ASIA PACIFIC RISK CENTER: PUBLIC POLICY SERIES

HOW TO TRAIN YOUR DRAGON

POLICY RECOMMENDATIONS FOR GROWING THE FINTECH SECTOR IN ASIA PACIFIC
DRIVING GROWTH IN FINTECH

The emergence of financial technology (fintech) brings to market new solutions to increase efficiency and financial inclusiveness in areas of payments, lending, broking, trading, capital raising, and personal financial management, among others.

The role of managing the development of fintech in any market typically falls to the government and financial regulators, who have played either a supporting or inhibiting role for new entrants. As fintech continues to develop across the world, countries have been forced to embrace new financial technologies in order to remain competitive.

In Asia-Pacific (APAC), many governments and regulators have made the development of fintech an explicit policy objective in recent years. Driven by a desire to increase financial inclusion\(^1\) for significantly “unbanked” or “underbanked” populations, governments have successfully accelerated the growth of fintech financing in the region (Exhibit 1). However, this rapid growth of the fintech sector has the potential to expose systemic risks for the banking sector and the broader economy. Besides being the main enablers of accelerating access to financial services, policymakers, governments, and regulators are often tasked with the challenge of facilitating and ensuring fintech develops in a way that minimizes the risks to the financial system and society as a whole.

In that context, there are several aspects that needs to be prioritized (Exhibit 2):

SUPPORTING GROWTH: THE ROLE OF REGULATORS AND GOVERNMENT

The main objective of regulators and government in developing the fintech sector is to empower consumers where conventional banks are lagging\(^2\) – to improve efficiency, increase financial inclusion and to increase access to financial services, all while stimulating innovation and competition.

There are three main actions that regulators and governments must take to ensure the smooth development of a thriving fintech landscape – (1) Provide innovation support, (2) Ensure a conducive investment environment, and (3) Enhance digital and financial infrastructure.

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**Exhibit 1: Global and Asia-Pacific Fintech Investments**

<table>
<thead>
<tr>
<th>Year</th>
<th>Asia-Pacific</th>
<th>Rest of the World</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2011</td>
<td>0</td>
<td>0</td>
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<td>2012</td>
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<td>2013</td>
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<td>2014</td>
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<td>0</td>
</tr>
<tr>
<td>2015</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2016</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Source:** APRC analysis on CB Insights data

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1 The Business Times, 2018. ASEAN to use fintech as financial inclusion boost.
SUPPORT INNOVATION

DESIGN REGULATIONS TO ALLOW EXPERIMENTATION

Over the last two years, one of the main policy tools used to support the development of the fintech sector has been the creation of regulatory “sandboxes” (see Exhibit 3).

This learning process allows new entrants to test their business ideas with real customers and better understand relevant regulatory boundaries. Meanwhile, adequate oversight from regulators and policy-makers during this process also allows for more learnings regarding new fintech entities before actual regulations are mandated for their products and services.

THE ART OF POST-SANDBOX REGULATORY APPROVAL

The process of final regulatory approval before the “go-live” of any fintech company is another area of increasing importance. This final stage is currently a site of significant uncertainty amongst fintech professionals, who undertake a highly iterative process going through multiple rounds of review with the regulator teams. These concerns dampen investor appetite and can prevent fintech innovations from going to market, but are necessary processes that discuss overall business plans, risk management frameworks, and reporting requirements. Given that most new entrants to the fintech sector are likely to graduate from the sandbox into the final approval process, dedicated teams of financial regulators need to manage “final stage” fintech approvals and licensing and work closely with teams who run the regulatory sandboxes to ensure that the right fintech entrants reach maturity.

INVEST

Governments and regulators are also key to creating the right investment environment for fintech companies to pave the way to greater access to capital.

IMPROVING THE INVESTMENT ECOSYSTEM

The role of governments and regulators is imperative for developing the fintech sector, but specific approaches in creating a conducive investment environment may need to differ from one country to another.

In China, the government has maintained a laissez-faire approach to private fintech investors, choosing not to interfere by providing benefits or subsidies such as tax breaks. China appears
to be a unique example though – in most of the other Asia-Pacific markets, private funding is less abundant, resulting in governments having to take more proactive measures to encourage fintech investment. In 2018, the Australian government revised and expanded their investor tax incentive scheme to support fintech start-ups; Singapore and Hong Kong have also maintained tax incentives for fintech investors.

