Welcome to the second issue of Velocitates for 2016. One of the core tenets of the SWIFT Institute is the dissemination of knowledge and information, and through this newsletter that is exactly what we'll do.

As ever, we live in interesting times. The recent Brexit vote in the United Kingdom means that things will likely become even more interesting in the months (and years) ahead. In this issue Professor Stuart Weinstein writes about the impact of Brexit on the financial services industry.

The past few months have been as exciting as ever for the SWIFT Institute. We published a paper by professors Alistair Milne and Michael Mainelli on the impact and potential of the blockchain on the securities transaction lifecycle. This paper gave a realistic view of the potential, and received significant interest from the global financial community and the press.

Bringing academia and financial industry practitioners together is a core tenet of the Institute. So far this year we have participated in events in Oslo, Kuala Lumpur, Toronto, Mauritius, London and Milan. We will soon be in Shanghai for the second Greater China Conference. And of course we will be in Geneva for Sibos, where will have a great line-up of SWIFT Institute Talks planned, by some of the world’s leading academics.

FinTech continues to dominate efforts amongst our industry and in academia, and it is the subject of our Hot Topic feature in this issue. Two distinguished experts give their opinions on collaborating around FinTech for the good of the customer - Bruce Weber, Dean of Lerner College and the newest member of the SWIFT Institute's Advisory Council, and David Dab, Chief Innovation Officer at ING Belgium.

Finally, this year we held the first SWIFT Institute Challenge, targeting university students. Held in the UK, we asked students across the country to address a real world challenge being faced by remittance senders, receivers and their banks. The winning team are named HADU and come from Warwick Business School at the University of Warwick. They will be at Sibos in September presenting their innovative idea. What can we learn from the millenial generation? Come along to Sibos and find out.

I look forward to seeing you in Geneva in September.

Peter Ware
Topics in this issue
News, Hot Topic, Research, Conferences, Coming Soon

SWIFT Institute
Bridging the Gap between Academia and Financial Services

Snapshot: July 2016
21 Paper published
31 Grants awarded

Goals of the SWIFT Institute
To bring science and practice together
To fund independent research
To support knowledge-led debate

Where in the world our researchers are:

- Canada
- USA
- UK
- Netherlands
- Germany
- France
- Finland
- Hong Kong
- Singapore
- India
- Malaysia
- Taiwan
- Australia

70% 30% Diversity of grantees

Upcoming Research
- Multinational Banking and Conflicts among US-EU AML/CTF Compliance and Privacy Law, Operational & Political Views in Context
- A Global Perspective of Human in Finance
- Further research on Impact of Blockchain in Securities Transaction Lifecycles
- Regulatory Compliance, Transatlantic Extraterritoriality and the Regulation of Derivatives
- Examination of Financial Data Collection Processes and Standards
- Competition and Innovation in Payment Services: Regulatory and Compliance Conflict
- CREST 20th Anniversary Review
- Impact of Open APIs on Banking

To download our infographic, click here.

News
The SWIFT Institute is governed by an Advisory Council comprising leading academics and financial services industry professionals, with a demonstrable record of independent thinking. The Council is balanced, including members from both academia and the financial services industry. They provide guidance and approval on the topics to be researched, research proposals, and the resulting grants.

After several years of dedicated support and guidance, Stanford University Professor Darrell Duffie has stepped down from our Advisory Council. We thank him for his help in making the SWIFT Institute the reputable entity it is today. In his stead, we welcome Professor Bruce Weber, Dean of Lerner College at the University of Delaware. Dean Weber is a longtime supporter of the SWIFT Institute and we are excited to have him as part of our Advisory Council team.

The Impact of Brexit on the Financial Services Industry

By Professor Stuart Weinstein

SWIFT Institute Challenge: Financial Solutions from the Next Generation

University of Warwick wins the SWIFT Institute Challenge

In January the SWIFT Institute announced the launch of a new competition targeted at university students. The SWIFT Institute Challenge 2016, which has the support of HM Treasury, the UK's economic and finance ministry, asked students to address a real world challenge being faced by remittance senders, receivers and their banks. The aim was to find ways to make remittances safer, faster and cheaper.

The ‘HADU’ student team from Warwick Business School at the University of Warwick were voted the winner. Their solution focussed on sending money from the UK to Indonesia, with distribution to the recipient via near sound data technology for mobile money and a network of branded high-security buses for physical cash. Download their winning presentation here.

At the SWIFT Business Forum London held on the 20th April, Harriett Baldwin, Economic Secretary to the Treasury, City Minister presented the HADU team with the 15,000 GBP prize and a trip to Sibos, SWIFT’s annual financial services event held in Geneva this September.

