

New Technologies and Asset Management: A time of great promise and great peril? Hong Kong Investment Funds Association Luncheon

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Thank you so much for inviting me to this luncheon event hosted by the Hong Kong Investment Funds Association. I am very delighted to have this opportunity to share with you some of my views about Fintech, crypto assets and the latest regulatory developments relating to the asset management industry.

Promise or peril?

It's widely known that the first industrial revolution was marked by steam power, the second revolution signified by electric power and the third one came along with digital power. In his book *The Fourth Industrial Revolution*¹, Professor Klaus Schwab said the fourth revolution is fundamentally different. Previous industrial revolutions liberated humankind from animal power, made mass production possible and brought digital capabilities to billions of people.

The fourth industrial revolution is characterised by a range of new technologies that are fusing the physical, digital and biological worlds, impacting all disciplines, economies and industries, and even challenging ideas about what it means to be human.

Professor Schwab said the resulting shifts and disruptions brought by the fourth industrial revolution mean that we live in a time of great promise and great peril. If firms are unable to adapt and regulators fail to regulate new technologies to capture their benefits, shifting power will create significant new security concerns, and societies and markets may fragment.

New technologies have already had a major impact on the asset management industry. One obvious area is that the distribution model for investment funds is increasingly moving from face-to-face to online platforms. When I joined the SFC's Investment Products Division in 2015, I often heard people say that funds must be sold, not bought. Finance is a trust business. Customers buy investment products from a relationship manager or because they trust the bank. That might explain why big banks with wide retail distribution networks account for the sales of over 80% of investment funds in Hong Kong. Banks operate a vertically integrated model. They own the clientele, give investment advice, sell products face-to-face and settle the transactions.

¹ Klaus Schwab, *The Fourth Industrial Revolution* (Geneva: World Economic Forum, 2016).



This kind of model may see changes with the phenomenal rise of investment platforms on the Mainland, such as Lufax, and money market funds bought online, such as Yu'e Bao. Just like retail banks, the tech or insurtech giants own the information of hundreds of millions of customers and operate financial platforms that sell anything from car insurance, to loans, to investment funds. Investment advice is being dispensed online, with artificial intelligence responding to customers' questions. Big data from consumer spending patterns is used to calculate credit scores and to pre-approve loan requests; the mileage logged on a customer's car can be used to tailor the premium on car insurance contracts, and past investment history is used to structure portfolios that best suit investor's preferences.

For asset managers, the advent of Fintech is affecting the way investment products are being distributed, how clients interface and how investment advice is dispensed. It also promises a better customer experience by tailoring products based on big data which reveals investors' preferences or lowering costs by improving the efficiency of clearing and settlement in the back office. But platform sales are not without issues, such as data privacy, outsourcing, and remote account opening and know-your-client (KYC). These have been the subject of extensive discussions among securities regulators at IOSCO² committees and locally among regulators in Hong Kong.

Guidelines on Online Distribution and Advisory Platforms

In light of these new trends, how has the way we regulate been affected?

We believe the use of innovative technology can help make the delivery of financial services more efficient and robust and can potentially lower costs. As a principles-based regulator, we are technology neutral, which means whether a human being or a robot is delivering advice, the standard of care for the customer doesn't change. But how the rules are applied in a digital environment needs to be clarified and if necessary updated.

Our approach could be illustrated by the way we look at the use of instant messaging tools for placing orders. Clients used to place an order by calling brokers on a desktop phone. We require brokers to tape record the phone conversations. In light of the wide use of instant messaging apps, we apply the same principles of central record-keeping and completeness to the new mode of communication. We are consulting the industry with a view to issuing a circular on this soon.

With investment products being increasingly sold online, one important issue for platform operators to address is how to effectively discharge their suitability obligations. On 28 March, the SFC released consultation conclusions on proposed Guidelines on Online Distribution and Advisory Platforms and issued tailored guidance to the industry on the design and operation of online platforms, including specific guidance on the provision of automated or robo-advice.

The guidelines clarify that the posting of factual, fair and balanced materials on online platforms should not in itself trigger the suitability requirement. This recognises that retail investors should be in a position to take responsibility for their decisions to invest in simple products which they can reasonably be expected to understand.

² International Organization of Securities Commissions.