HAVING A MEASURED APPROACH

Where necessary, governments often channel funds into the fintech sector through a mix of development grants and direct investment. Such funding ranges from providing interest-free grants and seed funds, to prudently allocating resources, to directly funding more promising fintech start-ups, to indirectly supporting venture capital (VC) firms to invest into these new fintech entrants.

Development grants for fintech start-ups are regarded as a crucial source of early funding to initiate product development during the testing phase. The Hong Kong government for example launched the Innovation and Technology Venture Fund worth HKD 2 billion (US$ 256 million) for co-investments in promising fintech start-ups. This Fund has already announced five VC funds as co-investment partners for identifying promising investment targets in Hong Kong.

Besides early-stage seed funds, governments also make direct investments into fintech companies through sovereign wealth funds. These investments are made with the longer-term view of the potential impact on the market and are both financial and strategic in nature. However, such direct investments tend to be targeted at more mature fintech companies.

While direct government investment is important, it needs to be done in a way that does not compromise the free market. Government direct investment into “national champions” has rarely been successful and creates more problems than it solves. It usually drives a premature selection of winners and losers and undermines the free market through undesirable crowding out effects.

The best approach is for governments to identify the gaps in funding in different stages but take a passive investor approach through investment in local private VCs in order to avoid government crowding out effects. This usually ensures innovation, while promoting a level-playing field.

INFRASTRUCTURE

In addition to regulating and attracting capital in developing fintech, regulators and governments are also key builders of the foundations needed to support the fintech sector.

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TELECOMMUNICATIONS AND INTERNET COVERAGE

One of the fundamental bases of developing a successful fintech sector is a well-established information and communication technology (ICT) sector. A well-developed technological infrastructure allows easy adoption of new fintech technologies.

In larger developing markets, many fintech applications focus on extending financial services to unserved and underserved sectors of the population. The large geographical spread and lack of physical infrastructure available for these populations create transmission and distribution challenges, as well as a high cost to serve. As a result, mobile networks become the key financial services distribution channel. Countries such as India and Brazil see high levels of fintech adoption in payments, credit and savings services, driven by a strong foundation of broad mobile coverage.

Many fintech solutions, particularly those that incorporate cloud-based data portals or platforms, require a robust backbone of online connectivity for day-to-day operations. Blockchain platforms also require consistent connections to maintain registers and run authentication.

CENTRALIZED PAYMENTS SYSTEM

Increasingly, governments are recognising the importance of e-payment infrastructure in creating a conducive fintech environment and broadening the digital economy. Regulators typically hold sole authority for supervision and oversight of their nation’s payments infrastructure and are responsible for managing and integrating the various services that make up the platform.

However, setting up a national payment infrastructure is not without practical challenges. Launched in April 2016, India’s Unified Payments Interface (UPI) was seen by many as a success – many major international and local firms use the system as their payment infrastructure (such as Jet Airways and WhatsApp), resulting in the steady growth of UPI transactions. However, more than 90% of UPI transactions remain peer-to-peer, and the system has not been able to scale up commercial transactions which reduces its economic value.

DATA SHARING CAPABILITIES

Finally, fintech products and services are limited without a supporting framework to ensure data is accessible to fintech companies. The wealth of financial and behavioral data owned by incumbents is both a major competitive advantage and a huge barrier to entry. As such, governmental intervention and any regulatory imperative to share this data across platforms catalyzes the development of fintech companies.

There are, however, technical challenges and liability issues related to data sharing. Conforming to universal data standards will be costly, as banks will be required to update or map legacy systems to fit the new data standard specifications. Scaling this framework will also run into challenges, as new agreements with relevant parties and legacy data systems will all need to be revised. Devising a direct-access platform open to Third Party Providers (TPPs) will also place a burden on banks that may not wish to adequately open the market.

Further, regulators and governments need to understand the importance of metadata to increase traceability and address any liability issues that may arise when data is shared between traditional banks and fintech entrants. Essentially, the use of universal metadata standards enables the mapping of complex, intricate, and ever-evolving relationships across entities, strengthening governance and building confidence in the system.

