Room 4
14:00-15:30 How to make wiser decisions & future proof your organisations through inclusion of diverse perspectives Workshop B
15:00-17:00 Cyber crisis management workshop Workshop A
15:30-16:30 Behaviour and culture under the spotlight Conference Room 1

STANDARDS FORUM
09:15-10:00 ISO 20022 harmonisation programme – Theory becomes practice Standards Forum
10:00-10:15 ISO 20022 harmonisation charter signing ceremony Standards Forum
10:30-11:15 ISO 20022 market practice developments Standards Forum
13:00-13:45 The corporate debate: Banks should stop differentiating non-competitive services Standards Forum
14:00-14:45 From practice to performance – ISO 20022 implementation planning in payments initiatives Standards Forum
15:00-15:45 From practice to performance – ISO 20022 implementation planning in securities initiatives Standards Forum
16:00-16:45 ISO 20022 - An end-to-end success story Standards Forum

INNOTRIBE
09:00-09:30 Innotribe day opening and Startup Challenge for Latin America Innotribe
09:30-10:15 The future show live Innotribe
10:30-11:15 Digital ethics Innotribe
12:45-13:45 FinTech hubs - Americas Innotribe
14:00-15:00 AI for financial services Innotribe
15:15-16:00 Innovation in cybersecurity: Innovative defences to innovative attacks Innotribe
16:00-16:45 Thingclash Innotribe
17:00-17:30 Innotribe day closing (Man-machine, Day 3) Innotribe

SWIFT INSTITUTE
09:30-10:00 New dynamics of the FinTech talent pipeline SWIFT Stand
10:15-10:45 Business leaders - Think cyber SWIFT Stand
14:00-14:30 SWIFT Institute University Challenge 2016 SWIFT Stand
14:30-15:00 Mobile banking revolution: M-PESA's impact on Africa and beyond SWIFT Stand
16:30-17:15 Open APIs and the transformation of banking SWIFT Stand

COMMUNITY
09:00-10:00 Digital disruption in securities services: Fear and courage Workshop B
09:00-10:00 Preparing for instant payments in a digital economy Conference Room 4
10:15-11:15 Fast, faster, instant Workshop A
10:15-11:15 How much does it cost to pay? Measuring the costs of retail payments Conference Room 5
14:00-15:00 Real-time payments across the pond Conference Room 4
15:30-16:30 Strategies for improving the payment and settlement infrastructures adopting advanced and proven technologies including international standards - Challenges and opportunities aiming at year 2020 and beyond Conference Room 5
15:30-16:30 International payments framework - Global payments simplified Conference Room 4

OPEN THEATRE
10:00-10:30 McKinsey & Company: McKinsey on innovation driving change in transaction banking Open Theatre 1
10:00-10:30 Accenture: Transforming capital markets with utilities and technology Open Theatre 2
10:45-11:15 FircoSoft: Anticipating the regulator: Building compliance systems that are regulator ready Open Theatre 1
10:45-11:15 Oracle: Achieving profitable deal management in transaction banking, investor services and payment processing Open Theatre 2
11:30-12:00 FIS: Flavours of fast - Immediate payments & open API banking: The perfect storm Open Theatre 1
11:30-12:00 Axway: Complying to PSD2 and other open banking regulations or leverage compliance to create new business opportunities? Open Theatre 2
12:15-12:45 Pegasystems Inc.: Evolving your CRM sales & service strategies in the age of digital transformation Open Theatre 1
12:15-12:45 MISYS: Killer FinTech use cases for corporate banking: Client problems looking for solutions Open Theatre 2
14:00-14:30 Microsoft: Business insight with machine learning and artificial intelligence Open Theatre 1
14:00-14:30 Sopra Banking Software: Instant payments - What can be the overlay services of tomorrow in a real time world and where are the benefits for banks? Open Theatre 2
14:45-15:15 Clearstream Banking: Solutions for making markets safer via increased initial margin requirements Open Theatre 1
15:30-16:00 Allevo: The trendsetter bank Open Theatre 1
15:30-16:00 AxiomSL: Staying ahead of the regulatory compliance curve: Focusing on firms' sustainability and profitability with all of the regulatory compliance controls in place Open Theatre 2
16:15-16:45 ICBC: The outlook of China's capital market opening up Open Theatre 1
16:15-16:45 TAS Group: Going beyond BCBS248: From End-of-Day to Intraday Liquidity Management Open Theatre 2
17:00-17:30 Sumitomo Mitsui Banking Corporation: Gateway to Asia Open Theatre 1
17:00-17:30 BNP Paribas: Biz hackathon fever Open Theatre 2

SWIFT AUDITORIUM
09:30-10:15 What's new for CSDs and Securities players? SWIFT Auditorium
10:30-11:15 Comply with SEPA regulation now and discover how SWIFTRef brings entity data identification to the next level SWIFT Auditorium
13:00-13:45 Introducing Name Screening: Screening your customers and suppliers just got easier SWIFT Auditorium
14:00-14:45 SWIFT solutions for High-Value Payment Systems Resilience SWIFT Auditorium
15:30-16:15 The KYC Registry – A Global Experience SWIFT Auditorium
16:30-17:15 SWIFT for Securities: New solutions to industry challenges SWIFT Auditorium

SWIFT LAB
09:30-10:00 Get insights into SWIFT products: Business Intelligence (Watch) for Securities SWIFT Lab
10:10-10:40 Discover R&D@SWIFT: Distributed Ledger Technology SWIFT Lab
10:45-11:15 Discover R&D@SWIFT: Bringing alive the SWIFT gpi payments Tracker and Observer SWIFT Lab
13:00-13:30 Talk over lunch: At the end, innovation is all about change management SWIFT Lab
14:00-14:30 Get insights into SWIFT products: Latest methods to secure the link between applications and Alliance interfaces SWIFT Lab
14:45-15:15 Get insights into SWIFT products: What's up in SWIFTRef? SWIFT Lab
15:30-16:00 Get insights into SWIFT products: Business Intelligence (Scope) for Intraday Liquidity Reporting SWIFT Lab
16:15-16:45 Discover R&D@SWIFT: Name Screening online SWIFT Lab

THURSDAY 29 SEPTEMBER

BIG ISSUE DEBATE / PLENARY
11:30-12:30 Are disruptive innovations transforming the financial services landscape, or are we simply in the middle of a new technology cycle? Plenary

