

FinTech in the Philippines: Assessing the State of Play

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INTRODUCTION

The financial technology, or FinTech, sector in the Philippines is maturing and is now attracting a rapidly increasing number of users and more sizeable capital investments. It is possible that 2019 may mark an inflection point where the country will be able to make a fundamental shift from an inefficient paper-based payment system and low levels of financial inclusion to a widely accessible and digital financial services industry.

Strong fundamentals—including a youthful, urbanizing population, a rapidly growing economy and expanding middle class, and widening mobile and internet usage—will likely drive the digital transformation of the Philippine financial sector. But credit also goes to a supportive regulator that has put into place the critical requisite payment frameworks and regulatory standards to support its development.

This paper examines the current contours and activities of the FinTech sector in the Philippines, the trends driving its development, and ongoing concerns about financial literacy, the domestic startup ecosystem, and collaboration with the traditional banking sector. The paper is organized into five sections that explore these issues:

The need for digital transformation: The current low levels of financial inclusion for individuals and small businesses in the Philippines and a heavy dependency on cash and checks for payments throughout the economy.

The drivers of the coming digital transformation: The Philippines' youthful, urbanizing demographics; the country's strong economic performance and projected growth rates; and mobile and internet penetration trends.

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The role of government and the regulatory environment: The “test and learn” philosophy espoused by the Bangko Sentral ng Pilipinas (BSP); national initiatives to support digital payments, including the National Retail Payment System, PESONet, and InstaPay; and newly introduced regulations aimed at expanding digital financial inclusion.

The Philippine FinTech landscape: The activities of the country’s large telecommunication firms, FinTech startups, and their banking partners across several verticals: payments, consumer lending, alternative financing for small and medium-sized enterprises (SMEs), and remittances.

Outstanding challenges for the development of the FinTech sector: The country’s low levels of financial literacy, the two main challenges for domestic FinTech startups: access to capital and access to talent, and the state of FinTech adoption among the country’s largest banks.

Across the Association of Southeast Asian Nations (ASEAN), similar fundamentals are catalyzing new investments and innovations in financial technology. In its 2017 report, “State of FinTech in ASEAN,” the Singapore-based United Overseas Bank concluded, “Strong GDP growth, favourable demographics, digital readiness, and regulatory initiatives offer a plethora of opportunities for FinTechs across the ASEAN region.”¹ As a result, throughout ASEAN, newly formed FinTech businesses and investors are seeking to capitalize on the sector’s regional potential.

¹ See “State of FinTech in ASEAN” (UOB, 2017) as well as “ASEAN FinTech Census 2018” (Ernst & Young, 2018), which identifies the factors contributing to “the rapid adoption of FinTech innovation in the region” as “[r]apidly expanding economies, young-urban-digital-savvy population, increasing mobile and internet penetration, and largely underserved, small and medium-sized enterprises (SMEs) and consumer markets.”

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Table 1. Investment and the Creation of New FinTech Firms in Southeast Asia

	2016		2017		2018	
	Funding (US\$ millions)	Companies created	Funding (US\$ millions)	Companies created	Funding (US\$ millions)	Companies created
Philippines	11.2	22	53.2	13	96.6	9
Indonesia	8.4	52	35.4	39	189.4	14
Malaysia	5.5	47	75.3	33	23.5	8
Singapore	70.6	125	396.0	156	678.4	115
Thailand	20.0	30	37.4	14	9.4	9
Vietnam	128.0	9	3.3	13	3.0	7

Source: "FinTech in Southeast Asia: Sector Snapshot," Tracxn, 2018.

Still, there is a particular optimism about the Philippines. Speaking at De La Salle University in Manila in October 2017, Jack Ma, founder of the e-commerce behemoth Alibaba, told the assembled students, "Philippines, I think you have the opportunity to make the best TechFin or FinTech in the world."² He continued, "You have so many mobile phones. You have 7,000 islands. It's impossible for banks to have offices on 7,000 islands, covering everywhere. But mobile phones cover everywhere. We should make the Philippines a cashless society. When you have a cashless society, there's no corruption. Life is easier."

² Rappler, "Jack Ma on why the Philippines has the potential to be a leader in fintech," YouTube video, October 25, 2017, <https://youtu.be/OZK-SSwbqAY>.

The Philippines has a long way to go to realize this vision. Yet a number of actors, both from the private sector and government, are working to transform the country's current paper-based financial sector into something far more inclusive and efficient.

THE NEED FOR DIGITAL TRANSFORMATION

The majority of the adult population of the Philippines lacks access to formal financial services, while micro, small, and medium-sized enterprises (MSMEs) also lack access to traditional bank financing. At the same time, the payments system remains heavily dependent on physical paper, in the form of either cash or checks. These issues, particularly when combined, highlight the need for a digital transformation of the Philippine financial system.