Commenting on the Challenge, Harriett Baldwin said: “Innovation in payments solves real-world problems and has the ability to change how we, as consumers, interact with our money. That's why it's so exciting to see the projects from today's SWIFT competition teams looking at how we can make remittances easier, cheaper and more efficient for people in the UK and around the world”

To register for SIBOS and see HADU present their solution, visit here.

Brexit - Guest Article

The Impact of Brexit on the Financial Services Industry

By Professor Stuart Weinstein
The most immediate concern is instability in the sense that markets and businesses abhor uncertainty. Unless clarity is had, and had fairly soon, the long term impact of the Brexit referendum could weaken the attractiveness of the United Kingdom (UK) as a global centre for banking operations.

Already within days of the outcome of the vote there has been talk of a number of the large United States banks exploring contingency plans to move some of their operations from London to cities based in European Union Member States. And it is not only the American banks that are thinking of moving jobs out of London. At least one British multinational bank headquartered in London is considering moving 1,000 jobs involved with Euroclearing from London to Paris if the UK leaves the Single Market.

What is the Single Market and why is it so attractive to the UK’s financial services industry?

The Single Market refers to the European Union (EU) as one territory without any internal borders or other regulatory obstacles to the free movement of goods and services. Leaving the Single Market means that UK banks would lose “passporting” rights to operate in the EU, and that tariffs would have to be paid for services, thereby making UK financial services exports to the EU uncompetitive.

Norway and Switzerland offer some answers to the dilemma.

Access to the European Economic Area is referred to as the Norwegian model where “passporting” is allowed because Norway enjoys this arrangement with the EU although it is not a member of the EU. Contrast this with the Swiss model where Switzerland is a member of the European Free Trade Association but not a member of the EU. Swiss banks unlike Norway don’t enjoy “passporting”.

Moreover, both Norway and Switzerland have to provide free movement of persons to citizens of the EU, a point likely to be re-examined in Switzerland after they had a 2014 referendum voting for quotas on immigration from EU countries reminiscent of a major point of contention in the UK referendum.

Absent a Norwegian or Swiss style deal, the UK would have to enter into bilateral agreements with the remaining 27 Member States of the EU to ensure access to financial markets.

Compounding the problem is the fact that many overseas banks (particularly the American banks) have used London as their gateway to the EU. If the ability to be regulated by UK banking authorities impinges on access to the Single Market, these companies will explore other options.

Read the full article here.

SWIFT Institute Talks

From Toronto to Geneva: Topical Lectures from Academia

In April 2016 at the SWIFT Business Forum Canada event in Toronto, the SWIFT Institute presented three SWIFT Institute Talks. These 30-minute lectures in the style of TED-Talks were undoubtedly a
highlight of the day. Aaron Klein of the Brookings Institution provided insights as well as humour on the challenges in creating regulation that minimises implementation costs. Cyber consultant Lance James of Unit221b gave a glimpse of the deep and dark web, and advised on how to stay ahead of increasing cyber threats. Jean-Philippe Vergne from the Ivey Business School at Western University looked to the future with his views on thinking strategically about FinTech and blockchain.

You can watch these exciting talks here.

SWIFT Institute Talks will play a feature role at Sibos Geneva with nine lectures throughout the week. Taking place in a purpose built amphitheatre on the SWIFT stand, these lectures will see experts share their knowledge on a wide range of topics, including the ABCs – AML, blockchain and cyber.

Additionally we will showcase the winning team from the inaugural SWIFT Institute University Challenge. Held earlier this year, we challenge students to come up with an idea on how to improve remittances being sent from a bank in one country to a potentially unbanked individual in another country. The winning team is from Warwick Business School, University of Warwick in the UK. The students will share their winning idea, which was voted on by a banking audience in April at SWIFT’s Business Forum London.

And finally the SWIFT Institute is pleased to host the second annual Sibos quiz, A Question of Finance. The quiz partners’ university academics with financial industry professionals in a battle of wits. Two teams will answer questions on their own areas of expertise, as well as other areas where they may not be so well versed. Each team will be led by a captain of academia, with two supporting “stars” from the financial industry. Just how smart are academics and financial industry professionals? Come along and find out!

For our full agenda at Sibos, click here.

The modern version of the ATM technology did not have a single inventor, but was rather the result of three independent efforts in 1967 including the launch of Barclaycash and Chubb MD2 in the UK and the Bankomat in Sweden. 1969 saw further forays into the technology: the UK’s Midland bank partnered with tech company Speytech to roll out their machines; Japan’s Omron Tateishi company installed one outside the Sumitomo Bank; and the Chemical Brothers installed one at the Rockville Centre in New York. Each of these original machines handled the automation of cash-dispensing in different ways. Some machines dispensed cash in plastic cartridges, some required tokens that after having been inserted into the machine were later mailed back to the customer, whilst others issued customers stacks of paper to be used in a similar fashion to a cheque.