PROTECTING STABILITY: REGULATORY REFORMS FOR RISK MANAGEMENT

There are several key risk management considerations that governments ought to focus on as they drive the growth of their fintech sector. Financial innovation reduces costs and improves efficiency, but it also introduces new risks to economic and financial stability, hence presenting new challenges for supervisory authorities. As illustrated in Exhibit 4, a fintech regulatory program needs clear goals of ensuring financial stability, coordination among cross-sector regulators, and strong customer protection and empowerment.
MAINTAINING FINANCIAL SYSTEM STABILITY

While there are currently no compelling signs of fintech financial instability risks materializing, some emerging (macro-prudential) risks would escalate quickly if left unchecked. For example, fintech may gain prominence through indirect network effects between highly-connected entities in the form of market infrastructure, so much so that the importance and prevalence of network complexity and associated contagion effects could be significant. In time, fintech may grow to become systemically important, exhibiting concerning trends such as interconnectedness and centrality issues, among others.

Thus, regulators and government bodies will benefit from closely monitoring fintech companies, especially those that provide banking services and that may grow systemically important in terms of size, complexity, interconnectedness, substitutability, and global (cross-jurisdictional) activity. Regulators and governments may take reference from the denominators under the G-SIB framework to proxy the systemically importance selection criteria for selected fintech entities.

Before any fintech entities grow too big and become systemically important, authorities should be proactive and agile in policy-making to respond to the ever-evolving fintech space. Regular review of the regulatory framework is necessary to monitor growth and product evolution. Regulators have developed very sophisticated techniques that allow easy and non-intrusive monitoring process. However, some of the most successful approaches like social listening and other advanced analytics create legal issues. Because these approaches are sometimes able to predict issues before they even occur, they might be legally challenged by market participants.

REGULATING CROSS-SECTOR INSTITUTIONS

Fintech is growing the frequency and complexity of interactions between technology, financial services, telecommunications and other sectors, such that a new supervisory system needs to be

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designed to address the corresponding risks to financial stability. The same traditional regulatory framework cannot be applied universally across banking, non-banking, or fintech companies, as standalone and uncoordinated regulations could lead to fragmentation. This will give rise to businesses easily and quickly moving jurisdictions to take advantage of and arbitrage the traditional regulatory framework.

Regulators are starting to address this issue. In 2017, the Asia Securities Industry & Financial Markets Association published their guidelines on best practices for regulating the effective development of fintech. In particular, one of the guidelines aims to ensure cross-sectoral and transboundary policy harmonisation to enhance inter-agency cooperation and promote consistency across different sectors.

One emerging trend is activity-based regulation. The purpose of activity-based regulation is to move away from regulating entities and regulate the actual financial activities those entities are performing. That helps address the issue of industry arbitrage and allows for easier synchronization across regulators.

EMPOWERING AND PROTECTING CONSUMERS

Finally, regulators and governments need to be more proactively involved in protecting the consumer.

PRIVACY RISKS

While greater financial inclusion can empower consumers by providing them with lower credit costs and better services, it can also raise
privacy and legal issues, most notably unfair lending scrutiny and privacy intrusion concerns. Examples of such biased assessment could include consumers being rejected for mortgage loans or credit lines based on medical history, or candidates being refused employment based on internet usage or social media data.

Regulators have taken aggressive steps to protect data privacy. For example, the General Data Protection Regulation (GDPR) was approved by the EU parliament after years of preparation and debate. It is a progressive first step to protecting the consumer and stakeholders around the world have been monitoring this new regulation and adopting it across other jurisdictions.

In mitigating privacy risks, the GDPR aims to empower individuals through full control of their personal data. It mandates explicit consent for use of collected data. This increases responsibility, accountability, and transparency to individuals and reduces the threat of data breaches.

In addition, the financial services sector is the most frequently targeted industry by cyber-criminals, accounting for almost one-quarter of all breaches in 2017. Financial companies sit on vast amounts of financial assets and personal information – making them attractive targets for cyber criminals. Further, the growing collaboration between Fintech entrants and incumbent institutions expands the interconnectedness and network complexity across the financial services infrastructure. This widens points of vulnerability for cybercrimes.

Regulators and government agencies need to send a clear message to financial services companies responsible for large amounts of consumer data, whether they are fintech companies or traditional financial institutions, stressing the heightened need to implement cybersecurity measures with improved levels of compliance. Regulators also need to increase international collaboration on cyber security and aim to standardize key cybersecurity rules.

