

ASEAN PATH

*Navigating the **FinTech** Revolution*

Introduction

Financial services sectors around the globe are undergoing one of the biggest transformations in history, the fintech revolution.

The latest evolution of fintech represents a world of opportunity in the context of the uncharted regulatory terrain that we, as practitioners and stakeholders alike, are hurtling into at breakneck speed. The future is here and it is nothing less than exhilarating.

The natural side-effect of technological innovation is disruption. Traditional financial institutions are being forced to adapt their systems and operational processes to address the disruption created by newer technologies and increasing competition from tech companies and start-ups. They must begin facing up to these newly emerging realities or run the risk of becoming redundant and obsolete. Regulators are similarly being tasked with the challenge of grasping new technological concepts while trying to strike a balance between continued financial stability and encouraging the pursuit of on-going technological innovation.

The first section of this edition of ASEAN Path explores the various evolutions of fintech, from its inception in 1866 to the rapidly expanding sector it is today in 2018. We then provide an overview of the current challenges faced by regulators across multiple jurisdictions, due to the speed with which technological disruption is impacting and shaping the financial services industry.

The second section will discuss how the ASEAN region is strategically positioned to benefit from the global fintech revolution and examine, on a country by country basis, how the regulatory landscape is shifting across the region.

We hope that this edition of ASEAN Path will provide you with some helpful guidance on recent fintech developments within ASEAN. As always, we welcome the opportunity to share and discuss more specific legal and tax services concerning fintech in any of the countries where DFDL or its associated firms operate.

ASEAN Path is a series of white papers prepared by DFDL's experts aiming to assess, in more depth, compelling issues arising from the regional economic integration under the auspices of the Association of Southeast Asian Nations ("ASEAN") Economic Community Blueprint. The articles are based on an in-depth legal analysis of the local and ASEAN legal framework from the perspective of a practitioner assisting foreign and ASEAN investors in their investments and operations through various ASEAN Member States. All articles are accessible on our website: www.dfdl.com.



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Understanding the FinTech Revolution

Over the last decade, the world has been witnessing a paradigm shift in the financial services sector, the fintech revolution. Before addressing the regulatory developments underway in each ASEAN country, it is important to clearly understand what fintech is, and how it is affecting the financial services sector and related financial regulations.

What is Fintech: A Not so “New Concept”

While the term “fintech” only entered the public lexicon sometime in 2011, the concepts it refers to have been around since the late Nineteenth century. Fintech is a term used to encapsulate the evolving intersection of financial services, software, and innovative technologies. Fintech’s participants range from established technology and banking giants, to SMEs and start-ups.

Fintech is not a “new” concept. The idea of integrating financial services and technology has actually been around for over 150 years. What we are seeing today is fintech 3.0, merely the latest in a series of evolutions in this sector.

The humble beginnings of fintech 1.0 can be traced back to 1866 with the laying of the first transatlantic cable. The game-changing effect this cable had not only on the financial services sector, but on the scale of global interconnectivity as a whole, can be summarized in the following quote by John Maynard Keynes in 1920:

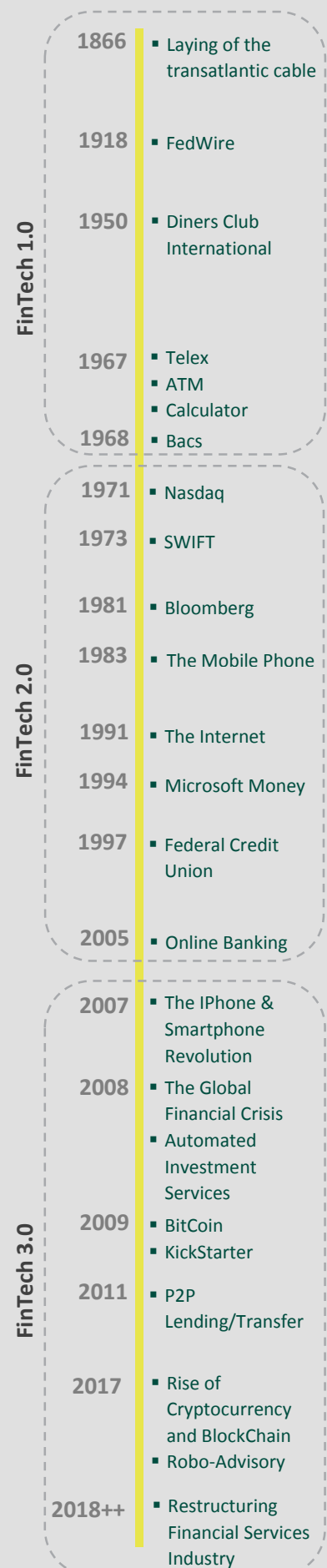
“The inhabitant of London could order by telephone, sipping his morning tea in bed, the various products of the whole earth, in such quantity as he might see fit, and reasonably, expect their early delivery upon his door-step; he could at the same moment and by the same means adventure his wealth in the natural resources and new enterprises of any quarter of the world, and share, without exertion or even trouble.”

Fintech 1.0 lasted between 1866 and 1968, with early developments focusing on the early crafting of a viable financial services infrastructure able to link multiple financial systems spread throughout the developed world.

The next progression, fintech 2.0, happened between 1969 and 2008. This represented a period of rapid digitalization with the emergence of new technologies such as telephone banking, SWIFT, the Internet and finally, online banking and smartphones. It was during fintech 2.0 that financial services began to harness the power of the internet and telecommunication networks to expand their reach even farther.

The end of fintech 2.0 was marked by the ensuing upheaval of the 2008 Global Financial Crisis (“GFC”), the lasting effects of which ultimately ushered in the next evolution, fintech 3.0. As a result of the GFC, stakeholders in the financial services industry squandered the trust and credibility that it had built and cultivated over the course of fintech 1.0 and fintech 2.0 with its customers. Advances in technology in 2008, and the loss of trust in the financial services sector by its customers led to the emergence of Bitcoin. This was the world’s first digital currency that introduced the wider public to the vast potential of distributed ledger and blockchain technology. The system underlying Bitcoin removed the possibility of corruption in the issuing and exchange of currency by way of a consensus-based decentralized distributed ledger. Bitcoin, as opposed to relying on governments, central banks, or other third-party institutions to secure the value of the currency and guarantee transactions, instead employs complex algorithms and encryption to authenticate and verify the validity of transactions. Bitcoin forms only a small part of the fintech 3.0 (and fintech 3.5) revolution that is underway. We will discuss Bitcoin, the blockchain, and distributed ledger technology in later publication

