Resilience and innovation in times of change

Keynote speech at ASIFMA Tech & Ops Conference 2022

Ms Julia Leung
Deputy Chief Executive Officer and Executive Director, Intermediaries

6 October 2022

Good afternoon, ladies and gentlemen. Thank you for inviting me to deliver the opening keynote for today's events at this year's ASIFMA Tech & Ops Conference.

I want to begin by reflecting on the passing of Queen Elizabeth II of the United Kingdom last month. The late Queen was mourned by millions around the world. She was the embodiment of many virtues, lifelong dedication to public services above all else. But what is most sorely missed is probably the element of constancy which characterised her 70-year reign.

Constancy is something of a rare commodity these days, when financial markets, businesses and households in many parts of the world are being disrupted by a global health crisis, soaring interest rates and energy bills, and rapid technological advances.

We live in a time of great disruptions, where our ability to maintain constancy and preserve operational resilience against COVID and volatile markets are more important than ever. And equally important is the ability to capture the benefits of using new technology to create and distribute innovative products while minimising untoward disruptions.

In my speech today, I will focus on how the advent of artificial intelligence (AI) and other technological advances have changed the way we invest and how products are distributed, as well as the risks associated with them.

Increasing use of technology

The Securities and Futures Commission (SFC) is a principles-based regulator and we adopt a technology-neutral regulatory approach. We believe the use of innovative technology can help make the delivery of financial services more efficient, robust and cost effective. To facilitate the use of technology whilst maintaining resilience, the SFC strives to ensure that our rules—designed for investor protection and orderly and fair markets—also apply in digital environments.

Well before the outbreak of the COVID-19 pandemic, the SFC allowed brokers to use non face-to-face means to open client accounts, such as biometrics, certification and other methods for clients residing overseas. We also provided clear guidance[1] to online distribution platforms on the conduct and disclosure requirements for self-directed services.

Note: This is the text of the speech as drafted, which may differ from the delivered version.

[1] In the Guidelines on Online Distribution and Advisory Platforms published on 28 March 2018.

Online retail brokers

After the outbreak of COVID in 2020, online investment platforms really took off. Social distancing restrictions, combined with rises in the prices of technology stocks—including US meme stocks that were popular on social media, spawned a younger generation of retail investors who prefer self-directed trading online. This disrupted traditional stockbrokers' business model, which relied on personal relationships with clients.

We recently conducted a review of licensed corporations (LCs) providing online brokerage, distribution and advisory services, and we published our findings and observations about a month ago. The 50 LCs we reviewed opened over three million new client accounts during the 12-month period we surveyed, and 96% of them were onboarded remotely. On these platforms, trading in equities markets outside Hong Kong represented 47% of total turnover. Obviously, platforms which can achieve economies of scale can charge lower commission fees.

Our survey also found that brokers who only offer online order execution are saving significant frontline resources. Online brokers are making significant investments in technology, and in some cases, they are developing their own social media platforms to attract a larger number of followers and potential clients.

Online distribution of investment products and advisory services

The number of brokers using online platforms for the distribution of investment products increased 21% to 70 firms last year. Collective investment schemes (or investment funds) remained the most popular product bought online, accounting for 91% of total online sales, or $295 billion. Money market funds were still the most popular investment products traded online, mainly for cash management purposes by stock investors.

In our inspection, we noted a common problem that there was inadequate product due diligence before the product was put on the shelf. Also, some complex products, the features of which are not easily understood, were sold to clients without properly going through suitability assessments. LCs should be mindful that their suitability obligations may also be triggered in the online environment, and they should not procure clients to acknowledge clauses or statements which might restrict client's rights, exclude LCs' obligations or misdescribe their services. When selecting investment products to be made available on their online platforms, LCs should act with due skill, care and diligence, and this includes when posting product information and other materials.

Wealthtech: the use of robo-advice and AI

We have also provided guidance to intermediaries on robo-advice in a digital environment. There are many types of robo-advice. They range from fully automated, with no-human intervention, to semi-automatic to support online advice by private bankers. But all of them usually involve the use of algorithms and other technology tools for providing financial advice or automatically rebalancing a predefined model portfolio to maintain a target asset allocation.

Algorithms are the core component of these tools, and it is essential that firms have adequate resources to effectively manage and adequately supervise the design, development, deployment and operations of the algorithms they use. Robust controls should be in place to monitor and test the algorithms and the reasonableness of the advice provided to clients, and this should be done by suitably qualified persons.