It was a slow takeoff for the shiny new machines. Banks were interested in pushing the technology, however, because they believed that they could attract new customers with automation that would then put them in a better position to further sell profitable loans and credit cards. In the UK, ATMs were an answer to the pressure being applied from the increasingly powerful unions opposed to long working hours. In the U.S., it was a blizzard in 1977 that helped increase the popularity of the Citibank automated machines in New York City. The blizzard dropped close to 17 inches of snow, which forced the closure of bank branches for many days. The use of ATMs increased by 20 percent during this time, helping change the public view of ATMs.

Technology advanced with IBM introducing the online interconnective software that ATMs now run on,
allowing terminals to be connected to the banks’ larger computerised networks through dedicated phone lines. By the 1980s most banks had adopted ATMs, forcing the industry to standardise the machines as banking networks became more open. The further onset of Windows operating systems and XFS on cash machines meant that the software applications became more intelligent with programmable applications that allowed for an entirely new array of evolved bank-related functions such as paying routine bills, printing bank statements and transferring money between linked accounts. For countries supported by a fully integrated cross-bank network, non-bank-related functions were also offered including the adding of mobile phone credit, purchasing of concert, train or lottery tickets, or donating to charities. More recently, banks have increasingly realised sales opportunities, also known as overlay services, through ATMs by delivering pre-approved loans and the application of targeted advertising over the machines.

In the 1960s and 70s, “self service” and “automation” were the big buzzwords of the day and ATMs were at the forefront of technology. Today’s technologies relating to Blockchain or Faster Payments Systems can take heed of the lessons learned from the ATM experience and the important roles that open standards and overlay services have played in popularising this once new technology.

Hot Topic

The Future of FinTech: Collaborating for the Good of the Customer

‘FinTech’ with all of its disruptive, David-vs-Goliath build-up is in full swing with global FinTech investment growing by 75 percent, or $9.6 billion, to $22.3 billion in 2015, according to an Accenture report.

SWIFT Institute decided to take a look behind the hype and examine where FinTech sits within the more long-term historical trends relating to financial technology, as well as touching on two main topics within FinTech innovation: Big Data and blockchain. We spoke to Bruce Weber, Dean of Lerner College of Business & Economics at the University of Delaware, and David Dab, Chief Innovation Officer at ING Belgium, about their predictions for the use of innovative technology within the financial services industry.

FinTech phenomenon?

Bruce Weber started off by challenging the current hype surrounding FinTech, asking whether the recent bout of innovation is a new phenomenon, or an extension of existing developments. One of the first FinTech revolutions came with electronic trading and paperless trade settlement in 1970, removing the necessity of floor traders and messenger boys running back and forth between firms with share certificates. In 1969 and 1970, US stock markets had to close on Wednesdays for about a six-month period because the manual, paper-based settlements system could not keep up with the spike in trading volume. ATMs appeared as early as the late 60s and caught on in the 1970s. “The FinTech revolution has been around since the early 70’s,” Weber said. “We are not dealing with something that has just started; we are instead seeing something that is disruptive but is evolving. There has been a long tradition of financial services firms taking technology on board to streamline and automate important functions. As soon as one function or market is computerised, new
opportunities arise.”

Weber believes, however, that we were currently at an inflection point with mobile and cloud computing, and ubiquitous internet access, which allows greater consumer accessibility to their financial accounts than ever before. He explained, “I think that what is new within the last five to ten years is the notion that maybe these new technologies could actually replicate the services of the dominant, incumbent banking firms. Now, every FinTech inventor or investor is interested in challenging our assumptions about what the end customer wants to do. Would they want to have their credit card replaced by their mobile phone, or their government-assured commercial bank accounts held in Bitcoin instead? These are the big open questions.”

David Dab agreed with the fact that today the FinTech scene presented a very complex landscape with a lack of clarity and a definite tendency towards hype. “If you look at it from a distance,” he said. “It is just a normal stage of development of an initial proliferation of ideas and companies leveraging new technologies and possibilities.”

FinTech’s future: the best of times...

When asked about the best-case scenario for the future of FinTech, Weber immediately responded that the investment landscape of household investors has become so much more efficient and cost-effective than it was in the 1980’s because of technology and competition. “The amount of trading cost that has been taken out to the benefit of retail investors is huge, probably more than 90% in reductions across bid-offer spreads, fees and commissions by the on-line brokerage firms. It’s year-round Christmas for the individual investor,” commented Weber.

Read the full article here.

Research

Our research is your research...

All SWIFT Institute sponsored research is freely available to download on our website. Our aim is to spread knowledge far and wide, so we encourage you to download our papers and distribute them throughout your own institutions and networks.