16:30-17:30 Sibos: Closing plenary Plenary

BANKING
09:00-10:00 Real-time liquidity monitoring and management: Do banks still have the choice? Conference Room 3
10:15-11:15 Trade digitisation: Where are we now? Conference Room 2
10:15-11:15 Where is the real-time payments business case? Workshop B
10:15-11:15 Enhancing the cross-border payments experience in B2B Workshop A
14:00-15:00 PSD2 - The opportunity to reinvent the online payment and banking experience Conference Room 1

SECURITIES
09:00-10:00 Data management - The quest of the endless journey Conference Room 2

CULTURE
09:00-10:00 Learning from FinTech – Can we fail fast, and learn fast? Conference Room 1
09:00-10:00 Education: Cyber 101 Workshop A
10:15-11:15 The spectre of cyber threats – How can the industry fight back? Conference Room 3
14:00-15:00 Emerging markets: Mobile money and financial inclusion Conference Room 3
14:00-16:00 Cyber crisis management workshop Workshop A

STANDARDS FORUM
09:30-10:30 On the drawing board – Data ethics in the internet of financial things, with Scott Smith Standards Forum
10:30-11:15 Reference data and semantics – New challenges and solutions for standardisers Standards Forum
13:00-14:00 ISO 20022 for architects / ISO 20022 for beginners Standards Forum
14:15-15:00 Standards Forum close Standards Forum

INNOTRIBE
09:00-09:30 Innotribe day opening and Industry Challenge on Compliance Innotribe
09:30-11:15 Forward compatibility Innotribe
12:45-13:45 FinTech hubs - APAC Innotribe
14:00-15:00 DLT and cybersecurity: Sibos week wrap-up Innotribe
15:15-16:15 Innotribe closing keynote: Platform cooperativism Innotribe

SWIFT INSTITUTE
10:15-10:45 Bridging the gap: Europe vs America AML / CTF and data privacy law SWIFT Stand

COMMUNITY
09:00-10:00 Capital markets: Big data, big deal Conference Room 4
10:15-11:15 How to succeed in new ways of working Conference Room 5
10:15-11:15 Financial centres outside of the EU – What can the UK learn from Switzerland Conference Room 1
14:00-15:00 New developments in the RMB's road to internationalisation Conference Room 5
14:00-15:00 Towards a fully digitised economy - Why the Nordics are leading the race Conference Room 4

OPEN THEATRE
10:00-10:30 EastNets: Financial crime risk mitigation: Beyond conventional programmes Open Theatre 1
10:00-10:30 Equiniti: RegTech in an increasingly digital world Open Theatre 2
10:45-11:15 ECS Fin Inc.: Reaping the benefits of an efficient payment system Open Theatre 1
10:45-11:15 LexisNexis Risk Solutions: Bitcoin identities unmasked, P2P payments in Africa, and 14,000 unbankable families get banked: Real-world efforts stimulating financial inclusion and transparency Open Theatre 2
11:30-12:00 SunTec Business Solutions: Contextual deals in the age of rapidly changing customer preferences – Are banks ready yet? Open Theatre 1
11:30-12:00 NTT DATA - Getronics: The present and future of transaction banking Open Theatre 2
12:15-12:45 National Settlement Depository: The evolution of corporate actions processing in Russia Open Theatre 1
12:15-12:45 CGI: Maximising ROI in payments modernisation Open Theatre 2
14:00-14:30 PayCommerce: Join the cross border payments network for real-time cross-border payments and acceptance. Open Theatre 1
14:00-14:30 Zafin: Transaction banking in 2020: Four raw ingredients, one successful recipe Open Theatre 2
14:45-15:15 Profile Software: A FinTech approach for Alternative Finance Open Theatre 1
14:45-15:15 Syracom: Faster, quicker, real time: Payments go instant Open Theatre 2

SWIFT AUDITORIUM
09:30-10:15 Corporate Treasury Perspectives – Overcoming increasing complexity SWIFT Auditorium
10:30-11:15 Increasing agility and reducing costs – Embrace the SWIFT Community Cloud! SWIFT Auditorium
13:00-13:45 Bringing down barriers – Simpler corporates onboarding with MyStandards SWIFT Auditorium
14:30-15:15 SWIFTSmart: Bridging the knowledge gap SWIFT Auditorium
15:30-16:15 SWIFT Customer Security Programme SWIFT Auditorium

SWIFT LAB
09:30-10:00 Get insights into SWIFT products: The KYC Registry & KYC Adverse Media SWIFT Lab
10:10-10:40 Discover R&D@SWIFT: Recent security evolution of SWIFT's Interface SWIFT Lab
10:45-11:15 Discover R&D@SWIFT: Linking Bankers World Online with The KYC Registry SWIFT Lab
13:00-13:45 Get insights into SWIFT products: Market Infrastructure Resiliency Service (MIRS) SWIFT Lab
14:00-14:30 Get insights into SWIFT products: The combination of BELLIN's treasury management system and Alliance Lite2 SWIFT Lab
14:45-15:15 Get insights into SWIFT products: Discover the corporate experience on SWIFT SWIFT Lab
15:30-16:00 Get insights into SWIFT products: Corporates onboarding made easy with MyStandards SWIFT Lab

Pause for thought on the road to integration

Market Infrastructures #Standards Forum #Payments

Much progress has been made in recent years to improve harmonisation and efficiency in Europe's financial markets – but many further challenges lie ahead.

Efforts to harmonise the rules governing securities market infrastructures and payment utilities are fast gaining traction in Europe, driven in part by the Capital Markets Union (CMU), a European Commission-led project to reduce reliance on bank lending and to promote integrated, high-quality and low-cost financial services across the bloc.

A key aim of CMU is to address any unintended consequences and unnecessary burdens arising from recent post-crisis regulation. For example, the European Market Infrastructure Regulation (EMIR) requires over-the-counter (OTC) derivatives to be cleared through central counterparties (CCPs), while exchange-traded and OTC derivatives must be reported to trade repositories, adding considerably to the administrative obligations of smaller players, without in some observers' views increasing regulators' oversight of systemic risk. In May, the then-commissioner responsible for CMU, Lord Hill, said clearing thresholds and reporting requirements could be eased for smaller, less-frequent market participants, while maintaining the regulation's core objectives. "It should be possible to make EMIR more proportionate and continue to mitigate systemic risk in our derivative markets," he said.

