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"THE GEEKS SHALL INHERIT THE EARTH": TWO-WAY INFLUENCES AMONGST FINTECH, FINANCE AND LAW

CHEW JIA YI JOAN

INTRODUCTION

"The geeks shall inherit the earth" is a phrase articulated by a Fintech company in Silicon Valley.[1] While the "geeks" behind Fintech may not yet have taken over Singapore, Singapore was recently named as one of the world's top 2 Fintech hubs.[2] Clearly, Fintech will continue to influence local society, in particular its financial industry. This article aims to evaluate the two-way influences amongst Fintech, the financial industry and legal regulation mechanisms, as well as consider plausible future developments to their relationship.

A. *Definition of Fintech*

Fintech represents the innovative convergence of "finance and "technology". It can be defined at both the service and industry levels. In terms of a service, it involves the provision of financial services using new technologies, such as mobile phones and the Internet. In terms of industry, it refers to a non-financial business providing services such as payment without collaborating with a

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[1] Ravi Menon, "A Smart Financial Centre" (Keynote Address delivered at the Global Technology Law Conference, 29 June 2015), online: <www.mas.gov.sg/news-and-publications/speeches-and-monetary-policy-statements/speeches/2015/a-smart-financial-centre.aspx> [Menon, "A Smart Financial Centre"].

[2] Jun Jie Woo, "To be a FinTech Hub, Singapore Needs RegTech", *Today* (27 October 2016), online: <todayonline.com>.

company specialising in financial services.[3] Some well-known examples of these are Apple Pay and Alibaba's AliPay.[4]

B. *General Social Impacts*

One of the areas in which Fintech is most relevant to the average Singaporean's life is perhaps digital payments. Across the world, mobile payments alone were expected to grow by 60.8% in 2015, largely due to regulators' willingness to allow new Fintech companies to operate without a banking license.[5] Another important factor for this was new technology allowing for the implementation of novel solutions at far less than what it would have previously cost.[6] In addition, the continued recovery of mature economies was also a contributing factor.[7] Given the predicted stabilisation of global markets rather than strong growth,[8] it is plausible that the rapid growth of Fintech services might slow down, but it is unlikely to stop completely.

On a larger scale, Fintech might be able to help hedge the financial consequences of an aging society, such as through peer-to-peer (P2P) lending services.[9] Singapore is unquestionably a rapidly ageing society, with over 25% of the population reaching old age by 2030.[10] The exact impact of Fintech on an aging society remains to be seen, but there will probably be some form of impact in future as both these elements are here to stay.[11]

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[3] Yonghee Kim, "The Adoption of Mobile Payment Services for "Fintech"" (2016) 11:2 IJAER 1058.

[4] *Ibid.*

[5] Ross P Buckley & Ignacio Mas, "The Coming of Age of Digital Payments as a Field of Expertise" (2016) 1 U Ill J L Tech & Pol'y 71.

[6] *Ibid* at 78.

[7] *Ibid* at 71.

[8] Interview of Franziska Ohnsorge, Chief Economist, Development Propsects Group, World Bank by Grzegorz Siemionczyk (21 January 2016) at online: <www.worldbank.org/en/news/opinion/2016/01/21/it-is-not-then-that-the-global-economy-has-returned-to-normal> .

[9] Christopher Chan, "Hedging the Aging Society: Challenges to the Insurance Market and Law in Singapore" (2016) [unpublished, archived at Social Science Research Network Electronic Library] at 13-14.

[10] *Ibid* at 1.

[11] Chan, *supra* note 9 at 14.

FINTECH'S INFLUENCE ON THE FINANCIAL INDUSTRY AND ITS REGULATORS

Apart from impacts on society in general, it is likely that Fintech will have a strong influence on the financial services sector. As the legal and financial industries are closely connected, the impact of Fintech on the legal sector cannot be ignored as well. An analysis of such an impact is important given the significance of the financial and legal industries in Singapore—these industries are critical for Singapore to maintain its status as a regional economic and legal hub.[12] As the influence of Fintech in the local context might not be completely visible at present, relevant examples from other jurisdictions will also be mentioned.

A. *Fintech Services Offered by Banks*

Some Fintech services offered by banks can be said to be at odds with some of the core principles traditionally governing banking operations. Firstly, banks have traditionally been proponents of calculated risks, such as their facing the risk of mortgagees being unable to pay back their mortgages in an economic downturn. This is because they have the chance to profit from such risks if their calculations are accurate. However, in the market of certain Fintech services such as digital payments, there is a focus on minimising risk because profitability does not stem from such risks.[13] Secondly, building good relationships with customers has always been important in banking, but Fintech services such as digital payments do not place as much emphasis on the quality of relationships with customers.[14] As such, it is plausible that there may be an eventual separation of the banking and Fintech industries.[15]

However, there are some areas in which the fundamental principles governing Fintech and banking operations have not been in direct conflict. Rather, in these areas, Fintech has merely resulted in a shift in the type of business banks undertake. Such a shift would be beneficial for

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[12] Sarah Kogan, "Singapore's Legal Sector: The Fight for Market Share", *The Business Times [of Singapore]* (15 February 2015), online: <businesstimes.com.sg> .