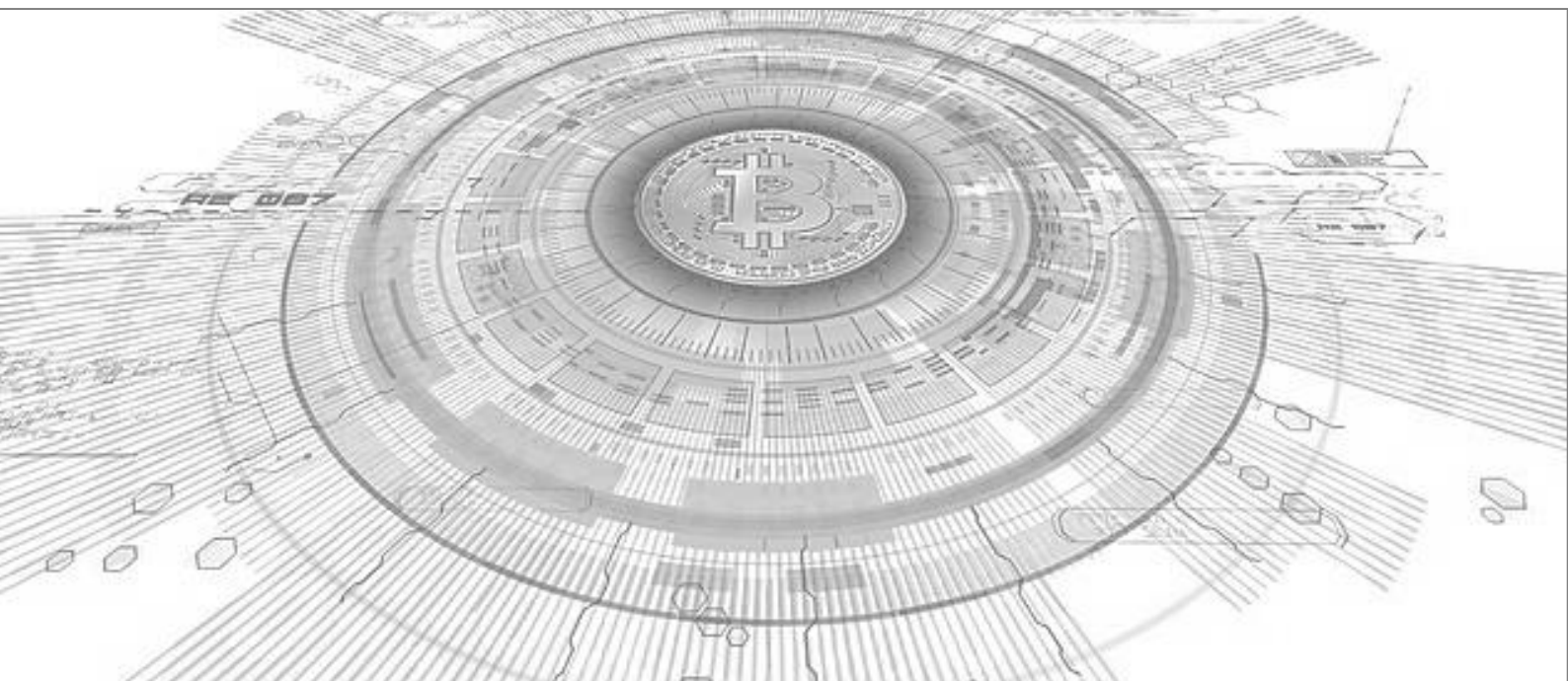
The FinTech Timeline



Understanding the FinTech Revolution

The Changing Face of the Banking Industry

In the wake of the tumult spread by the GFC across the global banking sector, innovation in banks and financial institutions became less of a priority, as most efforts and resources were put into adapting and complying with the new regulatory landscape being imposed by legislators. Meanwhile, as banks and financial institutions were pouring resources into regulatory compliance, those outside of the conventional banking sector were beginning to see advances in technology revolutionize almost all other industries, from telecommunications, to hospitality, and home utility services.



The FinTech Revolution: Regulatory Challenges

From a consumer behavioural perspective, customers began to expect all applications to have a personalized and convenient user experience. The relative lack of innovation offered by the traditional financial sector created a gap in the provision of financial services, which technology companies and start-ups have rushed in to fill. Tech-driven companies and start-ups now hope to exploit a “first mover” advantage in terms of supplying tailored, low cost consumer-oriented services to the public through the use of new technologies. These early fintech 3.0 participants rarely wish to become deposit taking institutions - instead they seek to engage with the front-end, consumer directed aspects of the industry, while leaving back-end financial services such as reconciliation and regulatory reporting to the traditional banks. Through this lens, traditional banks and financial institutions have become providers of commoditized financial-utility services to early participants in fintech 3.0, who in turn pick and choose those elements of the banking sector with which to get involved. They can often do so without becoming subject to the strict regulations imposed on traditional financial institutions by central banks and governments.

FinTech 3.5: Welcome to the Machine

We are now approaching the point of fintech 3.5. This period is set in the post-GFC world where consumers, technology companies, and financial institutions have been forced to adapt to not just a few, but a multitude of technological advancements, which have cumulatively been laying the foundation of a new model for the financial services industry.

This fintech landscape can be charted across ten categories: (i) payments, (ii) remittance (iii), insurance, (iv) planning, (v) lending and crowd-funding (vi), trading and investment, (vii) education and research, (viii) personal finance, (ix) data and analytics; and (x) security/infrastructure. The diagram below outlines some of the key areas that participants active in this sector are engaging in.

PAYMENTS

Payment Processing. Money transfer. Mobile Payments. Forex. Credit Cards. Prepaid Cards. Reward Programs.

PLANNING

Personal finance. Insurance broking. Underwriting. Retirement Planning. Enterprise Resource mgmt. Compliance & KYC, Tax and Budgeting.

SECURITY

Digital Identity. Authentication. Fraud Mgmt. Cyber security. Data Encryption.

BLOCKCHAIN

Payment Processing. Money transfer. Mobile Payments. Forex. Credit Cards. Prepaid Cards. Reward Programs.

TRADING & INVESTMENT

Investment Mgmt, Roboadvisory. Trading IT. Trading platforms. Brokerage. Clearing.

LENDING / CROWDFUNDING

Crowdfunding platforms. P-2-P Lending. Mortgages. Corporate Loans.



WHY THIS RECENT EVOLUTION?

The recent evolution of fintech is occurring within the context of various global trends taking place against the backdrop of demographic and generational changes, two of which we discuss briefly below.

1. Exponential Growth Of Computing Power

In 1965, the co-founder of Intel, Gordon Moore, predicted that computer processing power would double every 24 months (Moore’s Law). Consequently the cost of processing power has seen a 10 billion factor decrease in the first 50 years of the computer age. Memory cards have seen a 1,000 fold increase in memory power in the past ten years alone. Some of today’s laptop computers come equipped with flash storage of one terabyte or more, a capacity 100,000 times larger than what was available just 30 years ago. A typical smartphone today has more computational power than even NASA had available to it in 1969. This growth in computing power, the decline in storage, processing and data collection costs, the exponential increase of accessible data and data sources, and the emergence of data sharing platforms have all contributed to the emergence and runaway growth of fintech.

The FinTech Revolution: Regulatory Challenges

2. Broader Accessibility, Decreasing Cost of Products, and Services & Disintermediation/Re-Intermediation

The internet has not only facilitated global connectivity but has provided consumers with much wider access to products and services. Additionally, it has also reduced, and in some cases, completely eliminated the costs of particular products and services. Examples include digital photography, digital video, and making telephone calls. The market share of travel agencies has also been significantly reduced by competition from new arrivals on the scene such as Tripadvisor or Agoda. Similarly, iTunes removed the demand for CDs in the same way that Uber and Grab are causing disruption to the traditional model of the global taxi industry. The most recent phase of fintech reflects this trend: the creation of online equity crowd funding platforms that will reduce the need for stock exchanges and brokers, while peer-to-peer lending will start to encroach upon what had previously been the exclusive preserve of banks and lenders. More recent technological advances in the form of artificial intelligence, robotics, and quantum computing will further change how we receive, and interact with financial and investment services.

The first section of this ASEAN Path report provided a description of the fintech revolution happening across the globe today. As greater numbers of fintech companies begin to enter increasingly different areas of the financial services sector, greater dialogue is needed between regulators, governments, fintech enterprises, and traditional banking sector stakeholders. This will be essential in forging a balance between financial regulatory stability while continuing to incentivize technological innovation in the financial services sector. To this end, the regulatory framework applicable to fintech needs to be more clearly articulated with due consideration paid to new participants in the sector. In addition, fintech companies need to firmly understand how to adequately manage the risks of their business models in terms of investor protection, fair market practices, integrity, and financial stability. This second section of this ASEAN Path report outlines some of the key regulatory hurdles faced by fintech enterprises regardless of the jurisdictions that they operate in.

1. Risk Of Conducting Unlicensed Activities

Fintech participants argue they are not engaged in the provision of regulated activities as they merely offer (i) execution-only services, (ii) information services; and/or (iii) matching services. However, in most cases, a fintech business operator's platform and its offerings are widely accessible through the internet. They provide a vast series of tools available to customers through software and hardware, and these business operators receive financial benefits in some way, shape, or form for their activities. The combination of these factors indicates that these operators often cross the line into conducting "regulated activities". "Regulated activities" in this context may include, to name a few, operating a payment/collections system, conducting general solicitation, advising on securities, broker-dealer activities, or offering collective investment schemes.

2. Disclosure Risks

Investment proposals on peer-to-peer ("P2P") lending or crowdfunding initiatives may lack standardization and provide less detail than securities and credit offered on public markets by traditional providers. As an example of the trickle-down effects of the disruption created by blockchain technology, Initial Coin Offerings (ICOs) have caught the world's attention as a crowdfunding mechanism. Accompanying each ICO and blockchain based platform, is a whitepaper (akin to a disclosure document in an Initial Public Offering process) outlining what the investment will be utilized for. It remains to be seen not just for ASEAN regulators, but also how regulators across the globe will deal with this new phenomenon. Regulations are set to tighten on ICOs in the near future, as crowdfunding blockchain based initiatives steadily increase in number.

3. Cross-border Risks

A few platforms have begun to engage in cross-border activities whereby they distribute loans or securities of individuals and firms from certain jurisdictions to lenders or investors based in other jurisdictions. It is often unclear what particular laws an investor or lender can apply in seeking redress for instances of default, fraud, or bankruptcy of the operator. As some fintech explore cross border remittance services through their platforms, and other explore to innovate correspondent banking through blockchain technologies, regulators will need to pay closer attention to capital controls, anti-money closer attention to capital controls, anti-money laundering regulations, and terrorist financing risks.

The FinTech Revolution: Regulatory Challenges

4. Risk of Collapse, Fraud Or Malpractice

One of the biggest risks surrounding recent fintech developments is the participation of dubious companies that exploit gaps in applicable licensing processes, are not guided by regulatory codes of ethics, or subject to adequate licensing constraints. This increases the likelihood of a collapse owing to malpractice and fraud. These risks can be seen in the blockchain sector where there have been a number of common pyramid schemes and other bogus projects (including ICOs) where certain investors have found themselves defrauded. In response, certain jurisdictions in Europe require platforms registered under the Markets in Financial Instruments Directive (MiFID) to meet minimum capital requirements to guard against operational risks. Some jurisdictions mandate the use of a third-party custodian (Japan, Korea, Spain, and Malaysia) and restrict platforms from directly handling customer funds. France and Italy are imposing specific requirements to mitigate operational risks, such as making it compulsory to back-up facilities, and the putting in place of adequate security measures, procedures, and controls.