Other problems stem from the unaligned requirements of separate regulatory initiatives, according to Godfried De Vidts, director of European Affairs at ICAP and chairman of ICMA's European Repo and Collateral Committee. "CMU needs to address a number of flaws that have occurred through post-crisis regulation of the post-trade space. EMIR obliges derivatives clearing members and their clients to post high-grade collateral to CCPs as initial margin and cash as variation margin. Basel III, however, subjects clearing banks to heightened capital requirements which has prompted some firms to exit the business altogether. Some buy-side firms may therefore look towards the repo market [to source high-grade collateral], but Basel III's Net Stable Funding Ratio (NSFR) obligations make this prohibitively expensive and capital-intensive [for sell-side counterparts]. These are the sorts of issues CMU ought to be addressing," he explains.

Post-trade harmonisation

Industry experts routinely point out that regulations such as the Central Securities Depository Regulation (CSDR) have effected harmonisation across securities market infrastructures ahead of CMU. CSDR required European markets to transition towards a T+2 settlement timeframe ahead of the introduction of TARGET2-Securities (T2S).

Furthermore, the European Post Trade Forum (EPTF), an industry group comprising a number of industry associations including the European Central Securities Depositories Association, is working towards attaining greater harmonisation of post-trade securities market processes by removal of barriers highlighted in the 2001 Giovannini Group report.

"Most of the private sector barriers have been removed as a result of CSDR, T2S and EMIR. But public sector issues like conflicts of law and divergences in securities ownership law and structures remain. The EPTF working group is in its early stages of identifying issues that could be addressed through CMU. In addition, the Commission is looking again at best practice and codes of conduct for the relief-at-source from withholding taxes," says Paul Symons, head of government relations at Euroclear.

Many believe systemic stability will be enhanced if CMU can harmonise rules around securities ownership and insolvency law. In particular, harmonisation

of insolvency law could reduce risk for depositaries in the event of having to reclaim assets from a failed custodian or sub-custodian under their UCITS V and Alternative Investment Fund Managers Directive obligations.

> **It is more straightforward for a bank to enter the FinTech space, than for FinTech providers to enter banking.**
>
> **Shahrokh Moinian,** head of cash management for corporates, Deutsche Bank

New era for payments?

Efforts towards European payments harmonisation have been on-going for some time. The first iteration of the Payment Services Directive (PSD) entered the fray in 2007, and is being updated through PSD2, due to be enacted in 2018. As part of its mandate to establish a value-added, competitive, yet harmonised payments environment, PSD2 introduces two new categories of third-party payment providers – account information service providers (AISP) and payment initiation service providers (PISP).

The new directive, covering both wholesale and retail payment services, provides comprehensive rules detailing how these third-party providers should interact with account-servicing payment services providers, as well as provisions on card surcharges both online and in shops, transparency and security around initiation and processing of electronic payments and customers' financial data. It is hoped that PSD2 will simplify online payments and reduce costs for merchants, whilst corporates and other entities that work with multiple bank providers will enjoy increased transparency and control over their account balances through the aggregation services offered by AISPs. The rules could also help new entrants come to market and compete with established providers, or offer new services that help European consumers better manage their bank accounts, by tracking spending habits across multiple accounts, for example.

"PSD2 will bring new players into the market," says Shahrokh Moinian, head of cash management for corporates at Deutsche Bank. "Some banks may view this as a threat, but we see it as an opportunity. It will encourage banks to enhance their technology and become third-party providers and consolidators. It is more straightforward for a bank to enter the FinTech space, than for FinTech providers to enter banking."

> **Public sector issues like conflicts of law and divergences in securities ownership law and structures remain.**
>
> **Paul Symons,** head of government relations, Euroclear

Reporting standards

Regulators are not just legislating to encourage greater standardisation of financial services in Europe. They are embracing the tools and mechanisms of standardisation too – by leveraging common messaging standards in the post-crisis reconstruction of Europe's regulatory framework. Huge volumes of regulatory requirements continue to be enacted in response to the global financial crisis. As well as the initiatives mentioned above, the revised Markets in Financial Instruments Directive (MiFID II) subjects financial institutions including investment managers to new pre- and post-trade reporting obligations, as well as transactional reporting, starting 2018.

> **CMU needs to address a number of flaws that have occurred through post-crisis regulation of the post-trade space.**
>
> **Godfried De Vidts,** director of European Affairs, ICAP

To facilitate increasingly detailed reporting of European securities transactions under MiFID II, the European Securities and Markets Authority (ESMA) has co-opted the ISO 20022 universal framework for financial message standards. Globally, ISO standards for legal entity identification (LEI), instruments (ISIN) and market infrastructures (MIC), are increasingly widely used to collect consistent and unambiguous data. As both regulators and end-clients seek greater transparency, efficiency and oversight of transactions across the financial markets, many are calling for even greater use of message standards to be deployed in support of industry reforms. For example, the Committee on Payments and Market Infrastructures' July 2016 report – 'Correspondent Banking' – advocated greater use of LEIs in correspondent banking and in payment messages, as well as making recommendations on the role of know-your-customer utilities by correspondent banks.

"Standardising regulatory reporting messaging with the ISO 20022 methodology will help national competent authorities attain greater clarity from the data they collect from financial institutions directly or through trade repositories. If the ISO 20022 standard is adopted on a global basis, it will allow international regulators to aggregate and compare reported data across regulatory regimes. This will allow regulators to better monitor and analyse systemic risks in financial markets," says Paul Janssens, LEI programme director at SWIFT. ■

TO LEARN MORE ...

Single market and capital markets union – The future role of financial market infrastructures
Monday 26 September – 15:30-16:30

Standards and regulatory reform
Monday 26 September – 15:00-15:45

Potential unlimited; destination unknown

#Technology #Blockchain #Payments

This year's Sibos provides both a beginner's and an adopter's guide to distributed ledger technology.

> **DLT is building a reputation in its own right with live applications in areas such as insurance and clinical trials.**
>
> **Michael Mainelli,** executive chairman, Z/Yen

Having first hit the headlines as the operating model supporting the bitcoin cryptocurrency, blockchain is now being analysed and tested across financial services for its potential to boost efficiency and transparency across a number of currently tangled and sub-optimal processes.