[13] Buckley & Mas, *supra* note 5 at 73.

[14] *Ibid* at 75.

[15] *Ibid* at 87.

financial regulators. For instance, in the wake of the 2008 financial crisis, banks have acknowledged the importance of transactions, apart from their traditional risk-taking, as a means of generating profit. The ability of digital payments to facilitate such transactions would complement, rather than hinder, the banks' developing an ideal transactional framework.[16] Indeed, Internet banking has resulted in at least 50% of over-the-counter payments in some Chinese banks.[17] Given that it might be harder for banks to check the authenticity of a customer's over the Internet as compared to looking at the physical person, legal regulations focusing on Know Your Customer (KYC) and Anti-Money Laundering (AML)[18] regulations will only continue to grow in importance. Indeed, the Monetary Authority of Singapore (MAS) has recently embarked on a project to create a national KYC utility, and has acknowledged that there might even be a need for more advanced types of KYC guidelines.[19]

B. *Fintech services offered by companies other than banks*

As for Fintech services belonging to non-financial companies, there has been a rise of services that threaten the very existence of the formal banking sector. These companies, with their services such as Bitcoin, involve peer-to-peer networks managed by the Internet community.[20] This compromises the need for financial institutions in this area. This development also potentially makes it harder for legal regulations, as there are arguably more parties to regulate than in traditional banking. However, at the same time, this obstacle is not insurmountable as some Fintech services leave a permanent financial record of each transaction through usage of

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[16] *Ibid* at 77.

[17] Weihuan Zhou, Douglas W Arner & Ross P Buckley, "Regulation of Digital Financial Services in China: Last Mover Advantage?" (2015-2016) 8: Tsinghua China L Rev 25 at 35.

[18] Alan Gelb, "Balancing Financial Integrity with Financial Inclusion: the Risk-based Approach to Know Your Customer" (2016) Center for Global Development Policy Paper 74.

[19] Ravi Menon, "Singapore's Fintech Journey—Where We are, What is Next" (Address at Singapore FinTech Festival—FinTech Conference, 16 November 2016), online: <www.mas.gov.sg/News-and-Publications/Speeches-and-Monetary-Policy-Statements/Speeches/2016/Singapore-FinTech-Journey.aspx>.

[20] Buckley & Mas, *supra* note 5 at 79.

blockchains.[21] This would be of some comfort to regulators as it would aid in their continuing to play their roles effectively.

Furthermore, Fintech services might also benefit regulators of traditional financial institutions in terms of reducing their workload. The new Fintech companies will be able to help traditional financial institutions achieve some of the outcomes that legal regulators have been aiming to achieve with the financial sector, such as developing Singapore into an international financial centre.[22] To do so, legal regulators have to ensure financial institutions cut costs and deliver quality financial services. Fintech companies can help regulators achieve such outcomes through competition. For instance, American Fintech start-up Lending Club's expenses as a share of its loan balance is about 2%, less than half the equivalent for conventional moneylending services.[23] This results in better deals for customers, who are increasingly shifting away from traditional banking platforms. Hence, such competition will force financial institutions to work towards the goals that regulators have been setting for them all along,[24] helping regulators in this respect.

RESPONSE OF THE FINANCIAL INDUSTRY AND ITS REGULATORS TO FINTECH

Although the shift towards Fintech has not been a total bed of roses for financial institutions and their regulators, they have tried to keep abreast of developments in this area and ensure their continued relevance.

For instance, banks might actively take steps to hinder the development of Fintech. This is because banks have no clear financial incentive to support Fintech start-ups. On the contrary, some aforementioned aspects of their operations are arguably threatened by Fintech start-ups. Such steps are apparent in countries such as the United Kingdom, where HSBC and Barclays

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[21] Michael Mainelli & Alistair Milne, "The Impact and Potential of Blockchain on the Securities Transaction Lifecycle" (2016) SWIFT Institute Working Paper No 2015-007 at 3.

[22] Monetary Authority of Singapore, "Overview" <www.mas.gov.sg/About-MAS/Overview.aspx> (accessed 28 November 2016).

[23] "The Fintech Revolution", *The Economist* (9 May 2015), online: <economist.com> .