5. P2PRisks

As Peer-2-Peer lending/borrowing platforms increase in number, so do the risks associated with such business models. A loan through a P2P platform exposes the investor to the risk of borrowers failing to make timely interest and loan repayments. In certain cases, borrowers may fail to repay at all, thus squandering the entire investment as a result. Should such platforms should be subject to standards requiring reserve funds to account for bad debts? Do regulators force P2P platforms to publish clear and comparable default data on their loan portfolios? What are the maximum interest rates applicable to P2P loans as compared with interest rates offered by traditional financial institutions? A growing global trend points to more and more regulators becoming conscious of P2P financial services models, and they have started drafting specific regulations with precisely these in mind.

6. Cyber Security Risks

As almost all fintech operators will rely on technology and the internet to provide services, protecting the data and privacy of consumers will be of paramount importance. A system hack of a platform could result in unlawful disclosures of data and the complete loss of investments.

More and more governments are imposing stricter data standards not just on fintech operators but all businesses adapting to a more data “friendly” business model in order to (i) to defend against cyber-risks; and (ii) protect such data from unlawful disclosures. While financial institutions are subject to tighter cyber-security standards due to regulatory requirements, this is not yet wholly true in the case of fintech operators.










To provide an example, fintech operators such as P2P lending platforms, due to the nature of their businesses, may require access to credit data of customers kept at the credit bureau of a particular country. Such credit bureaus typically restrict membership to registered and licensed financial institutions or insurers, as these members have historically been subject to more stringent data protection standards.

Consequently, fintech operators may need to meet certain standards when implementing anti-penetration measures upon their systems. In tandem with these developments, greater cooperation will be needed between businesses and regulators to ensure that any major data intrusions are correctly dealt with.

7. Anti-Money Laundering and KYC Risks

The rapid growth of fintech has spurred questions about AML, Know your Customer (KYC), and terrorist financing from regulators. In fact, news reports indicate that the San Bernadino shooter had received a P2P loan using a fintech platform. This is just a minor example of the potential threats facing the fintech industry. Similarly, as digital cryptocurrency assets become more legitimate as a storage of value and medium of exchange, the risk of carrying large values of money across borders on a USB stick will begin to spark acute regulatory concerns. Regulators across the ASEAN region are taking AML compliance seriously, as non-compliance runs the risk of fatally undermining consumer faith in their financial systems. Fintech operators must also formulate clear strategies to conduct KYC tests and rigorous due diligence on their customers in order to succeed over the long term.

An ASEAN Perspective

	Population (million)	Mobile Penetration	Access to Banking	Access to Internet
	68.86	150%	78.0%	35 Million
	5.61	152%	96.4%	4.45 Million
	31.19	139%	80.0%	20.1 Million
	92.70	131%	31.0%	41 Million
	103.32	113%	31.3%	44.2 Million
	6.76	103%	22.0%	3.8 Million
	15.76	85%	27.0%	0.85 Million
	52.89	26%	22.8%	2.6 Million
	262.00	85%	36.0%	132 Million

While the global fintech industry attracted more than USD 24 billion of investment in 2016, fintech investment in Asia has for the first time exceeded investment levels in North America, led by high profile deals in China (including Alipay and Lu.com). The same is true for the ASEAN region. In 2016, investments in the Southeast Asian fintech market grew to USD 252 million, compared to USD 190 million in 2015. As of September 2017, total investment into fintech in Southeast Asia reached USD 338 million. This upward trend is expected to persist throughout 2018.

The demand for fintech products in the ASEAN bloc is bolstered by the rapid adoption of new technologies, proliferating levels of mobile usage, rising rates of internet penetration, and an increasingly sophisticated, literate, and youthful population. This includes a substantial segment of consumers and small/medium-sized enterprises that have historically been poorly served by the traditional banking sector. These factors and the vast economic potential of ASEAN are the driving force in attracting large numbers of fintech investors to

these shores.

Given the complexities of ASEAN (as a multi-nation region with diverse economies, languages, cultures, and laws), boosting its potential as a global fintech hub faces several key challenges. To address some of these, fintech associations from Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam collectively formed the “ASEAN fintech Network” (the “AFN”). This group is tasked with ensuring the promotion of fintech throughout the region, while further uniting and facilitating collaboration between the fintech ecosystems in each ASEAN nation. The AFN has identified four priority areas for the region: (i) the training of a more capable fintech workforce, (ii) boosting accessibility to investment capital, (iii) creating global market access; and (iv) increasing the availability of cutting-edge technology.

ASEAN’S FINTECH READINESS

Certain metrics from the ASEAN region clearly point to the region’s potential to prosper from a well-functioning fintech industry that has long been neglected by traditional financial institutions. The growth and opportunity of fintech in the ASEAN region can be narrowed down to several key factors:

1. Financial Inclusion

One of the core contributions that technology companies can make towards the financial services industry is financial inclusion, and this is why fintech has such promising potential in the emerging markets that constitute a large part of ASEAN. As of 2014, over half of the adult population of ASEAN did not have access to banking services, a demographic representing more than 264 million adults. This is even worse in rural areas where 74% of the population do not have basic access to a bank account or routine financial services. The key barriers to financial inclusion in the region include: (i) the lack of personal documents and credit history, (ii) poor financial infrastructure, (iii) logistical challenges; and (iv) burdensome regulations. These citizens together constitute a large untapped market of potential clients and untold opportunities for fintech companies.

Tech companies such as Facebook, Amazon, Alibaba, WeChat and Line have access to huge and important strands of data (including daily interaction with users of their software and products). Traditional banks and financial institutions on the other hand do not, and this goes some way in explaining why certain tech companies are often viewed as a looming threat by these groups.

An ASEAN Perspective

2. Digital Readiness

Mobile and internet penetration across the ASEAN region is extremely diverse. With the exception of the ASEAN giants, the smaller, less-developed member states are still at an early stage in their digital journey. Limited access to the formal financial sector but high and increasing mobile and internet penetration rates offer vast opportunities for fintech companies in the region to supply financial services to large segments of the ASEAN population.

3. Young Urban Population

The ASEAN region is home to two-thirds of the world's population, with a collective GDP of around USD 2.5 trillion with international trade of USD 2.3 trillion in 2015. A key advantage held by the ASEAN region stems from basic demographics. Around 50% of the entire ASEAN population is below 30 years of age. By 2030, this large and young population will enjoy increasing levels of literacy, education, and wealth. Above average economic growth coupled with a young, digital-savvy population will aid the growth of a strong middle-class and a corresponding increase in demand for readily accessible financial services.

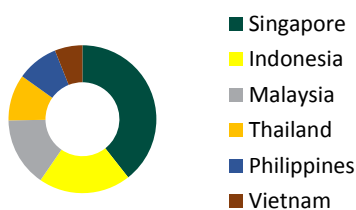
4. Strong Regulatory Support

The governments of most ASEAN nations have already identified fintech as a major growth area for the next five years, and have actively taken steps to create a supportive environment in which fintech companies can prosper. Regulators in each ASEAN member state have attempted to implement measures to promote the sector by offering tax and non-tax incentives to fintech companies seeking to conduct local operations. Most ASEAN regulators are taking steps to ensure that their economies stand ready to reap the vast benefits of financial innovation, while ensuring the stability of the local financial services market, and safeguarding consumer rights.

Who Currently Has the Lion's Share of FinTech Investment in ASEAN?

In terms of fintech investment distribution across the ASEAN region, Singapore currently receives the lion's share, accounting for 39% of the total. This comes as no surprise in light of Singapore's highly developed financial infrastructure, pro-business climate, and supportive regulatory policies.

% of ASEAN FinTech DISTRIBUTION



Other ASEAN nations such as Indonesia (20%), Thailand (10%), and Vietnam (9%) are ideally poised for fintech growth in 2018 given the high levels of mobile adoption, rising rates of internet penetration, and increasingly sophisticated, literate, and young population. We are confident that ASEAN will continue to draw greater numbers of investors and fintech operators, as the vast opportunities and potential offered by this region come more sharply into focus.



CAMBODIA

The Kingdom of Cambodia has transformed into one of the 10 fastest-growing economies of the past 20 years. Poverty has sharply fallen from 50 percent of the population in 2005 to 13.5 percent in 2014. The World Bank now classifies Cambodia as a lower-middle income economy, and no longer a low income economy.

The FinTech Allure of Cambodia

Cambodia's rapid progress is often chalked down to macroeconomic stability reflected by low inflation, increasing international reserves, modest fiscal deficits, low public debt and well-framed economic policies. From a FinTech perspective, Cambodia's allure lies in a relatively young population, the 7 million daily internet users, 27 million mobile subscriptions and the fact that only 22% of the population enjoys financial inclusion. Due to these metrics Cambodia has already experienced rapid growth of mobile accounts for remittances and payments within the country with companies like Wing promoting financial inclusion through the use of mobile subscriptions.