Exhibit 6: Proactive measures are necessary to protect consumers from financial misconduct amidst the rapid digitalization

<table>
<thead>
<tr>
<th>INNOVATIVE PRODUCTS CREATE OPPORTUNITIES FOR MISCONDUCT...</th>
<th>SO REGULATORS NEED TO BE MORE PROACTIVELY INVOLVED...</th>
<th>TO ENSURE FINANCIAL STABILITY</th>
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</thead>
<tbody>
<tr>
<td>Mobile devices and E-wallets</td>
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<td>Deposit/Investment accounts</td>
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<td>Payment provider</td>
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<td>Lending</td>
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<td>Investments in Nonperforming loans</td>
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<td>Investment</td>
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<td>Data misuse</td>
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<tr>
<td>Cyber-attacks</td>
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<tr>
<td>Emerging technologies (e.g. cloud, IoT)</td>
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<tr>
<td>LEGISLATING</td>
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<tr>
<td>Regulations, standards, and guidelines on new products and consumer protection</td>
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<tr>
<td>REGULATING AND MONITORING</td>
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<td>Be proactive in identifying potential fraudulent fintech players and “Ponzi” schemes</td>
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<tr>
<td>EDUCATING</td>
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<td>Educate customers better on credit risks, investment risks, and privacy breach implications</td>
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<td>Empower consumer</td>
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<tr>
<td>Protect system and economy</td>
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<tr>
<td>Protect consumer</td>
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</tbody>
</table>

Source: Oliver Wyman analysis
MISCONDUCT RISKS

The creation of new products may blur the definitive boundaries of what financial products entail, allowing some fintech firms to fall through the cracks of regulatory capabilities that often lag technology advancements. As such, the deployment of new products is mostly unregulated and brings about potential compliance risks, as illustrated in Exhibit 6.

Innovative financial products and services often create opportunities of misconduct, as technology can magnify the potential of unlawful actions that were once subjected to intense regulatory detection. This is compounded by the uncertainty around the ownership of consumer data and what is considered appropriate for use and sharing on third-party platforms.

The second and even more important issue is of machine misconduct. The automation of financial processes is increasingly replacing tedious and repetitive data-driven algorithms. For example, once face-to-face conversations with local bank managers been replaced with automated customer services via AI chatbots. However, the over-reliance on these automated decision-making processes can result in systematic errors and/or conceal biases, such as discrimination based on race, religion, or geographic locations.

The increased speed of automation also spreads errors much faster and further, exacerbating contagion effects. Further, the opaque nature of “black-box” machine learning processes has the means to hide biases that may be hard to identify, creating intended or unintended systematic errors that may be blinded by transparency implications. Besides putting in place various regulations and monitoring framework to proactive identify potential mis-conduct, regulators and government bodies need to better educate consumers on the emerging risks of tomorrow’s fintech sector.

CONCLUSION

Done right, the management of Fintech development can have dramatic effects on an economy. The expanding reach of internet and smartphone penetration means that fintech can become a vehicle for financial inclusion for the unserved and underbanked consumer, as well as for small and medium-sized firms. This can increase liquidity for banks, disposable incomes for consumers, and give small and medium-sized businesses better access to much needed financing. Financial inclusion also has important implications for tax collection. Fintechs can aid in the formalization of money and dramatically shrink gray economies.

The digitization of industries also generally increases efficiencies and pushes workforces and firms to evolve. Facilitating innovation and efficiencies in the fintech sector will spur the emergence of adjacent digital sectors as well, such as advanced analytics and AI. Governments and regulatory agencies should not view fintech as a threat to the financial sector, but as a means to strengthen it. Innovation led by fintech will help the sector by creatively eliminating structural inefficiencies and developing competitive products and services.

Thus, it is crucial that fintech services become integrated into the everyday lives of consumers, as much as fintech becomes mainstream in financial services. Governments and regulators have a pivotal role to play in developing these services: they must become both incubators and inhibitors of the sector, while balancing the evolutionary and revolutionary approaches.
Oliver Wyman is a global leader in management consulting that combines deep industry knowledge with specialized expertise in strategy, operations, risk management, and organization transformation.

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