The SFC will implement the requirement for platform operators to ensure transactions in complex products³, whose terms, features and risks are not reasonably likely to be understood by retail investors, are suitable for the client in all circumstances even on an unsolicited basis. To align the online and offline requirements and to ensure a level playing field, we are also consulting the industry on applying the same suitability and disclosure requirements to the distribution of complex products in an offline interactive environment.

A question is often asked: can a platform operator offer investment products such as overseas exchange-traded funds (ETFs) without prior authorisation from the SFC? Take the case of a platform operator which provides execution services for overseas ETFs. The platform does not set out any information about these ETFs, save for information about the exchanges for which it provides execution services, and its clients would only be able to access factual information about these ETFs after keying in the relevant stock codes themselves. This case is unlikely to be captured under Part IV of the SFO. But I would encourage platform operators to seek professional advice about their specific arrangements.

A platform operator which provides investment advisory services or discretionary portfolio management services should have already conducted proper KYC procedures to obtain sufficient information about its clients at the time of on-boarding. If it has a one-to-one advisory relationship with a client, and has taken the client's personal circumstances into account, then if it recommends that the client invest in particular ETFs traded on an overseas exchange, or effects transactions in those ETFs, that is unlikely to amount to an invitation to the public.

RegTech and SupTech initiatives

Next, I turn to RegTech, which is a blend word of “regulatory technology” defined to mean the use of innovative technology to help firms comply with regulations efficiently and cost-effectively. In recent years, the rapid growth of technology-enabled businesses in the securities and futures industry has led to a significant increase in the volume of trading data and the complexity of data relationships.

Our supervisory teams have performed limited data analysis on a trial basis when we inspected selected investment banks and brokers with high volume turnover. When a regulator uses RegTech, I think you can call it SupTech. With the assistance of technology, we have been able to identify irregularities, control deficiencies and non-compliance which would otherwise go undetected. But the process was long as the firm needed to extract the data from multiple systems, and it had to be consolidated, scrubbed, cleansed and validated for the regulator's use.

To simplify this process, we are working with the industry, with the assistance of an external consultant, to develop a common industry standard prescribing the content and format of trading-related data to be kept by firms, which can be easily uploaded to the SFC's platform for analysis. The SFC has also established a data lab to conduct data analysis of high volume data for compliance testing, surveillance and exceptional reporting purposes.

As you may be aware, the number of licensed corporations in Hong Kong grew more than 7% a year for the past five years. The total number of licensed corporations increased 42%

³ See the [guidelines](#) for further details including a non-exhaustive list of examples of complex and non-complex products.



during that period to more than 2,700 firms⁴. The resources available to our supervisory teams haven't grown at anywhere near this rate. This requires us to be more efficient and to use our resources wisely, focusing on areas which pose greater risk.

To enable us to do the job properly, we need more data from licensed corporations. There are a number of statutory returns through which we obtain data from the industry, notably the Financial Resources Rules returns and Business and Risk Management Questionnaire. We are reviewing these and considering ways we can enhance data collection to heighten risk assessment and the use of data analytics. We will be soft consulting the industry on these new initiatives.

Fintech, ICOs and crypto assets

With the aim of engaging the industry and other regulators, the SFC has established a Fintech Advisory Group back in early 2016. I am currently the Chair. We also have a Fintech Contact Point, which opens a channel of communication with businesses which intend to engage in regulated activities through the use of Fintech. Internationally, we also connect with Fintech firms and their regulators overseas through Fintech collaboration agreements.

To date, we have signed separate agreements with FCA (UK), ASIC (Australia), SC (Malaysia), DFSA (Dubai) and FINMA (Switzerland), providing a solid platform for cooperation and referrals between our innovation functions and setting out how we plan to share and use information about innovation in our respective markets.

Last September, we announced the SFC Regulatory Sandbox to provide a confined regulatory environment for qualified firms to operate regulated activities before Fintech is used on a fuller scale. Licensing conditions may be imposed on firms going into the sandbox. More intensive dialogues may be conducted for firms inside the sandbox for us to be satisfied that the necessary internal controls are in place to mitigate any risks arising from the novel features of the services they offer. Part or all of those conditions may be lifted upon exit from the sandbox.

We also clarified in a circular that a Responsible Officer (RO) applicant's technology experience may be counted toward "relevant industry experience", provided that the RO has been a key person developing or ensuring the proper functioning of a technology platform which is central to the delivery of financial services.