The Cambodian Investment Board offers incentives to investors looking to support entrepreneurs that are establish businesses in the following promoted fields: technology, job creation, exports, tourism, environmental conservation and rural development. Incentives offered include exemptions from taxes, duties and application costs. There are currently no dedicated investment incentives for participation in the FinTech industry in Cambodia.

The Current FinTech Stakeholders:

Cambodia's banking sector is regulated by the National Bank of Cambodia and the Ministry of Economy and Finance. While the Ministry of Economy and Finance regulates the FinTech industry with general laws, the primary regulator with respect to FinTech remains the National Bank of Cambodia.

In March 2012, the Cambodian Credit Bureau was launched to monitor and prevent client over-indebtedness. A 2013 study found that 22% of clients in Cambodia were insolvent or over-indebted and that 56% had more than one outstanding loan. Prior to the creation of the Cambodian Credit Bureau, there was no way for a financial institutions to determine whether clients had outstanding loans at another institution.

The Regulators:

National Bank of Cambodia | Ministry of Economy and Finance | Cambodian Investment Board | Cambodian Credit Bureau

Key Participants:

- FinTech Start-ups (Wing, Pi Pay, Bongloy, BanhJi, True Money)
- Traditional Financial Institutions
- Overseas workers

The Regulations:

Law on Banking and Financial Institutions | Law on Negotiable Instruments and Payment Transactions | Law on Financial Leases | Prakas on Third Party Payment Processors | | Prakas on Management of Payment Services Providers



INDONESIA

The 2017 Presidential Decree on e-Commerce Roadmap places SME's and start-ups front and center of the plan for digital transformation of the country by focusing on fundamental aspects such as funding, taxation, consumer protection, human resources, education, logistics, communication infrastructure and cyber security. Indonesia is pegged to become a force to reckon with in the e-commerce space behind China and India, in line with the government's vision to transform Indonesia into the largest digital economy in South East Asia by 2020. Also in line with its avowed objective to implement the Internet of Things, the Palapa Ring Project is expected to introduce fiber optic connectivity across Indonesia by 2019. Blockchain technology is witnessing increased acceptance in the Indonesian payments industry.

However, recently the Indonesian Central Bank has prohibited the use of virtual currency. The risks identified by the Indonesian Central Bank are, among other things, the inherent propensity of virtual currency to form asset bubbles, which may thereby lead to inflation, and in turn having long term implications on financial stability.

Regulatory Framework

The financial services sector in Indonesia is regulated by two key authorities namely BI and OJK. By virtue of Law of Republic of Indonesia No. 21 of 2011 on OJK, OJK is now responsible to regulate and supervise the entire financial service industry in Indonesia, including banking sector. OJK has the right to regulate, investigate and impose sanctions on financial service players. BI, on the other hand, will still supervise monetary policy, payment system and other macroprudential issues in order to achieve its single objective of achieving and maintaining the stability of Indonesian Rupiah.

In order to accommodate the technology and information system evolution especially related to fintech, including payment systems, BI has issued Regulation No. 18/40/PBI/2016 regarding Provision of Payment Transaction Processing which has been effective since 9 November 2016. Under this regulation, payment system service providers consist of, among other things, payment gateway providers and e-wallet providers. Payment gateway providers and e-wallet providers must be in the form of an Indonesian bank or a non-bank institution established in the form of an Indonesian limited liability company (a "PT"). Payment system service providers acting as principals, switching providers, clearing providers and final settlement providers must be in the form of a PT with at least 80% of shares owned by Indonesian parties. If an Indonesian legal entity owning shares has foreign shareholders, the foreign ownership percentage in the principal, switching provider, clearing provider and final settlement provider will be calculated based on direct plus indirect foreign ownership. Payment system service providers must be licensed by BI. In the case of e-wallet providers, such licensing obligation only applies if the number of active users has achieved or is planned to achieve at least 300,000 users. E-wallet providers in the form of a PT shall have an issued and paid-up capital of at least IDR3,000,000,000.

E-money, on the other hand, has been regulated by BI since 2009 by Regulation No. 11/12/PBI/2009. This regulation was amended by BI in 2014 in order, among other things, to harmonize the provisions of e-money with fund transfer provisions regulated under Law of Republic of Indonesia No. 3 of 2011 regarding Fund Transfer and its implementing regulations, as well as to utilize e-money in the digital financial services. This e-money regulation was then amended most recently by BI Regulation No. 18/17/PBI/2016 to further regulate digital financial services and its providers.

The Regulators:

- the Financial Services Authority ("OJK")
- Bank Indonesia ("BI")

Key Participants:

- Fintech companies
- Financial institutions
- Consumers

The Regulations:

Law of Republic of Indonesia No. 3 of 2011 regarding Fund Transfer | BI Regulation No. 14/23/PBI/2012 regarding Fund Transfer | BI Regulation No. 11/12/PBI/2009 regarding Electronic Money and as lastly amended by BI Regulation No. 18/17/PBI/2016 | BI Regulation No. 18/40/PBI/2016 regarding Provision of Payment Transaction Processing | BI Regulation No. 19/8/PBI/2017 regarding National Payment Gateway | BI Regulation No. 19/12/PBI/2017 on Implementation of Financial Technology | BI Board of Governors' Members Regulation No. 19/14/PADG/2017 on Regulatory Sandbox for Financial Technology | BI Board of Governors' Members Regulation No. 19/15/PADG/2017 on Procedures for Registration, Submission of Information, and Monitoring of Financial Technology Operators | OJK Regulation No. 77/POJK.01/2016 on Information-Technology-Based Fund-Lending Services

INDONESIA

P2P lending, which has become a popular and fast-growing fintech activity, was finally regulated by OJK on 29 December 2016 with Regulation No. 77/POJK.01/2016 on Information-Technology-Based Fund-Lending Services. Under this regulation, only a PT or a cooperative can be provider of P2P lending services. In relation to foreign investment, OJK opens opportunity to foreign investors to invest in a P2P operator in the form of a PT by permitting up to 85% shareholding in such a PT. A P2P operator in the form of a PT must have an issued and paid-up capital of at least IDR1,000,000,000 (approximately USD74,000 at the current exchange rate) upon application for a registration certificate. However, the capital must be increased to be IDR2,500,000,000 (approximately USD175,000 at the current exchange rate) once the P2P operator applies for a business license.

Finally, on 30 November 2017, BI issued the first regulation for the fintech sector namely Regulation No. 19/12/PBI/2017 on the Implementation of Financial Technology (the “**BI Regulation No. 19**”).

Under this regulation, fintech activities are categorized into five categories: 1) payment system; 2) market support; 3) investment and risk management; lending, financing and provision of capital; and 5) other financial services not included in categories 1) to 4). Fintech business operators are required to register with BI and in order to do so, their activities must meet various criteria set out by BI Regulation No. 19. In particular, such fintech business must be: 1) innovative; 2) potentially influential for other existing products, services, technology and/or financial business models; beneficial to the public, and 4) widely useable; such activities must also meet other criteria that may be established by BI. Payment system service providers who have obtained a licence from BI and fintech business operators regulated by a government authority other than BI (in this case, OJK) are exempted from the registration requirement. But if these fintech business operators provide financial technology in payment system services, they are not exempted from the obligation to register with BI.

Regulatory Approach and Future Ahead

While regulators have prohibited virtual currencies, they have adopted a rather open approach towards fintech activities generally. Indeed, BI Regulation No. 19 establishes a regulatory sandbox for fintech business operators to test these operators and their products, services, technology and/or business models, to ensure their fulfilment with the fintech criteria set out by BI. If the test has a successful outcome, the fintech business operators will apply for the relevant licence or approval to the relevant government authority before marketing the products or services to the public. The details of procedures on this regulatory sandbox can be found in the regulations of Board of Governors’ Members of BI number 19/14/PADG/2017 and 19/15/PADG/2017. This business-friendly regulatory approach puts Indonesia within the ranks of the United Kingdom (first country to establish a regulatory sandbox in 2016), Australia, Canada, Hong Kong, Singapore, Switzerland and Thailand.

Overall, the regulatory approach adopted by the Indonesia authorities makes it a promising land for future fintech-related investments. And it certainly helps when Ms. Nurhaida, deputy chairwoman of the OJK, declares to reporters that the institution is working on a roadmap to “regulate and facilitate fintech development”¹.

LAO PDR

The Lao PDR has a total of 35 financial institutions, 15 insurance agencies, 48 non-bank financial institutions, 64 microfinance institutions and around 4,000 village funds.¹

In terms of financial inclusion, reports suggest that 38.5% of adults have access to financial institutions, 25.5% use micro-finance institutions, 60.2% use informal services and while 25.7% of the population don't use any financial services.²

Given the early stages of FinTech development in the Lao PDR there are currently no FinTech startups/companies that pose any threat to the traditional financial services offered by the brick-and-mortar financial institutions based in the Lao PDR (likely due to tight licensing requirements imposed by the BOL). In fact, we are seeing it is the financial institutions themselves who are piloting projects to adopt and promote digital financial services in the country.