The concept of blockchain is relatively straightforward. It is a peer-to-peer, decentralised database or distributed ledger technology (DLT) that cannot be manipulated by counterparties and to which transactions of any type can be reported. Because blockchain is unalterable and real time, it could provide an answer to many of the administrative headaches that have challenged the securities and payments value chains. Proponents of the technology occasionally go as far as arguing it could completely disintermediate market infrastructures such as central counterparty clearing houses (CCPs), central securities depositories (CSDs) and a fair chunk of the business undertaken by global custodian banks. Others feel it could make know-your-client (KYC) and anti-money laundering (AML) checks less onerous.

The potential ramifications might appear endless, but some believe the widely-publicised threat of disruption and disintermediation posed by blockchain to incumbent market infrastructure operators is over-stated. David Treat, global blockchain lead at Accenture's capital markets practice, predicts evolution, not revolution.

"Certain proponents of blockchain have said that the technology could disintermediate securities clearing and settlement market infrastructures, but most have come to realise that it is not that simple. For example, one fundamental role of a CCP is to reduce systemic risk when trades go wrong by providing a backstop, which current blockchain solutions do not provide. With respect to CSDs, blockchain technology can provide a single 'source of truth' for securities ownership. However, it does not yet address the roles CSDs play for corporate actions, dividend payments, shareholder voting, and so forth," he explains.

Treat expects the market to follow "the path of least resistance" from an implementation and regulatory perspective, incorporating blockchain technology into existing players' platforms and services to generate significant value, while maintaining their key role. "In order for this to happen, the infrastructure providers will need to continue investing and evolving as they have been over the past year," he says.

> **Governance must be at the heart of the blockchain discussion.**
>
> **Justin Chapman,** global head of market advocacy and innovation research, Northern Trust

> **Certain proponents have said blockchain could disintermediate market infrastructures – but it is not that simple.**
>
> **David Treat,** global blockchain lead, capital markets practice, Accenture

Greater transparency

"Blockchain has huge potential in the payments and securities space. By providing an immutable record of data, efficiencies and assurance can be applied to any transaction or data point. KYC and AML, for example, could become much easier. Other benefits – particularly for regulators – would be that it would enable greater transparency, potentially removing the need for bilateral reporting, which in turn would deliver a more robust and efficient solution for the regulator and the industry," says Justin Chapman, global head of market advocacy and innovation research at Northern Trust.

Proof of concept

Blockchain is still in a proof of concept stage, in terms of its deployment in existing financial markets' process chains, and a number of open questions do need to be answered. A position paper published by SWIFT identified eight core issues about which market participants require further assurance before industry-wide adoption of the technology can be realised: robust governance; data controls; compliance with regulation; standardisation; framework identification; security and cyber-defence; reliability; and scalability.

The great leaps forward in process efficiency in the financial markets have largely been driven by broad adoption of common standards and protocols over proprietary approaches. Purists hope the blockchain will become a public utility, driven forward by collective user demand. However, various technology firms and individual financial institutions are concurrently developing their own internal blockchains or testing the technology to meet very specific, niche requirements.

A paper by the Depository Trust & Clearing Corporation (DTCC), the US post-trade securities utility, highlighted that such fragmentation could result in a lack of interoperability, posing possible challenges around achieving standardisation. Many fear the technology is being developed out of synch with industry-wide standards. On the other hand, collaborative efforts led by the R3 Consortium and Hyperledger Project have been initiated to close any gaps on standards that may emerge. Regulators are monitoring the development of the technology too, not always taking compatible positions. Cross-border cooperation is likely to be required amongst regulators if the potential benefits of blockchain are to be fully realised, experts suggest. "Governance will be key and must be at the heart of the blockchain discussion," says Northern Trust's Chapman.

Changing perceptions

As the SWIFT paper suggests, scalability is a concern for many. The size of the payments and securities settlement industries, and the complexity of their transactions and counterparty requirements, is well beyond that of bitcoin. "Much larger datasets will need to be handled, if any core part of the capital markets system is to be replaced," read a paper on blockchain published by Euroclear and Oliver Wyman. Another consideration is how blockchain will interact with existing technology. Upgrades to technology are prone to unforeseen complications, and any integration of blockchain will need to be thoughtfully undertaken and carefully monitored.

From a security perspective, industry participants will not subscribe to a system which fails to meet best practice in terms of protection against cyber-security threats, particularly given the sensitivity of the data which blockchain may be required to hold. In recent years, regulators globally have been prioritising cyber-security and questioning market participants more rigorously about the defensive policies and processes they have in place.

Professor Michael Mainelli, executive chairman at Z/Yen, a commercial think-tank and venture firm, says blockchain may also need to overcome reputational issues. "Historically, a belief that systems running concurrently across multiple machines are insecure has significantly hindered DLT's acceptance. This was disproved by bitcoin. But DLT and blockchain are now associated with bitcoin, which unfortunately has a negative public perception, and with Ethereum [a blockchain platform for cloud-based financial agreements], which has had significant governance issues. But DLT is building a reputation in its own right with live applications in areas such as insurance and clinical trials," says Mainelli, who will be providing Sibos delegates with a primer on the history and potential applications of DLT.

In all likelihood, the benefits of blockchain on financial market processes will not be felt before Sibos 2017 in Toronto. Indeed, some experts estimate its roll out could take anywhere between five and ten years, depending on ease of migration from legacy platforms. "The full impact of blockchain on capital markets is still not certain and it will likely be some time before we fully know. Areas such as health records, electoral voting and even musical rights could also see themselves changed by this technology," comments Chapman. ■

TO LEARN MORE ...

Education: Blockchain 101 – An introduction to mutual distributed ledgers without the cryptocurrencies
Monday 26 September – 09:00-10:00

Blockchain 2020 – What next for adoption by the financial industry?
Monday 26 September – 15:30-16:30

Alive to the threat

#Technology
#Market Infrastructures
#Cyber-security

Regulators, market infrastructures and financial institutions are constantly reviewing best practice to improve cyber-security.

> **Attackers are learning from each other, and are trading, re-using and automating their tool sets.**
>
> **Stephen Scharf,** chief security officer, DTCC

The cyber-attack on the central bank of Bangladesh in February 2016 was a watershed moment for the financial industry.