As a securities regulator, the SFC is mandated to protect the investing public by enforcing our rules and regulation. While we acknowledge that innovative technologies such as blockchain have the potential to improve efficiency and financial inclusion, that does not entitle anyone to conduct fundraising from the public in violation of securities law. Because of the highly technical content and opacity of some of these projects, it is hard for an average investor to pick winners, a job more suited for professional investors such as venture capital funds.

Further complicating matters, many of these fundraisings are dubious, if not downright frauds. The issuers escape the scrutiny of the police or securities regulators because of their cross-border nature and the way the crypto assets are structured to fall outside any regulator's perimeter.

⁴ As of 31 March 2018.



Many millennials who subscribe to digital tokens in ICOs⁵ understand that there is no intrinsic value in the tokens but are betting on the rapid rise of the token value in the secondary market. The mercurial rise and fall of Bitcoin prices has fanned a trading frenzy in crypto assets and helped the emergence of crypto exchanges in Asia, subject to little or no regulatory oversight.

The high volatility of crypto assets and serious hacking incidents in Japan and Korea in the past few months resulting in hundreds of millions in US dollar losses should serve as a sharp reminder of the risks associated with such trading.

The primary offer and secondary market trading of crypto assets and related products have earned a central place on the worry list of regulators around the world. In March, G20 leaders who met in Argentina called for IOSCO and other standard-setting bodies to continue their monitoring of crypto assets and their risks. So far, the regulatory response has been diverse. It ranges from complete ban of ICOs and crypto exchanges to full regulation of such activities.

In Hong Kong, if the digital tokens involved in an ICO fall under the definition of “securities”, dealing in or advising on such digital tokens, or managing or marketing a fund investing in them, may constitute a regulated activity. We cautioned that parties engaging in a regulated activity targeting the Hong Kong public are required to be licensed by or registered with the SFC, irrespective of where they are located. Last year we warned the industry against fundraising and dealing activities without a license⁶.

In February and March, we took regulatory action against a number of ICO issuers and crypto asset platform operators. In one case, Black Cell Technology Ltd halted its ICO to the Hong Kong public and agreed to unwind transactions for Hong Kong investors following regulatory action by the SFC over concerns that Black Cell had engaged in potential unauthorised promotional activities and unlicensed activities. In other cases, securities tokens were removed from the shelf of trading platforms. We will continue to police the market and enforce where necessary.

Last but not least, we are coupling our enforcement action with investor education. We collaborate closely with the Investor Education Centre to issue educational materials and participate in public education campaigns about the risks associated with ICOs and crypto assets.

Conclusion

Ladies and gentlemen, we live in a brave new economy. It was only ten years ago, when I took my family on a trip to Xinjiang and found myself carrying thick stacks of 100 renminbi banknotes to pay for two weeks of food and lodging because no credit cards were accepted. You can't even pay for a cab ride or buy a watermelon off a roadside stall with cash on the Mainland these days. And forget about Visa or American Express. They take only Alipay and WeChat Pay. We watch with awe how social media and new, innovative technologies have transformed the Mainland from a cash society to virtually cashless in just one generation.

⁵ Initial coin offerings.

⁶ [Circular to Licensed Corporations and Registered Institutions on Bitcoin futures contracts and cryptocurrency-related investment products](#) (December 2017) and [Statement on initial coin offerings](#) (September 2017).



Let me circle back to Professor Schwab's Fourth Industrial Revolution – the promise and peril theory. The stakes appear to be high. If Professor Schwab is right, we may be at a juncture of this revolution where the ability to capture the benefits would yield great rewards, but failure to do so will result in disaster. No doubt, the industry is staying ahead with Asset Management 2.0, applying new technologies to create efficiencies in both the front and back office and to provide a better customer experience.

As regulators, we should ensure that our regulatory framework accommodates the use of new technologies which help make the delivery of financial services more robust, efficient and inclusive. But we should also be vigilant in addressing the new risks associated with the use of new technologies. In this age of change and revolution, I can assure you that there are core values that don't change – namely, the general principles set out in the Code of Conduct⁷ and also that the protection of the interest of the investing public in the New Economy is exactly the same as in the Old Economy.

Thank you.

⁷ Code of Conduct for Persons Licensed by or Registered with the Securities and Futures Commission.