Current Digital Financial Services and Practices

The digital finance services ecosystem in the Lao PDR is still at a nascent stage. At present, only (i) mobile “top-ups”; (ii) utility bill payments through a formal bank account or the internet; and (iii) payments /transfers to vendors and bank accounts, are the only digital financial services prevalent in the Lao PDR.

The use of credit and debit cards, internet banking and point of sale devices is limited to high volume business transactions predominantly in Vientiane and Luang Prabang but in more recent times has flowed over to smaller cities in and around the Lao PDR. Heavy reliance on cash and cash transactions is due to roots in culture, habit and to some extent the high cost and time-consuming nature of digital financial services currently offered in the country. Studies and reports³ to date suggest that despite widespread use of cash for financial transactions, the business community and the people of the Lao PDR are ready for digital financial services provided that it is convenient, cheap and hassle-free.

The Hurdles:

- **Lack of Internet Infrastructure:** The ability to provide digital financial services in the Lao PDR is dependent on the telecommunication sector's infrastructure capabilities
- **Cost of Internet Services:** A recent study of broadband pricing in 196 countries revealed that prices for internet services in the Lao PDR were amongst the world's priciest (≈US\$232/month)⁴. Cheaper and faster internet services will help FinTech thrive in the Lao PDR.
- **Lack of Legal & Tax Incentives for Sector Participation:** There are currently no tax incentives or registration subsidies from the GOL for participation in the FinTech/Start-up sector in the Lao PDR. Putting in place such incentives will encourage the creation of a FinTech ecosystem in the Lao PDR.

Recent Developments:

- The BOL as the Central Bank of the Lao PDR has taken the initiative to create an enabling regulatory framework to permit banks and non-banks to offer digital financial services.
- BCEL released Lao PDR's first mobile banking application in 2015 allowing customers to transfer funds between accounts, pay utility and phone bills, and pay taxes from their mobile phones. More recently in November 2017,

The Regulators:

- Bank of the Lao PDR (**BOL**) | Ministry of Finance
- Ministry of Posts and Telecommunications
- Ministry of Science and Technology

Key Participants:

- Banque Pour Le Commerce Exterieur Lao (BCEL)
- UNITEL
- Australian Aid



BCEL launched another application called OnePay which allows users to pay anyone, anywhere, directly from their account by simply photographing a QR code. Similar initiatives are also currently being undertaken by other licensed commercial banks in the Lao PDR

- The Government of the Lao PDR has enacted new laws intended on putting in place a suitable framework to better regulate the realm of information and communication technology, electronic data and electronic transactions. These new laws include: (i) Law on Electronic Transactions (No. 02/NA, 7 December 2012); (ii) Law on Prevention and Combating of Cyber Crime (No. 61/NA, 15 July 2015); (iii) Law on Information and Communication Technology (No. 02/NA, 7 November 2016); (iv) the Law on the Protection of Electronic Data (No. 25/NA, 12 May 2017); and (v) the Draft National Payment System Law (which was passed at the last National Assembly meeting in December 2017 and will be in force upon (i) ratification by the President; and (ii) publishing in the Ministry of Justice's Official Gazette.

The Future:

FinTech has a future in the Lao PDR given its ability to promote financial inclusion. For FinTech to thrive in the Lao PDR the Government of the Lao PDR and the BOL will need to play a vital role to incentivize participants in the sector. From a comparative perspective with the rest of ASEAN, FinTech activities in the Lao PDR are not being undertaken by start-ups or tech companies, initiatives are being taken by traditional banking and finance participants. Promoting FinTech growth will also require input and commitment from the telecommunications sector to ensure that digital financial services can be offered across the country – until such time that the underlying infrastructure and correct regulatory conditions are in place, the development of FinTech in the Lao PDR will be slow.

¹<http://www.retire-asia.com/lao-banks-list-2015.shtml>

²<https://yostartups.com/the-state-of-fintech-in-laos/>

³<https://laotiantimes.com/2017/11/28/laos-internet-among-worlds-priciest/>

MYANMAR

Myanmar is one of those ASEAN nations which stands to reap the benefits of financial inclusion offered by the latest FinTech boom. The rapid advances of communications and financial technology are changing the way Myanmar resident's access and consumer financial products.

2016 and 2017 saw FinTech companies and corporations capitalizing on Myanmar's rapid development and increasing smartphone and internet penetration to offer low-cost, user friendly digital financial products.

While Myanmar has 4 state-owned banks and over 20 private banks, a majority of the population remains under-banked or unbanked. Nevertheless, FinTech companies offering mobile banking have thrived with the rapid internet penetration.

Services offered by the FinTech companies (called "Mobile Financial Service Provider" or MFSP under the Regulation on Mobile Financial Services) in Myanmar are mostly focused on money transfer such as person-to-person transfer, "top-ups", bill or purchase payment. Most if not all the operators offer their customers the possibility to "cash out" the money received on the platform through "cash agents". While this feature is not prominent in more developed markets, it is frequent in developing countries like Myanmar or Philippines, which may be explained by the lack of trust held by the population towards a developing financial sector. Note that unlike its counterparts in the Philippines, a MFSP can only conduct transactions in the local currency (Myanmar Kyat).

The Regulation

The Financial Institutions Law, enacted in January 2016 is the main legislation regulating the financial sector in Myanmar. It targets both banks and non-bank financial institutions (which encompass FinTech companies). In addition to setting out the licensing process, standard banking-related (such as taking of deposits, capital and reserve) and corporate governance (such as board of directors, accounting and auditing, etc.) rules and related offenses, it also contains section entitled "E- Money, E-Banking and Mobile Banking", which is directly FinTech-related. In fact, the "E- Money, E-Banking and Mobile Banking" chapter includes a provision explicitly restricting the issuance of "E-Money or credit token" to a bank or a registered financial institution. While no specific definition is offered for the term "credit token", the "credit token business" is defined as "the activity of issuing a token being a credit card, debit card, charge card or stored value card and such other card or device prescribed by the Central Bank". Cryptocurrencies can therefore potentially be included in the "credit token business" given the broad scope of its definition

In order to regulate the newly-born FinTech market, the Central Bank of Myanmar (the "CBM") issued the Regulation on Mobile Financial Services (FIL/R/01/03-2016). While previously, mobile banking operators had to form a partnership with traditional banks, they are now regulated directly by the CBM as non-bank financial institutions under the 2016 Regulation.

The new Regulation sets out requirement for registration, duties of a Mobile Financial Services Provider (the "MFSP"), relevant compliance requirements (including Know-Your-Customer and anti-money laundering rules), protection for customers and a complaint procedure.

Challenges Ahead

One of the challenges that a FinTech company may face is the lengthy licensing process. Indeed, while the 2016 Regulation states application would be processed within 90 days, it took one FinTech company 7 months to receive its license, while another one had to wait for 4 months.

Consistent enforcement of the existing rules and regulations by the CBM would be another challenge for the FinTech industry. Indeed, there were allegations that certain MFSPs were previously operating in a gray area and without proper licenses. Not only would such behaviour constitute unfair competition advantage to the rules-abiding operators, it may erode customers' trust in this booming yet still nascent sector.

The Regulators:

Ministry of Finance | Financial Regulatory Department | Central Bank of Myanmar

Key Participants:

- FinTech Companies: Ongo, Wave Money, Ok Dollar, MyKyat, Myanmar Mobile Money, 633 Mobile Money, True Money
- Retail Users

Key Regulation:

- Financial Institutions Law (Pyidaungsu Hluttaw Law No. 20, 2016)
- Mobile Banking Directive (CBM Directive No. 4/2013)
- Regulation on Mobile Financial Services (FIL/R/01/03-2016)

PHILIPPINES

The Philippines is a unique ASEAN jurisdiction where 10% of its GDP comes from Filipinos based outside of the Philippines. While a majority of the Philippine population remains unbanked, the rapid growth in the population of smartphone users has opened up alternative opportunities for financial inclusion. It is expected that the current FinTech start-ups operating in the Philippines will lead the financial inclusion revolution and bring over 70 million unbanked Filipinos to a new digital payments landscape. As of December 2017, there are 30 E-Money Issuer (“EMI”) banks and 10 EMI-Others (non-banks) operating in the Philippines. Latest BSP data showed e-money transactions rose 11.2% to 268 million as of end of September 2017 from a previous year level of 241 million. The volume of bitcoin transactions in the Philippines now averages USD 8.8 million in the first half of 2017, which is more than four times the USD 2 million per month average in 2015.