In the next few months you can expect to find published papers on topics such as Competition, Innovation and Regulation in Payments, Data Collection Processes and Standards, CREST and the ubiquitous blockchain.

Our most recently published papers are:

- Blockchain for Securities - download
- Mobile banking in Kenya - download
- Virtual currencies vs Fiat currencies - download
- Modelling the cost of trade finance - download

Details of all SWIFT Institute research grants, including those that are still in progress, can be found here.

Be the first to hear about new research grants and our latest published research by registering with us here.

By the Numbers

Grants Awarded | Papers Published

The name of the SWIFT Institute newsletter, Velocitates, comes from the Latin velocitas meaning swiftness, and in our case the plural therefore swiftnesses. The term Velocitates first appeared in print in the early 1700s in the world’s first scientific journal: The Philosophical Transactions published by the Royal Society of London for Improving Natural Knowledge. The journal’s aim was, and continues to be, to inform readers of...
Conferences

Since launching the SWIFT Institute we have hosted many events bringing academia and financial industry practitioners together to debate and learn from each other. These events have proven to be very successful, with both groups enjoying and benefiting from greater engagement. Going forward in 2016 the Institute will focus on bringing academic content to the range of SWIFT events that take

Research Underway

A Global Perspective of Women in Finance
Further research on The Impact and Potential of Blockchain on the Securities Transaction Lifecycle
Regulatory Compliance - Extraterritorial Challenge
Examination of Financial Data Collection Processes and Standards
Competition and Innovation in Payments Services: Regulatory and Compliance Conflict
Governance of Competition and Innovation in Payments Services
CREST: A 20th Anniversary Review
The Impact of Open APIs in Banking
A Predictive Cyber Security Cost Model

For more details visit our web site.

Completed Research

Can mobile money be used to promote savings? Evidence from Northern Ghana
The Prospects for a Common Language in Wholesale Financial Services
Internationalisation of the RMB: New Starts, Jumps and Tipping Points
New Regulations and Collateral Requirements – Implications for the OTC Derivatives Market
Financing the SME Value Chains
A Dynamic Stochastic Network Model of the Unsecured Interbank Lending Market
Macroprudential Oversight, Risk Communication and Visualization
The Global Network of Payment Flows
Theory of Optimum Financial Areas: Retooling the Debate on the Governance of Global Finance
Cross-border Low Value Payments and Regional Integration: Enablers and Disablers
Bitcoin – The Miner’s Dilemma
The Scope of International Mutual Fund Outsourcing: Fees, Performance and Risks
Prospects and Challenges of the Development of ASEAN Exchanges
Near Real-time Retail Payment and Settlement Systems Mechanism Design
Who will take the lead in shaping China’s securitization market model?
The Evolution of Third Party Payment Providers and Cryptocurrencies Under the EU’s Upcoming PSD2 and AMLD4
The Role of Big Data in Governance: A Regulatory and Legal Perspective of Analytics in Global Financial Services
Impact and Potential of Blockchain on Securities Transaction Lifecycle
A Quantum Leap Over High Hurdles to Financial Inclusion: The Mobile Banking Revolution in Kenya
Modelling the cost of financial services
The Influence of Virtual Currency on Fiat Currency

To download the papers visit our web site.
place throughout the year. We've now participated in Business Forums and Regional Conferences in Kuala Lumpur, Oslo, Toronto, London, Mauritius and Milan.

The SWIFT Institute will hold its second Greater China Conference (the first was held in 2013) in partnership with SWIFT later this month in Shanghai. And of course we will be bring more Talks to the stage at Sibos in Geneva in September.

Below you can find details of the upcoming events. Full details when available will be on our website.

**Upcoming:**

- **21 July 2016**
  - SWIFT Greater China Conference
  - Venue: Mandarin Oriental Pudong, Shanghai

  Full details including registration available [here](#).

- **26-29 September 2016**
  - SWIFT Sibos 2016 Geneva
  - Venue: PALEXPO Convention Centre, Geneva, Switzerland

  Full details including registration available [here](#).

**Coming Soon**

Here is what you can look forward to in the months ahead...

- Greater China Conference - 21 July
- Sibos 2016 Geneva- 26-29 September
- New research - Banking Conflicts Among US-EU AML/CTF Compliance & Privacy Law - Q2
- New research - Impact of Blockchain on Securities Transactions No. 2 - Q3
- New research - Women in Finance - Q2
- New research - Examination of Financial Data Collection Processes and Standards - Q3
- New research - Regulatory Compliance - The Extraterritorial Challenge - Q3
- Next issue of Velocitates - Q3

[Visit our website](#) to see what else is happening at the SWIFT Institute.