Both banks and the financial market infrastructures (FMIs) that connect them are potential targets of cyber-attacks. While attacks even on large banks do not necessarily trigger a greater systemic event, a breach of cyber-security at FMI level has the potential to create even bigger problems, because of their connections to many other entities.

The Bangladesh attack heightened awareness of threats to the financial community and, particularly, to customers of FMIs, underscoring the importance of industry coordination as well as deployment of new technologies in cyber-defence strategies.

But Stephen Scharf, chief security officer at the Depository Trust & Clearing Corporation (DTCC), a post-trade securities market infrastructure provider, says existing practices and disciplines remain critical to effective defence. "While innovative ways of dealing with cyber-threats are emerging, they shouldn't be adopted at the expense of the basic but essential components of a security portfolio. Proportionally, these basic measures probably have a greater impact on successful protection of any organisation," he says.

Adrian Nish, head of threat intelligence at BAE Systems' cyber-defence division, says that while a latent threat is now very real, other factors remain unknown. "People looking at both threat actors and security around these systems foresaw the potential for these attacks, so it is the realisation I think of those concerns," he says. "How the attackers have come to recognise that [potential] is probably a question that, unless we can talk to them directly, we probably won't find out."

Industry guidance

In recognition of the threat to FMIs, the Committee on Payments and Market Infrastructures (CPMI) and the board of the International Organization of Securities Commissions (IOSCO) issued its 'Guidance on cyber-resilience for financial market infrastructures' in June 2016, following a 2015 consultation with the industry.

It aims to create a baseline level of confidence within the

Alive to the threat

continued from page 14

“We have to build up our predictive capability by leveraging multiple sources of intelligence.

Haster Tang, CEO, Hong Kong Interbank Clearing

industry, and to provide senior management at FMI operators with a shared understanding of the undertakings required to develop and maintain cyber-resilience. “I appreciate the CPMI-IOSCO principles to provide guidelines, which are considered helpful in raising the industry’s and FMIs’ awareness; the challenges however lie in the interpretation of the guidelines and how best we can achieve their intended outcomes,” says Haster Tang, CEO at Hong Kong Interbank Clearing Limited (HKICL). “The world is highly interconnected. We provide not only local but also cross-border services because that’s the nature of the international financial market. So when we set our cyber-resilience strategy, we decided we had to comply with local regulations and benchmark against global standards as well.”

Providing a single set of rules for a diverse set of market infrastructures is inevitably challenging, as specific actions or requirements for one type of business may be irrelevant to another with different functions. One CPMI-IOSCO proposal that has caught the attention of many is the aim to achieve business resumption within two hours. “Financial stability may depend on the ability of an FMI to settle obligations when they are due, at a minimum by the end of the value date ... even in the case of extreme but plausible scenarios,” the CPMI-IOSCO guidelines assert.

A number of interested parties have suggested speed of recovery must be balanced with certainty that the threat has been eliminated. Responding to the CPMI-IOSCO consultation, Peter De Koninck, chief auditor at SWIFT, observed “... there are also scenarios for which this recovery time objective is unrealistic, particularly in complex cyber-scenarios ... In some instances it may even be an undesirable objective, as reopening service too quickly could promulgate a cyber-issue through the financial system.”

HKICL’s Tang must also comply with prescriptive local guidance from the firm’s local regulator, the Hong Kong Monetary Authority (HKMA). “The most challenging area of the HKMA guidance is the predicting of cyber-attacks,” she says. “We have to build up our predictive capability by leveraging multiple sources of intelligence, correlated log analysis, alerts, internal traffic flows, and geopolitical events to predict potential future attacks and attack trends. The HKMA has also highlighted third-party risk management. When we go outside of the company and ask for service from a vendor, how do we manage the risk of a third party? That is another challenge.”

Evolving threats

A key challenge for cyber-security professions across all industries is the constantly evolving nature of threats, both in terms of perpetrators and tactics, increasingly fuelled by a growing level of coordination and sharing. As the DTCC’s Scharf observes, tool sets are becoming available to people with lower skills, enabling them to perpetrate cyber-crimes previously only carried out by more sophisticated, well-resourced players.

“That’s changed the dynamic a little bit,” he says. “Now that the group of malicious actors has broadened, attackers are learning from each other, and are trading, re-using and automating their tool sets. All of that exponentially raises the amount of activity that could be launched against financial institutions.”

Nish suggests that coordination between FMIs to share information on risks and threats is of paramount importance at a time when it is becoming increasingly clear that cyber-criminals are pooling resources.

“Traditionally, we are used to investigating cases where these actors are getting into networks or stealing information,” he says. “What we discovered by investigating the Bangladesh Bank attack was that the specific code that was used in that was linked to a previous attack associated with a nation state.”

Like other cyber-security experts, Nish is wary of drawing too many conclusions from such links. It could be, he says, that experienced actors are now working for somebody else, or that the same team is rewriting the code for different goals, or that they work for the same boss whose motivation has shifted. Continued efforts to share information and experience across the financial community remains critical to the development of tools and strategies to protect the industry and its clients. ■

TO LEARN MORE ...

Cyber-resilience in a changing world
Monday 26 September – 09:00-10:00

Closer to the customer

#Technology #Data #Blockchain

Understanding customer behaviour is more critical than ever, as banks prepare for their digital transformation.

According to the IDC research group's 'Financial Insights Worldwide IT Spending Guide', published in April, the financial services sector's IT spending will reach US$480 billion worldwide in 2016. The largest spend of that total is on banking technology, accounting for more than US$275 billion worldwide; at 4.5%, it is also the fastest growing sector.

Financial institutions depend on technology more than ever to handle the increasing complexities of business, to comply with increasingly detailed regulatory requirements and to satisfy fast-evolving customer demand for more convenience and speed. The reliance on technology to deliver financial services has given rise to the FinTech industry, which attracted around US$5.7 billion of investment in privately-run companies during Q1 2016 globally, according to CB Insights' May 2016 report, 'Pulse of FinTech'. US$4.9 billion of that amount was invested in venture capital-backed FinTech companies, a 96% jump from the same quarter a year ago.

So significant is FinTech, it was a key theme throughout this year's World Economic Forum meeting in Davos. "In 2014, when we came up with a new initiative to explore innovation in financial services and how it will transform the structure of the industry, there was a tepid response," says Jesse McWaters, project lead, disruptive innovation in financial services at the World Economic Forum. "Since that time the world has changed; financial technology was one of the hottest topics during the Davos meeting in 2016."