The Current FinTech Participants:

The Philippines is now home to a number of Fintech start-ups. The five (5) fastest growing fintech startups in 2017 are Acudeen, Ayannah, Bloom Solutions, Coins.ph, and Lendr. There are local startups that have been identified as blockchain enablers, such as [MergeCommit](#) and [Bloom Solutions](#), although fintech firm Satoshi Citadel Industries claims to be a company “building the Blockchain ecosystem in the Philippines”. Now there are five other leading fintech startups that are exploiting the potentials of blockchain in their respective businesses, namely: [Tagcash](#), [Qwikwire](#), [Coins.ph](#), [Appsolutely](#), and [Salarium](#). Products offered range from online lending to remittance services to online payment and digital commerce service. At least three of the start-ups use cryptocurrencies when offering their services.

FinTech in the Philippines:

The growth of FinTech in the Philippines is a result of the enabling environment created by the Bangko Sentral ng Pilipinas (“BSP”) to encourage digital financial services as a means to promote financial inclusion. As early as 2004, the BSP has adopted a “test and learn” approach with respect to FinTech (which is now referred to as the “regulatory sandbox approach”). This approach was used to engage the e-money pioneers in the country—Gcash and Smart Money by allowing them to pilot e-money products. Based on this approach, the BSP was able to issue in 2009 the regulatory framework governing the issuance e-money and operations of EMIs.

The BSP currently regulates digital finance activities in the country, although the Securities and Exchange Commission (“SEC”) has recently announced that it is preparing rules to regulate cryptocurrency transactions, which will cover the issuance and registration of cryptocurrencies. In a recent SEC decision, the SEC has ruled that digital coins and tokens are deemed securities, the issuance or sale of which in the Philippines requires registration with the SEC and compliance with the Securities Regulation Code.

E-Money: In 2009, the BSP has issued Circular No. 649 which provides the guidelines for the issuance of electronic money (E-money) and the operations of EMIs in the Philippines. EMIs may either be a bank, a non-bank financial institution supervised by the BSP, or a non-bank institution registered with the BSP as a money transfer agent. Electronic instruments or devices include cash cards, e-wallets accessible via mobile phones or other access device, stored value cards, and other similar products. Activities/transactions.” In 2010, the BSP recognized the potential of E-money to facilitate delivery of financial services affordably to the low-income, unbanked segments of the population, and therefore allowed the EMIs, under BSP Circular No. 704, to outsource E-money related services to an electronic money network service provider (“EMNSP”). An EMNSP is defined in the circular as “a non-financial institution that provides automated systems, network infrastructure, including a network of accredited agents utilizing the systems, to enable clients of an EMI to perform any or all of the following: (a) convert cash to E-money and monetize e-money, (b) transfer funds from one electronic wallet to

Other Fintech Regulations:

- **Circular 940 (20 January 2017):** Allows banks to serve clients through cash agents which can accept and disburse cash on behalf of the bank, using a device through which its customers can perform secure online, real-time deposit and withdrawal transactions for his/her own bank account, fund transfers and bills payment.
- **Circular 949 (15 March 2017):** Provides guidelines on social media risk management that advocate responsible use of social media by BSFIs, recognizing that social media presents vast potential benefits and opportunities for greater economic advancement and financial inclusion.
- **Circular 982 (9 November 2017):** Provides guidelines on information security management of BSFIs given the cybersecurity threats amidst the rapidly evolving digital financial landscape, and requires BSFIs to ensure that its IT risk management system, governance structure, and processes are commensurate with the attendant IT risks.

PHILIPPINES

another, (c) use E-money as a means of payment for goods and services; and (d) conduct other similar and/or related e-money activities/transactions.”

Remittance and Transfer Companies: In recognition of the use of money transfer operators by Filipinos in sending or receiving remittances, the BSP issued Circular No. 942 to introduce the concept of registering with the BSP as a Remittance and Transfer Company (“**RTC**”) in order to enhance supervision over money service businesses, in particular, to ensure their compliance with the Anti-Money Laundering Act. RTC is defined as an entity that provides Money or Value Transfer Service (“**MVTS**”); i.e., “financial services that involve the acceptance of cash, cheques, other monetary instruments or other stores of value and the payment of a corresponding sum in cash or other form to a beneficiary by means of a communication, message, transfer, or through a clearing network.”

RTCs included not only remittance agents, but also EMI and Remittance Platform Providers (“**RPPs**”). RPPs are defined as entities providing shared or common platform/IT infrastructure and maintains settlement accounts in order to provide funds for remittance transactions within its network.

Virtual Currency Exchanges: On January 19, 2017, the BSP Monetary Board has approved the rules and regulations on the operations of virtual currency exchanges in the Philippines through the issuance of BSP Circular No. 944. This circular essentially recognized the use of virtual currency (“**VC**”) systems for delivery of financial services, both for payments and remittances. VC is defined as “any type of digital unit that is used as a medium of exchange or a form of digitally stored value created by agreement within the community of VC users.” Under this Circular, VC exchanges may register with the BSP as an RTC.

National Retail Payment System: The National Retail Payment System (“**NRPS**”) Framework was adopted by the BSP under Circular No. 980 (November 6, 2017) to regulate electronic retail payments in the country. The BSP Supervised Financial Institutions (“**BSFIs**”) are required to ensure that the electronic retail payment systems they participate in demonstrate effective and efficient interoperability to allow them to transition from exclusive bilateral to multilateral clearinghouse agreements and provide electronic fund transfer facilities in all available channels, using the NRPS platform to implement a seamless electronic fund transfer and payments between and among accounts (e.g., between bank and e-money accounts). The NRPS framework covers all retail payment-related activities, mechanisms, institutions and users, and applies to all domestic payments of goods and services, domestic remittances or fund transfers.

The Future of FinTech in the Philippines:

With BSP’s goal of developing a digital finance ecosystem that supports diverse needs of all users and expand financial services to the hugely untapped low-income market, growth of fintech in the Philippines is expected to be sustained in the next five (5) years.

BSP targets increase in digital retail payment transactions to 20% by 2020. Thus, the NRPS is expected to be fully implemented in 2018, as the two priority payment schemes—PESO Net for batch fund transfer credit, and InstaPay for 24/7, real-time low value transfer credit—are expected to be fully launched in 2018. The Philippine Payment Management Inc. (“**PPMI**”), an industry-led governance body that will provide and implement governance standards to the retail payment system, has already been incorporated in August 2017. On January 17, 2018, the BSP and PPMI signed a Memorandum of Agreement which recognizes PPMI as the payment system management body (“**PSMB**”) for the NRPS infrastructure. As the PSMB, PPMI is expected to monitor implementation and progress of NRPS to ensure the establishment of an interconnected electronic retail payment system in the country.

The recent recognition by the SEC of the existence of cryptocurrency trading, classifying digital tokens and coins as securities within the coverage of the Securities Regulation Code, signals the rise of cryptocurrency and blockchain technology in the country. It is expected that the specific regulations on cryptocurrency transactions will be released by the SEC in 2018, which will pave the way for listing and registration of initial coin offerings.

SINGAPORE

Singapore offers investors unparalleled access to global and local markets. Singapore continues to be known as a “triple-A” rated economy with strong growth, a secure and stable business location for expansion and investment. Ever since the days of Sir Stamford Raffles, Singapore’s founder, the city-state has gone from strength to strength. It is not difficult to understand why this is the case: the city has taken great steps in establishing itself as a financial services hub, is considered one of the prime examples of a “Smart Nation”, and has a vast range of initiatives to support its growing startup ecosystem.

Singapore’s Monetary Authority of Singapore (the “**MAS**”) is the central authority to regulate banks, merchant banks, finance companies, insurance, securities, futures and fund management, financial advisers, money brokers, money-changing and remittance businesses, business trusts, trust companies, and payment settlement systems. As the central bank and regulator of Singapore’s financial industry, the MAS is empowered to issue guidelines, directions, codes, circulars and notifications to better shape the financial services sector in Singapore. The MAS is tasked with performing the following functions to achieve its objectives, being: (i) regulation, (ii) authorization, (iii) supervision, (iv) financial surveillance; and (v) enforcement.

Regulating FinTech in Singapore:

While Singapore does not yet have a dedicated FinTech Act, the MAS has stated that “all [**FinTech**] businesses must be registered with the Accounting and Corporate Regulatory Authority” and must acquire the relevant licenses that fit their proposed activities from the MAS. The MAS is constantly aware of the evolutionary and disruptive nature of the FinTech industry, and is actively taking steps to ensure that such innovations are sufficiently regulated to ensure financial stability of the country.

Thus, for example if a FinTech company proposes to offer financial advisory services in Singapore, it must obtain a Financial Advisor License from the MAS.