In recent years, the SFC has seen a significant increase in interest from LCs in providing robo-advisory services, either fully automated or semi-automated. We have granted licences to around 10 robo-advisors who provide retail access to a full suite of wealth management services online. We can see that AI has helped make personalised investments available at a more affordable cost.

Sustainability and Greentech

Technology not only enables us to conduct conventional transactions in a smarter way, it also facilitates a greener and more sustainable way of conducting business. To date, nearly 200 countries have signed the Paris Agreement which aims to achieve net-zero greenhouse gas (GHG) emissions globally by the middle of the century to combat the catastrophic impact of climate change. We have also seen a growing number of environmental regulations in different jurisdictions, especially in the European Union and, in this part of the world, Hong Kong. These range from disclosure and reporting requirements, to reductions in GHG emissions by companies to align with the jurisdiction's net zero target.

All these actions have stimulated the development of Greentech to assist companies to comply with regulations and help drive the economy towards sustainable growth. Greentech would include renewable energy technologies, low carbon construction, carbon capture and storage, green materials and carbon tracking tools.

The SFC is playing a leading role in a number of Greentech initiatives. Under the umbrella of the Green and Sustainable Finance Cross-Agency Steering Group co-chaired by us and the Hong Kong Monetary Authority, we are working with advisers to create a free and publicly accessible GHG emissions estimation tool to assist the industry to cope with issues of data deficiency. Such a tool aims to integrate multiple data sets with clearly disclosed methodologies that everyone can use to calculate GHG emissions. Technology will continue to play a pivotal role in mitigating the risk of greenwashing and channelling resources to finance a lower carbon economy.

Regtech

Process automation and digital transformation can also enhance the efficacy of the processes intermediaries use to comply with regulatory requirements, such as those for client onboarding and anti-money laundering.

With the rapid expansion of online businesses, more firms are exploring the use of facial recognition technology to match customers' biometric data against their identity documents. This helps firms fulfil the first and most important step of their customer due diligence obligations—verifying the identity of the customer—and reduce impersonation risks.

Regtech can be less complicated than it sounds. It can be low-barrier, easy-to-implement technology such as robotic process automation (RPA), which automates repetitive and timeconsuming manual processes. More firms are applying RPA in their screening for politically-exposed persons and sanctions as well as their adverse media searches. Instead of having a compliance analyst typing a customer's name into multiple screening databases, a robot pulls names and identifies details from source systems, automatically performs searches of screening databases and generates alerts when there are potential "hits". Robots may also help clear simple false alerts, for example, when identification details do not match.

Transaction monitoring

Application programming interface (API) is another easy-to-implement technology for ascertaining the source of a customer's deposit. Some firms have API arrangements with banks to obtain depositors' names and automatically identify if they match the customer's name. If not, this is a third-party deposit which should be subject to enhanced due diligence.

Furthermore, with network analytics, firms can identify hidden connections between a group of seemingly unrelated customers. This includes when they share common personal particulars such as email addresses or their trading behaviour exhibits a high level of similarity—a common feature of "ramp and dump" schemes seen in the stock market.

In the past two years, the SFC has taken enforcement action against 11 firms for failures in relation to anti-money laundering controls. They commonly failed to identify third party fund transfers and potential nominee arrangements for concealing the real beneficial owner. As many firms still conduct surveillance manually, they are bogged down by a large back-log of false alerts and fail to follow up on genuine ones. We encourage firms to strengthen their anti-money laundering capabilities by adopting Regtech so that resources could be more efficiently deployed to high-risk, high-priority areas.

Suptech

Suptech is short for Supervisory Technology. In our investigations of company misconduct and enquiries into the fitness and properness of individuals, our supervisory and enforcement teams use network analytics extensively to identify relationships among target individuals and listed companies.

Our fascinating journey into Suptech passed a milestone in January this year when we launched the next generation licensing platform on WINGS[2] together with a companion mobile application, WINGS Mobile App. This fully digitalised platform provides a one-stop, comprehensive service for users to prepare and submit licensing forms electronically, track the progress of applications, pay licensing fees and communicate directly with the SFC. Online submission of all licensing applications, notifications and regulatory filings via WINGS became mandatory from April this year.