Profitable, efficient and relevant

In some respects today's FinTech trends, including distributed ledger technology, data aggregation and real-time technologies, are just the latest chapter of a story that stretches back to automated teller machines, book-entry trade settlement and payments cards. The common themes are disruption and transformation of existing practices and business models,

> **"Banks have not had the right tools and approaches to help us design products and services that put customers at the centre of what we do.**
>
> **Jonathan Davey,** executive general manager, Nab Labs, National Australia Bank

and a desire to innovate in order to win market share through improved customer services.

"Banks should keep in mind that they need to be profitable, efficient and relevant to their clients. Digital transformation should be wrapped around these three themes," says Leda Glyptis, director, Sapient.

Their task of transformation is not helped by the fact that incumbent banks can feel somewhat besieged by FinTech firms, worried that large parts of their franchise are being eaten away by rivals with inherent competitive advantages. The latter are often nimbler at responding to changing customer demands as they do not have legacy systems and are not as heavily regulated. Rightly or wrongly, FinTechs are perceived to be better than banks at anticipating customer needs.

However, many banks have responded, some by investing in FinTechs or creating their own innovation labs. "For several decades, banks and other organisations have spoken about the

importance of 'customer-centricity', but we have not had the right tools and approaches to help us design products and services that put customers at the centre of what we do," says Jonathan Davey, executive general manager at National Australia Bank's Nab Labs. Created 18 months ago, Nab Labs is a centre of excellence for innovation at the Australian bank. Core aims include ensuring the bank understands technology-driven and user behaviour changes that are affecting the financial industry. Nab Labs maintains a 'human focus' on the design of products and services and takes an experimental, iterative approach to implementing new products and services. "We believe differentiation lies in the ability to execute on customer needs, with a firm commercial focus. We are transforming our business so we can deliver a better customer experience that resonates with consumers and businesses."

> **"Transformation does not rest on one technology alone.**
>
> **Leda Glyptis,** director, Sapient

Ready to jump?

One of the main changes in customer behaviour that banks are now grappling with is the use of mobile devices, says Davey. "Five years ago, 500,000 users logged on to National Australia Bank's internet banking service daily. About 99% of those log-ins were from desktop computers. Now, we are seeing more than 2 million log-ins daily, 72% of which come from mobile devices."

But Bruce Weber, dean and professor of business administration at the Lerner College of Business & Economics at the University of Delaware, says banks still do not pay enough attention to adoption behaviour and the issues that can prevent adoption of new services. "There can be fantastic technology or software in a lab environment, but it often isn't successful in reality," he says. "Customers don't always jump on board as fast as the creators of the technology imagine."

Before a bank adds a particular product or service, it should analyse how the technology performs in relation to existing products and services and also how customers might react when they face the adoption decision. "More analysis needs to be done on why a customer decides to stop using an old system and adopt a new one," he says.

McWaters adds that another challenge for financial institutions is to chart an effective course that navigates the risks associated with innovation while pursuing new revenue opportunities. Legacy systems limit incumbents' ability to integrate new ideas and practices, he asserts. However, McWaters believes FinTechs can help banks gain the customer-centricity many have sought to recapture over the past decade. "FinTechs can take certain processes that were once considered core to financial institutions and centralise them to deliver better efficiency and regulatory compliance," he says.

Sapient's Glyptis believes that no single solution will 'move the needle' in terms of integration of digital capabilities into financial services. "Transformation does not rest on one technology alone, but will include blockchain, artificial intelligence and open APIs for example. These technologies all need to be stitched together. Unfortunately, opportunity has a nasty habit of looking like hard work."

Weighed down

Legacy can also become a significant drag on customer-centric innovation because of the tendency of banks to look at

> **"FinTechs can take certain processes that were once considered core to financial institutions and centralise them to deliver better efficiency.**
>
> **Jesse McWaters,** project lead, disruptive innovation in financial services, World Economic Forum

solutions that have worked for a long time – or took a long time to build – over-emphasising the cost and complexity of changing them. Says Glyptis: "Many financial institutions struggle with the fact that they have a structure, workforce and technology infrastructure that, to them, is fit for purpose. As the environment changes, institutions want to change as little as possible. But in most financial organisations 'little' can be very sizeable."

The effective deployment of technology to deliver sustainable value to customers in the digital economy is as much a cultural challenge for banks as a technological one. But in many ways, the stage is set for both banks and FinTech firms to focus more of their attention on their customers than their operations. Just as the original creation of SWIFT provided both the vital 'plumbing' and a collaborative ethos to the financial services market, the future of financial services will be based on similar shared and standardised service offerings that banks might not necessarily wish to own, for example via the cloud, or developing solutions based on cooperation. "SWIFT is very good at bringing the financial community together, and there are technologies that benefit from communities coming together such as blockchain, data aggregation and APIs," says Glyptis. ■

TO LEARN MORE …

Technology trends in financial services
Monday 26 September – 10:15-11:15

Design and user experience (UX) in banking
Monday 26 September – 10:15-11:15

FinTech: Reshaping banking with co-opetition and disruption
Monday 26 September – 15:30-1600

Facing the future together

#Innotribe #Technology #Blockchain

Walk up and smell the coffee as Innotribe unveils the outcome of its Industry Challenge for securities, and stay for insight, innovation and interactivity.

> **We can reframe the way we look at technology – seeing it not as something that is distinct from us, but as something to be integrated into our own way of thinking.**
>
> **Michell Zappa,** founder, Envisioning

Innotribe's week begins with lights, music, a welcome address and a challenge. The Innotribe stand is a must-see monument – it even out-innovates last year's stand – and the popular Jimmy Monkey baristas are once again serving coffee. At Innotribe's opening and Industry Challenge on securities' session on Monday morning, delegates will gain an overview of the week ahead – four days packed with insight, innovation and interactivity – and share the outcome of the 2016 Industry Challenge for securities. The session – and much of the day will be an interactive and facilitated conversation between speakers and thought leaders, hosted by the first day's anchor, Michell Zappa, founder of 'virtual' research institute Envisioning, a decentralised, multi-disciplinary organisation focused on the study of how technology will shape the future.