The Financial Services Licenses Available in Singapore:

Under the MAS’ regulatory and supervisory framework, some of the licenses with respect to the provisions of financial services in Singapore include:

- *Capital Markets Services License:* This is a license issued by the MAS under the Security and Futures Act and is required by any person “who wishes to carry on a business in any regulated activity”. The term “regulated activity” includes: dealing securities, trading futures contracts, leveraged foreign exchange trading, advising on corporate finance, fund management, REIT management, securities financing, providing custodial services for securities and providing credit rating services.
- *Financial Advisers Licenses:* This license is issued by the MAS under the Financial Advisers Act and is required to be obtained by companies engaging in any activity or conduct that is intended or likely to induce the public in Singapore to use any of the following services: advising other concerning any investment products other than advising on corporate finance, issuing and promoting analyses or reports on any investment product, marketing any collective investment scheme including unit trusts and setting up life insurance policies.
- *Finance Companies License:* This license is issued by the MAS and is required under the Finance Companies Act to conduct “financing business” in Singapore. Any FinTech company that conducts “financing business” such as (i) accepting fixed and savings deposits; and/or (ii) lending money to the public or companies, is required to obtain this license.
- *Money Changer’s License:* A moneychanger’s license is issued by the MAS under the Money-Changing and Remittance Business Act and is required to be obtained by businesses that buy or sell any foreign currency notes.

The Regulators:

Monetary Authority of Singapore | Singapore Deposit Insurance Corporation | Ministry of Finance | Accounting and Corporate Regulatory Authority | Singapore Exchange

Key Participants:

Codapay | 2C2P | BioCatch | Fastacash | Tookitaki

The Relevant Regulation:

Banking Act (Cap. 19) | Monetary Authority of Singapore Act (Cap. 186) | Finance Companies Act (Cap. 108) | Insurance Act (Cap 142) | Securities and Futures Act (Cap. 289) | Financial Advisers Act (Cap. 110) | Money-Changing and Remittance Business Act (Cap. 187) | Business Trust Act (Cap. 31A) | Trust Companies Act (Cap. 336) | Payment Systems (Oversight) Act (Cap. 222A) | Personal Data Protection Act |

SINGAPORE

- **Insurance License:** An insurance license is issued by the MAS under the Insurance Act. Any business conducting the following activities in Singapore will be required to obtain an insurance license: (i) assuming risks or undertaking liability in Singapore under insurance policies; (ii) receiving proposals for policies in Singapore; (iii) issuing policies in Singapore; and (iv) collecting or receiving premiums on policies in Singapore.
- **Banking License:** A banking license is issued by the MAS under the Banking Act and is required by any business that (i) receiving money on current or deposit accounts; (ii) pays and collects cheques drawn by or paid in by customers; and (iii) makes advances to customers.

FinTech Compliance Developments

In addition to the licensing requirements discussed above, FinTech participants are also required to comply with domestic data protection and anti-money laundering requirements. These have been discussed below.

Compliance with Data Protection Principles: Given the digital nature of FinTech, FinTech participants are required to comply with the Singapore Personal Data Protection Act with respect to the collection, use, disclosure and care of personal data.

Compliance with Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT) Principles: Singapore's financial industry has adopted strict regulations to combat money laundering and terrorist financing. FinTech participants are expected to comply with the relevant guidelines and requirements or risk facing hefty monetary fines of up to SGD 1 million. Under the AML/CFT guidelines, financial institutions are required to (i) assess and mitigate money laundering and terrorist financing risks; (ii) identify and conduct know-your-customer compliances on its customers; (iii) conduct regular account reviews; and (iv) monitor and report any suspicious transactions to the regulators.

The MAS FinTech Regulatory Sandbox: Given the nature of FinTech 3.0, there is a risk that non-traditional financial institutions participating in the space, are not meeting the regulatory requirements that have traditionally been imposed on brick-and-mortar financial institutions. The MAS is therefore providing regulatory support by encouraging FinTech companies to experiment with their products so that promising innovations can be tested in the market and have a chance for wider adoption, in Singapore and abroad. The regulatory sandbox has thus enabled FinTech companies to experiment with innovative financial products or services in a safe environment.

While the sandbox does allow for more relaxed regulations; it is not intended as a means for companies to circumvent legal and regulatory requirements.

The Future of FinTech in Singapore

In the absence of specific FinTech legislation governing the activities of FinTech companies, current domestic legal requirements are being applied to FinTech participants to ensure compliance with the same industry standards as other traditional brick-and-mortar financial institutions. The MAS in late 2017 published an Industry Transformation Map outlining its plans to cement the country's status as a leading global financial center. This strategic plan aims to make Singapore a leading international wealth management hub, fund management and domiciliation hub and global center for Forex in Asia. Singapore's financial services industry transformation looks to: (i) create a diverse ecosystem where financial institutions and startups can compete and collaborate, (ii) create an open API (Application Programming Interface) economy where financial institutions develop and share APIs openly, while following standardized guidelines that enable service providers to create seamless customer experiences, (iii) create a network of international links, (iv) ensure robust cyber security defenses through collaboration of institutions; and (v) strengthening human resources to sustain upcoming FinTech efforts.

THAILAND

The Thai financial services sector is heavily regulated and often subject to a plethora of licensing, registration, notification or approval requirements. These include: e-payment licenses, securities licenses, personal loan licenses, banking licenses, credit card business licenses, foreign exchange licenses, money transfer licenses, crowdfunding portal approval etc.

In addition to the licensing/approval requirements, participants in the financial services sector are subject to regulatory compliance in terms of ensuring minimum IT security systems, data and consumer protection, anti-money laundering safeguards, exchange controls, and risk management processes.

Thailand A Future ASEAN FinTech Behemoth

From a FinTech development perspective, Thailand is a potential FinTech powerhouse in the ASEAN region given its commitment to the Thailand 4.0 policy (which lays the foundations of the country's FinTech development) and its plans to create a "digital economy". In addition, 2017 saw the creation of dialogue between FinTech participants and regulators through the Thai FinTech Association.

The Thai Government has taken active steps to ensure that Thailand remains an attractive destination for FinTech participants through the use of regulatory and non-regulatory response strategies. As regulatory support for the industry grows in Thailand, it is likely that several legislative changes will occur. We discuss Thailand's responses to date which aim to facilitate the growth of FinTech in the country and encourage overseas investment into Thailand:

1. Thailand's FinTech Sandboxes

A regulatory sandbox refers to a predefined scope of restrictions within which a technology firm may operate exempt from some or all of the regulations that would normally be applicable to it, in order to test new products, services or business models that depend on innovative technology.

The Bank of Thailand (BOT) in 2017 promulgated its regulatory sandbox in the form of a practice guideline that specifies qualification for participation. The BOT's sandbox is open for participation to financial institutions, FinTech firms and general technology firms. The BOT rationale for the sandbox was to (i) provide an opportunity for new players to enter the market, such as foreign firms and start-ups through government sanctioned platforms, (ii) supervise both consumers and business operators to ensure protection from financial damage; and (iii) create dialogue between new FinTech firms, large financial institutions and the regulators.

Other than the BOT's sandbox, sandbox environments are also being offered by the Securities and Exchange Commission (SEC) and the Office of the Insurance Commission (OIC). Both have launched their own sandboxes to coordinate efforts in the event that products and services offered by FinTech participants are being supervised by more than one regulator. The SEC will oversee FinTech firms engaged in the capital market, while the BOT will supervise those involved in the financial market. Lastly the OIC will oversee participants in the insurance business.

2. Spurring Interest Through Tax Incentives

To ensure that Thailand is seen as FinTech hub by overseas

The Regulators:

Bank of Thailand | Stock Exchange of Thailand | Securities and Exchange Commission | Office of the Insurance Commission

The Regulation:

- Amendment to the Credit Information Business Act B.E. 2545
- Amendment to the Civil and Commercial Code
- Draft FinTech Bill
- Payment Systems Act B.E. 2560
- Draft Amendment to Credit Information Business Act B.E. 2545 (2002)
- Regulatory Sandboxes (SEC, SET, BOT and OIC)
- Credit Data Accessibility Proposal
- Offering Tax Incentives
- National E-Payment Master Plan

investors – Thailand's Board of Investment (BOI) has added digital services as one of the eligible activities for investment promotion. Participants in the digital services industry receive type A3 investment incentives – being 5 years corporate income tax exemption for up to 100% of the principal investment amount, exemption of import duties and other non-tax incentives such as the newly introduced Smart Visa

Other tax incentives aimed at fostering FinTech investment in Thailand include:

- **Participation in the Nation E-Payment Master Plan:** participating merchants receive personal and corporate income tax exemptions for using card-accepting equipment (and 100% deduction of the cost of the equipment).
- **Venture Capitalists:** To encourage participation of venture capital funds, exemption from income tax on dividend has been offered for 10 accounting periods.
- **Start-ups:** high-tech start-ups looking to establish in Thailand will receive a 5 year corporate income tax reduction.

3. Easing Existing Rules and Permitting New Company Structures

To ensure Thailand is able to sustain the start-up community, several amendments have been proposed to the Thai Civil and Commercial Code. These proposed amendments include: (i) the possibility of single shareholder companies, (ii) enshrining employee stock option plans (sweat equity); and (iii) easing M&A rules.