WINGS 2.0 is integrated with our internal platforms which generate business intelligence using online analytics and a highly-automated, risk-based workflow to enhance overall processing efficiency using a risk pattern identification process enabled by AI. We also expanded our monthly financial resources data collection from cash and futures brokers, and the data collected allows us to perform daily stress tests on brokers' liquidity based on live-streamed stock market data.

---

[2] A web-based platform for SFC electronic forms and online submission services launched in January 2019.

Data standards for order life cycles

Another major Suptech initiative is data standards for order life cycles, or DS-OL. In July 2019, the SFC issued new data standards to prescribe the minimum content and presentation format of trading-related data submitted to us by in-scope brokers. This facilitates our use of data analytic tools in inspections, allowing us to examine large volumes of complex trading-related data to identify potential trading misconduct and systemic control deficiencies in key compliance areas such as short selling, best execution and conflicts of interest.

In our recent pilot testing, the analytic tool analysed execution outcomes of similar orders placed by clients and internal trading desks to identify abnormal patterns of best execution and preferential or unfair treatment of clients.

On the organisational front, the SFC Intermediaries Division will soon establish a Suptech team comprising professionals in data analytics and cybersecurity. This will enhance our Suptech and Regtech capabilities, which in turn will enable us to carry out our regulatory work more efficiently.

Managing the risks of digitalisation

While we embrace the use of technology to lower costs and achieve greater efficacy, we have emphasised to firms the risks that come along with digitalisation. We place a great deal of emphasis on the measures firms are adopting to ensure resilience—including reliability of their information technology (IT) systems, adequacy of their capacity and security, as well as their contingency and recovery plans. Failure to manage these risks could severely hamper a firm’s operations and harm client interests.

Cybersecurity

Cybersecurity has also become much more critical in recent years. In response to a few local hacking incidents in 2016 involving online brokers, the SFC issued its Cybersecurity Guidelines[3] in the following year. These guidelines set out baseline requirements for intermediaries to reduce and mitigate hacking risks associated with internet trading. The requirements cover the digital journey of client instructions from login security—including two-factor authentication, data encryption, infrastructure security management—to system backup and contingencies, reporting and escalation to senior management.

Third-party vendor risks

We are also keeping a close eye on firms’ use of vendor-supplied systems, applications or software to provide internet trading services, which has become more common. Firms rely on vendors or software providers to install or release security patches or hotfixes for network and system vulnerabilities which may be exploited by hackers. It is therefore important for firms to proactively engage their third-party vendors for updates, and review their own compliance with the baseline requirements in their IT audit or cybersecurity assessment at least annually.

[3] The Guidelines for Reducing and Mitigating Hacking Risks Associated with Internet Trading, including the FAQs on Cybersecurity published by the SFC on 27 October 2017.

Operational resilience

It is obvious that the convenience and efficiency of technology helps bolster firms' operational capacity. For example, an average of 45 million SWIFT messages are processed globally each day. Standardisation facilitates a high degree of automation for order execution, settlement and payment between financial institutions. But given the high volumes, a failure in a third-party process in the circuit could severely clog up traffic and have a domino effect on other parties.

A small number of minor incidents involving disruptions in payments have happened in the past. While these incidents were fixed in a relatively short time, the consequences could have been very serious if they were not. It is often the low-probability, high-impact events that keep one awake at night. These incidents served as a reminder that firms should have a playbook which can cater for all sorts of scenarios and a rapid response team to respond to disruptive incidents and trigger contingency arrangements to ensure continued operational resilience.

Constancy and resilience

Ladies and gentlemen, in closing, let me go back to what I said at the beginning—we live in a time of great disruptions where constancy is a rare commodity. Constancy in our financial markets means staying resilient and maintaining orderly business operations.

Maybe we can learn something about resilience from the coronavirus—it keeps mutating to survive. A new virus variant proliferates and becomes the dominant strain when it outcompetes the others. This is the secret sauce for the coronavirus to keep thriving. In the financial world, nowadays the secret sauce is how technology can be harnessed for the business to keep evolving and growing.

With many disruptive changes happening, this is now a time of great peril but also great promise. Success will often depend on the ability to capture the benefits of technology to create innovative products and cost-effective processes. Failure to keep up with the competition may lead to loss of market share, but failure to harness the risks could even lead to extinction. So there will be clear benefits from going tech, going green, and staying resilient and innovative in times of change.

Thank you.