Launched this year, SWIFT's Industry Challenge programme is designed to deploy the combined resources of SWIFT, its community and the FinTech industry, to meet challenges presented by different industry sectors. Kevin Johnson, head of Innotribe Innovation Programmes, says: "Our first Industry Challenge, in April, was a Chatham House rule workshop in the securities space. We looked at the life-cycle of a short-dated bond on a blockchain: how does it work; how can all the pieces come together; what different use cases could there be?"

There are five steps to the Industry Challenge process; the fifth is the delivery to market of an enhancement to an existing commercial approach. Except that this time delegates at Innotribe's opening session at Sibos 2016 get to see it first. "Nothing has been announced yet, so we will be making a big splash. At the workshop, we had business customers, FinTech vendors, blockchain start-ups and SWIFT board members in the room. We defined a business challenge, and by the end of the second day, we had a proposal for a three-month proof of concept to execute," says Johnson. So that's the blockchain's application to the securities market sorted out! The Industry Challenge process is designed to reduce the time it takes to address a business challenge from a possible 12 months, down to a two-day workshop. A second Industry Challenge, this time in the compliance space, will be presented at Thursday's Innotribe opening.

Focus on disruption

Innotribe will offer a lot more insight into exciting new initiatives on its opening day. In keeping with the day's overall theme of disruption, delegates will have the opportunity to participate in a game at the 'Emerging technologies for financial services' session. Moderator Zappa explains: "A multitude of technologies are affecting the FinTech sector at large. The key element of the session is our visualisation of Innotribe's research into emerging technologies. We believe it's a good starting point for an exploration of all those technologies and their likely impact."

The visualisation will map around a hundred technologies to different time horizons, showing their various interconnections via the Innotribe stand's state-of-the-art audio-visual capabilities. This is the game: navigation cards will be distributed to delegates showing ten likely impact vectors for each technology (cyber-security is a key emphasis). Speaker Matthew Grabois, head of marketing and communications for the Innovation and Digital Lab at BNP Paribas Securities Services, says: "Our session will be very interactive. The game is a fun way to bring people and technologies together. It will be interesting to see how people engage and what thoughts are shared." Grabois will also bring insights from BNPP's ID Lab on blockchain, big data and artificial intelligence to the session.

The session's interactive approach – indeed, the ethos of Innotribe throughout the week – is intended to foster a spirit of cooperation. In short, the future is a great venture, and we will be most successful if we face it together. Grabois says: "My hope is that people are really forthcoming; the important thing is to focus on where we think we need to move ahead as a community." And it's not just about the technologies; it's what arises from the interplay of technologies. Discussing his expectations for the week at Innotribe, Grabois adds: "There are a lot of different people – start-ups, banks, vendors – talking about how they're employing these technologies, and I think people are going to learn a lot about how to make the transformation in their own companies." As its title suggests, Tuesday's session, 'Organise for complexity', picks up and runs with these themes.

New thinking; new heights

Of course, people are just as much part of the transformation that the future requires as technologies. But simply being aware of the technologies that are coming is not enough. Zappa says, "I want to talk about how to think about technology as a function over time; how to integrate technological thinking into the way we think about how the future might unfold." Using the example of centaur chess – in which humans and machines play together on the same side – he adds, "We can reframe the way we look at technology – seeing it not as something that is distinct from us, but as something to be integrated into our own way of thinking – something we can use to reach new heights."

Zappa will summarise the key themes and learning outcomes at the Day Closing session. "The theme of the day is the different ways of thinking about and using technology," he observes. "I'll talk about some technological principles as well – exponential change and combinatorial evolution. You can combine emerging and existing technologies to create something that does not exist. You can work backwards, and you can also envision technologies that do not exist," – yet.

That is Innotribe on Monday – the future, music, with state-of-the art visual effects, and games. Walk up and smell the coffee. ■

TO LEARN MORE ...

Innotribe week opening and Industry Challenge on securities
Monday 26 September – 09:00-09:30

Emerging technologies for financial services
Monday 26 September – 15:15-16:45

Organise for complexity
Tuesday 27 September – 09:30-11:15

A refreshed menu caters for all appetites

Geneva's Palexpo exhibition and congress centre will play host to a Sibos programme that reflects the transformative changes taking place in the finance sector.

Sibos 2016 in Geneva features a number of changes in structure and format compared to last year's event in Singapore, as the conference looks to evolve in line with customer demand and industry priorities. Although this year's Sibos will include a wider range of session formats and a more prominent educational element, perhaps the most high-profile change is the restructuring of the week's agenda into four core streams.

The aim is to ensure the conference analyses and explores in detail the technological, competitive and cultural shifts that are reshaping the banking and finance industry. By the end of the week, delegates will hopefully return to their desks with a clearer understanding of how innovation in technology, disruptive competition, profound cultural shifts and fast-evolving trends in consumer behaviour are transforming their firms, customers and the wider world. As reflected in today's 'Week-at-a-glance' centerspread, four key themes will run throughout Sibos week:

- Banking – Focusing on SWIFT's historical core of payments and correspondent banking, this stream looks in detail at the challenges of delivering upgraded service propositions to corporate and institutional clients in a highly regulated and increasingly digitised world.
- Compliance – Tackling one of the defining issues of the age, this stream provides delegates with deep insights into financial crime and terrorist finance practice and policy, while also providing comprehensive coverage of the compliance tools, tactics and strategies being adopted by banks across business lines.
- Culture – Even in a technology-led industry, individuals' behaviour and attitudes are still critical to firms' ability to deliver value to stakeholders and customers. This new stream looks at the skills, practices and methodologies that will help the finance sector contribute to society in the long term.
- Securities – Having undergone significant regulatory change, the securities sector is deploying technology innovation to drive new efficiencies and develop new services. This stream examines innovation, collaboration and competition by and between market infrastructure operators, securities services firms, technology vendors and new service providers.

All main conference sessions will fall into one or more of the above themes, but distinctive existing 'tracks' such as Innotribe and the Standards Forum will retain their unique characteristics and presence. Moreover, delegates that wish to follow sessions with a particular focus – for example on cyber-security or market infrastructure or corporate treasury or distributed ledger technology – can choose their preferred tracks using sibos.com's interactive conference programme guide. ■

A deeper dive

The *raison d'etre* of the SWIFT Institute has always been to foster closer links between academia and the finance industry, and its agenda at this year's Sibos includes some interesting new approaches to pooling knowledge across the worlds of theory and practice.