THAILAND

4. Accessing Credit Data

Prior to the recent surge in FinTech investment, only financial institutions and specific businesses were allowed membership and access to the National Credit Bureau. In 2017 an amendment to the Credit Information Business Act B.E. 2545 (2002) was proposed to amend the definition of “financial institution” to include FinTech businesses, thereby allowing such businesses to access credit data records maintained by the National Credit Bureau.

As more and more peer-2-peer lending and funding platforms emerge, such businesses will have greater access to credit data to assess and address the various risks posed by peer-2-peer lending/crowdfunding models. Increasing accessibility of credit data increases the impact of cyber security and data privacy issues on business operations. We have discussed the changes made by Thailand in this field below.

5. Data Privacy and Cyber Security Issues

Making credit data accessible to newer businesses, conducting financial transactions over the internet, and the sharing of customers’ data between FinTech incumbents bring legal risks relating to data privacy and cyber security to the fore.

While the Financial Institution Act, the National Health Service Act and other specific business legislation have set out standards to be met by specialized businesses in such sectors to ensure that data collected from persons in the course of trading are not disclosed and are adequately protected, it remains unclear as to whether FinTech operators will be subject to the same data privacy and cyber security standards that are imposed on licensed financial institutions.

The Thai Government has recognized the need to have adequate data protection standards and cyber security standards as it shifts towards a digital economy and as such has prepared a Personal Data Protection Bill which is currently still under consideration by the National Legislative Assembly. However due to severe criticism from the general public, the enactment of the Personal Data Protection Act has been delayed.

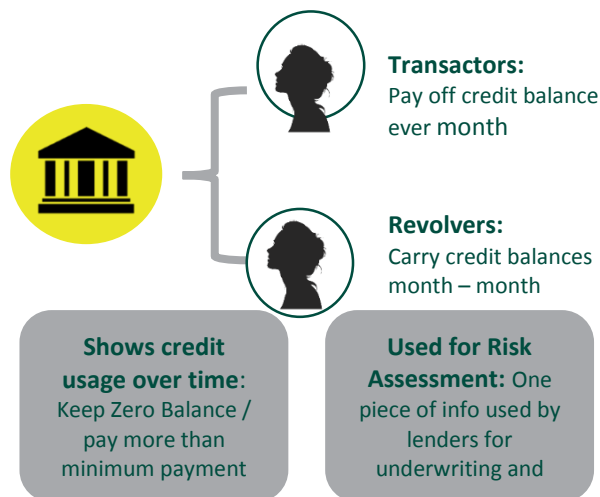
2016 saw the amendment of the Computer Crime Act (2007) with a view to protecting the public against internet spam, hackers and identity theft by imposing heavy fines and imprisonment on perpetrators. Given that FinTech operators are often dealing with significant sums of customer money at any given point, it will be important for regulators to enforce minimum standards on FinTech operators with respect to their systems and servers in order to adequately protect consumer interests.

6. The (Draft) FinTech Act and Other FinTech Specific Regulations

Thailand is in the process of enacting a dedicated FinTech law which is expected to pave the way for infrastructure and create an ecosystem that will strengthen local fintech firms’ competitiveness against foreign operators. It is expected that the FinTech Act will be supervised by the Prime Minister’s Office, the Minister of Finance,

What is Credit Data?

History compiled by lenders or credit bureaus of how you manage your credit spending and balances



the SEC and the OIC. Depending on the level of disruption caused the envisioned activities of Fintech Operators, either licensing or reporting to the regulator would be required with respect to their activities in Thailand. Based on recent news report, “open data” as an integral part of the draft bill whereby consumers would be allowed to use any service offered by licensed/authorized FinTech operators without having to repetitively fulfill KYC compliance procedures..

In a commendable effort to stay abreast of developments in Fintech, the Payment Systems Act, B.E. 2560 (2017) was passed in August 2017, and duly notified in October, and is slated to become effective in April, 2018. Payment systems have been classified as (i) integral payment systems that facilitate high value transactions and are used for settlement and clearance thereby constituting crucial financial infrastructure of the Kingdom, (ii) regulated payment systems and (iii) regulated payment services. Keeping with civil law traditions, the new legislation bestows broad administrative discretion upon the office of the Minister of Finance and the Bank of Thailand to determine applicability and whether licensing or registration would be required of business operators in the payment space.’

Aside from a dedicated FinTech Act, 2018 will see the BOT issue regulations on peer-to-peer lending allowing platform operators to act as middlemen between individual borrowers and lenders. 2018 will also see the OIC regulate insurance activities that are being conducted via electronic channels which may pave the way for blockchain technology to disrupt Thailand’s insurance sector.

VIETNAM

Vietnam is another sleeping FinTech giant in ASEAN. Vietnam's population is currently at 92 million and continuing to climb at the rate of 8% per year. Internet penetration is currently at 58% with consistent growth year on year. FinTech and traditional financial institution offering money transfers, POS systems, personal finance and mobile payments solutions are catalysing growth in the financial services sector making Vietnam an optimal environment for FinTech.

Today, the Vietnamese FinTech start-up scene counts over 40 startups and brands tackling all areas of FinTech from P2P lending and credit scoring to mobile payments, wealth management and blockchain technology.

Many FinTech businesses in Vietnam, especially those focused on payment services, result from cooperation between FinTech companies and traditional banks. Specifically, these companies would apply for a licence for the provision of intermediary payment services with the State Bank of Vietnam ("SBV") in order to cooperate with banks to offer products and services to consumers. Currently, Vietnam does not have a general legal framework for FinTech activities, albeit specific regulations governing FinTech activities such as electronic payment services exist. In parallel, the Vietnamese government amended the Law on the State Bank of Vietnam [and the Law on Credit Institutions] several times in order to adapt the 1997 legislation to the new realities of banking and finance. The SBV is currently examining the possibility of setting up a legal framework for FinTech: on 16 March 2017, the Governor of the SBV issued Decision No. 328/QD-NHNN on the establishment of a Steering Committee on FinTech.

As Vietnam has a cash-heavy economy, current official support tends to be oriented towards increasing e-commerce and electronic (cashless) transactions. The first piece of legislation to provide a legal framework for e-payments was promulgated in 2012 (the Decree on Non-Cash Payments). It was amended in 2016 by the Decree on Amendments to the Government's Decree No. 101/2012/ND-CP dated November 22, 2012.

Aside from the electronic banking services offered by traditional banking institutions (with or without the cooperation of FinTech companies), most existing Vietnamese FinTech businesses are focused either on peer-to-peer lending or peer-to-peer transfers (including international remittances). Compared to its neighbouring countries, peer-to-peer lending platforms in Vietnam seem to be more active. The fact that the wider population is more inclined to borrow from friends and family than from financial institutions¹ might explain why this business is thriving. Remittances from the overseas Vietnamese diaspora and the lack of debit cards among a majority of the population probably help fuel the perceived boom of peer-to-peer transfer platforms.

Unique Vietnamese Features

Even though market entry is made easier for foreign investors by

The Regulators:

State Bank of Vietnam | National Payment Corporation of Vietnam

Key Participants:

- FinTech Start-ups (Bitcoin Vietnam, HuyDong, VayMuon, MatchMove Pay, Cash2VN, Mobivi, MoMo, Sharemoney, Timo, Lendbiz, Tima, Mofin, OnOnpay, Payoo)
- Traditional Financial Institutions
- Foreign aid agencies

The Regulations:

Law on the State Bank of Vietnam | Law on Electronic Transactions | Law on Information Technology | Decree on Electronic Transactions in Banking | Law on Credit Institutions | Circular on Installation, Management, Operation and Security of Automated Teller Machines | Decree on Non-Cash Payments | Circular on Intermediary Payment Services | Master Plan for E-Commerce Development | Circular on Management, Operation and Use of the National Interbank Electronic Payment System | Directive on the Strengthening of Security in Electronic Payment and Card-Based Payments

cooperating with Vietnamese partners, Vietnam not only counts domestic firms (which may or may not have a foreign founder) but foreign players have entered the market as well. For example, London-based WorldRemit, an online transfer platform, launched its Vietnamese services in November 2015.

Another distinguishing feature of the Vietnamese FinTech sector is the participation of foreign aid agencies. For example, Australian Aid partnered with The Asia Foundation, Vietnam Bank for Social Policies and MasterCard to launch a first mobile banking platform to cater to the low income populations in Vietnam.

Recent Trends and Developments

As the number of venture capital firms increases across the ASEAN region and Asia as a whole, investors are now eyeing the Vietnam FinTech startup scene. Two South Korean funds, Credit China FinTech Holding from Hong Kong, Standard Chartered Private Equity and Goldman Sachs have each invested heavily in FinTech development in Vietnam.

From a regulatory perspective, the Steering Committee on FinTech is tasked with "improving the FinTech ecosystem" and cultivating a positive legal framework to facilitate the growth of FinTech businesses throughout the country. The "wait and see approach" of the SBV could potentially pay dividends as the more developed economies of ASEAN take hard approaches to legislation on FinTech.

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