[24] Menon, "A Smart Financial Centre", *supra* note 1.

have closed the accounts of some digital currency operators and refused to give them merchant identification for receiving direct debit payments.[25]

Such pushback from financial institutions leads to a greater role for legal regulation in the financial industry as a whole. For instance, during his term in office, former United Kingdom Chancellor of the Exchequer George Osborne promised legislation to help Fintech firms obtain capital. This included a proposal to force banks who refuse to grant them loans to refer them to alternative sources of funds, such as crowdfunding.[26] It is plausible that given the context of both Singapore and the United Kingdom aiming to become Fintech hubs,[27] Singapore might also introduce similar regulations to actively aid Fintech start-ups resolve cash flow issues.

An area in which Singaporean regulators are already helping Fintech companies is their navigation of the complex legal landscape. At present, apart from the aforementioned KYC and AML regulations, there are many other regulations that both banks and Fintech start-ups have to deal with in launching their services. Despite such regulations aiming to make Fintech safe for society to utilise, some of them may not have fully caught up with the novel business models that Fintech services employ, which would hinder true innovation in the field.[28] In response to this problem, the MAS has recently allowed banks and Fintech start-ups to apply to join a 'regulatory sandbox', in which certain legal and regulatory rules will be relaxed to allow for the testing of new Fintech services.[29] Companies will then be able to focus on developing their services while only focusing on compliance with the more important regulations which will not be relaxed during the 'sandbox' phase, such as some AML rules.[30] Should these experiments prove

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[25] Martin Arnold & Sam Fleming, "Regulation: Banks Count the Risk and Rewards", Financial Times (November 14, 2014), online: <ft.com> .

[26] Arnold & Fleming, supra note 25.

[27] *Ibid.*

[28] "Piecemeal Regulation is Hindering US Fintechs", *Business Insider* (17 October 2016), online: <businessinsider.com> .

[29] Monetary Authority of Singapore, Media Release, "MAS Issues "Regulatory Sandbox" Guidelines for FinTech Experiments" (16 November 2016), online: MAS Media Releases <www.mas.gov.sg/News-and-Publications/Media-Releases>.

[30] Weilun Soon, "MAS Issues Guidelines for Fintech Regulatory Sandbox", *The Business Times [of Singapore]* (16 November 2016), online: <businesstimes.com.sg> .

successful, the Fintech services would be applied on a broader scale, upon which they would then comply with all relevant legal regulations. Thus, this scheme will aid both banks and Fintech start-ups to better understand the relevant regulations and comply with them, without stifling their experimentation.

Greater legal regulation may also lead to increased popularity of Fintech services amongst the general population Increased government regulation of the Fintech sector may help to overcome ordinary consumers' security-related concerns regarding Fintech. For instance, online payment systems, particularly those involving P2P transfers, may be more vulnerable to personal data theft than traditional payment methods.[31] It also does not help that there has been a steady rise in scams involving online credit transfers, such as when sellers do not deliver goods after the buyer has paid for them online.[32] This comes despite companies such as PayPal helping buyers obtain refunds from errant sellers.[33] This indicates a plausible role for greater legal regulation to prevent exploitation of innocent users of Fintech services. With greater regulatory control over the sector, potential Fintech users may have these fears allayed. This would thus aid the growth of the local Fintech customer base.

CONCLUSION

In conclusion, it has been shown that there is a strong influence by Fintech on existing financial institutions and their regulators. Although Fintech has resulted in banks facing more difficulty in certain aspects of their operations, it has arguably benefitted financial regulators in some areas, such as through increasing their relevance. Vice versa, banks and regulators can also hinder or aid the growth of the Fintech sector, though it seems that regulators are playing a greater role in Fintech's expansion. Indeed, Commentators have suggested that regulators can do even more to aid the shift towards Fintech, such as through facilitating the establishment of courses focusing

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[31] Jennifer Windh, "Peer-to-peer Payments: Surveying a Rapidly Changing Landscape" (2011) Federal Reserve Bank of Atlanta at 17.

[32] Huiwen Ng, "$1m Lost to Online Purchase Scams", The Straits Times (28 November 2016), online: <straitstimes.com> .

[33] Windh, *supra* note 31 at 18.

on digital financial services for students trained in business and Information Technology (IT).[34] Although all governments face restricted ability to undertake regulatory commitments,[35] this limitation might be particularly pertinent in Singapore where resources are generally scarce. Thus, it would be ideal if regulators could find low-resource ways to better regulate the "geeks" behind the Fintech sector, enabling its growth while increasing protection of users.

[34] Buckley & Mas, *supra* note 5 at 86.

[35] Joseph E Stiglitz, "The Role of the State in Financial Markets" (Paper delivered at the World Bank Annual Conference on Development Economics, 1993), (1994) Proceedings of the World Bank Annual Conference on Development Economics 19 at 33.