Covering several themes in common with the broader Sibos 2016 programme – such as APIs, artificial intelligence, blockchain, compliance, cyber-security and financial inclusion – the SWIFT Institute sessions and presentations offer a distinct perspective on the challenges facing the industry, and may well change the perceptions of delegates working at the 'coal face' of banking. Some sessions even tackle two topics in parallel, such as Monday morning's investigation into machine-learning and artificial intelligence, and the role the latter can play in defending banks and other institutions against cyber-attacks. The session will be presented by Kalyan Veeramachaneni, principal research scientist at the Massachusetts Institute of Technology's Laboratory for Information and Decision Systems.

As previously, a number of this year's presentations are drawn from research projects funded by the SWIFT Institute. Other sessions include the Wednesday morning presentations from Bruce Weber and John Trundle, both of whom sit on the institute's advisory council. Trundle, CEO of Euroclear UK & Ireland, will share a business head's experience of implementing a multi-faceted cyber-security defence strategy. Weber, dean of the Lerner College of Business and Economics at the University of Delaware, will meanwhile explore issues around staff recruitment and development in 'New dynamics of the FinTech talent pipeline', a presentation which reflects his recent discussions with banks and others on their evolving expectations of graduate recruits.

A particular highlight will be a presentation on Wednesday afternoon by the winners of the inaugural SWIFT Institute University Challenge, which asked groups of post-graduate students from UK universities to propose their solutions to some of the very real challenges faced by the banking industry. The successful University of Warwick Business School team is not yet sure whether they intend to turn their prototype into a business, but the SWIFT Institute is certain that the exercise should be repeated, and plans are already afoot to run a similar challenge for Canadian universities, with the competition culminating at Sibos 2017 in Toronto. Sibos Issues will examine this year's winning entry – which proposes a more efficient and convenient approach for remittances between UK and Indonesia – in more detail on Wednesday.

Almost all of this year's SWIFT Institute presentations will take place at a purpose-built amphitheatre on the SWIFT stand, typically taking the format of a 30-minute 'TED talk'. One deviation from this approach, drawn from academic conferences, is Wednesday afternoon's presentation on 'Open APIs and the transformation of banking'. Following the presentation of academic research on how wider use of APIs might change the competitive landscape of the payments sector, a 'peer review' of the findings will be provided by a practitioner, Damian Richardson, head of payments strategy and innovations at the Royal Bank of Scotland.

One element of last year's SWIFT Institute agenda that remains largely unchanged is the 'Question of Finance' gameshow, following its popular introduction in Singapore. Two teams (each consisting of one academic and two practitioners) will battle it out across eight rounds to establish who has the best all-round knowledge of the finance sector, hosted – or perhaps refereed – again by comedian and financial PR guru Julia Streets. We hope to bring you the results of this keenly-fought contest in tomorrow's Sibos Issues, while further details of SWIFT Institute sessions are available in today's centrespread and on sibos.com. ■

HAVE YOU SEEN THE SWISS LOUNGE?

No? That's not surprising. After all, the Swiss are a famously industrious nation, with very little time for lounging. But if any delegates do feel the need for sedentary contemplation over the next four days, the Swiss Lounge – a new innovation for 2016 that Sibos hopes to replicate in Toronto next year – provides the ideal venue. Situated prominently on the exhibition floor (G54), this new space offers conference-goers the chance to taste the best of the host country – including chocolate from local producer Favarger – in relaxing surroundings, and also highlights the dynamism and diversity of Switzerland's fast-growing FinTech industry.

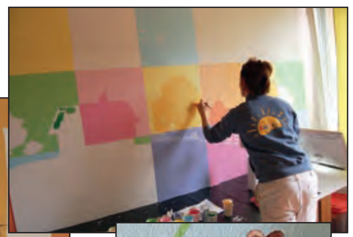
Over the course of the conference, 24 firms will populate the lounge's Swiss FinTech Corner with the aim of demonstrating their solutions and sharing their ideas with fellow Sibos attendees. "Partly due to its traditional status as a large international financial services centre, Switzerland's FinTech sector has typically taken a very collaborative, complementary approach to the incumbent industry, rather than trying to disrupt it," says Michael Kleiner, economic development officer at the Department of Security and Economy for the state of Geneva, which has coordinated the FinTech firms' presence at Sibos in conjunction with the Swiss Finance and Technology Association and Alp ICT, which promotes the technology sector in western Switzerland.

Switzerland can already claim to have a thriving FinTech sector, with more than 200 registered start-ups, supported by a thriving eco-system of suppliers, incubators, accelerators and investors. It is also a varied scene: product development is currently spread across areas including payments, banking infrastructure, personal finance, institutional investment and blockchain.

"As a FinTech hub, Switzerland is quite diverse, with a number of firms in the robo-advisor space located in the west of the country looking to partner with Geneva's large wealth management and private banking industry. More centrally, the area around Zug has become known as 'crypto-valley' due to the number of firms focused on solutions that leverage smart contracts or distributed ledger technology," says Kleiner. ■

To find out more about the Swiss FinTech firms attending Sibos and when they will be available, visit http://swissfintechcorner.ch/s

HELP TO RAISE A SMILE




Art has many functions in society, but an important one is to bring comfort and inspiration to those in need. For this reason, SWIFT has selected as its CSR and Art at Sibos partner the Anouk Foundation, which uses art and music to create soothing environments for children and adults in hospitals, nursing homes and special needs institutions.

Founded in Geneva in 2008, the non-profit foundation has completed more than 100 projects in 13 European countries to help brighten the lives of patients at medical facilities. In each project, the artists follow a distinct Anouk methodology, and work closely with patients and staff to define the project and ensure it meets their specific needs.

SWIFT has already sponsored artists from the Anouk Foundation to create therapeutic murals at the Auguste Buchet institution, a facility based in Etoy, Switzerland that provides educational programmes for children with mental and physical disabilities. Completed in March, the project installed artworks throughout the paediatric ward that were specially designed to reduce stress and aid recovery.

To further support the work of the Anouk Foundation, Sibos delegates are invited to do battle against each other in a Wii-style digital game on the SWIFT Stand – with SWIFT donating funds for every game played. In addition, Anouk Foundation artists will work on site at the Palexpo through the week, producing a 'transformative' fresco. Tomorrow's edition of Sibos Issues will carry photos reflecting the first day's progress. ■