LOW LEVELS OF INDIVIDUAL FINANCIAL INCLUSION

At the household level, according to the BSP's Financial Inclusion Survey (FIS), 53 million Filipino adults—77 percent of the adult population—did not have a formal financial account of any kind in 2017: not at a bank, a savings co-op, or a microfinance institution.³ In other words, only 23 percent of adult Filipinos held a formal financial account in 2017. The number with a bank account is even smaller, at about 8 million or 11.5 percent of the adult population. The World Bank Findex study found a somewhat higher level of formal account ownership in the Philippines, with 34.5 percent of adults (age 15 and over) having an account at a formal financial institution. This figure, however, still puts the country well behind Indonesia, Malaysia, and Thailand, and roughly on par with Laos and Vietnam in terms of formal financial access.

Financial access remains out of reach for many Filipinos, in part, because many communities do not have a single physical bank within reach, partially as a result of the country's geography. As an archipelago nation of over 7,000 islands, the geography of the Philippines—as well as its historical poverty—has limited the expansion of traditional brick-and-mortar financial institutions. A third of municipalities in the Philippines do not have a bank branch, and about 7 percent of Philippine communities lack any financial access point.⁴

³ "Financial Inclusion Survey" (BSP, 2017); hereafter cited as FIS 2017.

⁴ Most, but not all, of the unbanked areas have some other form of financial access point, such as a credit cooperative, microfinance non-governmental organization, pawnshop, or e-money agent. In 2017, the BSP issued Circular No. 987 to help address the issue of physical access by allowing banks to open "branch-lite" units. The BSP charges significantly lower processing and licensing fees for branch-lite units compared to traditional branches. By Q2 2018, over 1,700 branch-lite units had been established around the country, including in 151 municipalities that previously did not have a single bank branch.

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According to Voyager-FINTQ’s “Inclusive Digital Finance Report,” the average time to reach a financial access touchpoint (a term that includes banks, microfinance institutions, and other providers) is 21 minutes, with an average transportation cost of PHP43 (or about US\$1). This is no small amount. It is about 20 percent of the average daily income for a worker in the agriculture sector and about 10 percent of daily income for non-agricultural workers.⁵

SMALL BUSINESS AND ACCESS TO BANK CREDIT

Access to credit from formal financial providers is a pressing challenge for smaller Philippine firms, which account for 63 percent of national employment. According to a study from the Asian Institute of Management, less than 20 percent of small businesses have received a bank loan in the last two years.⁶ The World Bank’s Enterprise Survey found that only 12.4 percent of Philippine firms use bank credit to finance investments, compared to an average 20.5 percent for the East Asia and Pacific region. This is undoubtedly connected to the fact that the Philippines has one of the highest loan rejection rates in Southeast Asia. Perhaps unsurprisingly, almost all loan rejections are concentrated among the country’s small businesses.⁷ According to the Enterprise Surveys, 27 percent of Philippine businesses with between 5 and 19 employees have had a recent loan application rejected, while the rejection rate for companies of this size across the East Asia and Pacific region is 11 percent.

There appear to be two main reasons for these findings. First, lending to smaller firms is often not central to the larger banks’ core business. As the BSP highlighted in its report on the financial system for the first half of 2018, meeting standards for “mandatory credit allocation for MSMEs... is the most challenging area for respondent banks in terms of compliance” (see Box A for more on mandatory SME lending).⁸ The BSP concluded, “[B]anks’ business models may not be geared toward lending to the [agrarian and agriculture] and MSME sectors.”

⁵ According to the Labor Force Survey of the Philippine Statistics Authority, the average daily wage or salary for agricultural workers was PHP222 in January 2018; for non-agricultural workers, the average daily wage or salary was PHP457. For the roughly 22 percent of the population that lives below the international poverty line of US\$1.90 a day, PHP43 would represent roughly half of their daily financial resources.

⁶ Maribel Daño-Luna, Tristan Canare, and Jamil Paolo Francisco, “Drivers of Philippine SME Competitiveness: Results of the 2018 SME Survey,” Rizalino S. Navarro Policy Center for Competitiveness at the Asian Institute of Management, Working Paper Series 2018-003 (November 2018).

⁷ *Enterprise Surveys* (The World Bank, 2015).

⁸ “Report on the Philippine Financial System: First Semester of 2018,” (BSP, July 2018).

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The second reason is that MSMEs themselves are often unable to provide the information required for banks to make a credit decision. Part of the reason is circular; these small businesses cannot access credit and thereby lack credit histories. The more significant issue, though, is that small firms often do not have the capacity to produce quality financial records or choose not to in order to avoid compliance with various rules and regulations.⁹ Summarizing the existing literature on financial access for SMEs in the Philippines, Rafaelita M. Aldaba of the Philippine Institute for Development Studies concluded, “[M]any SMEs cannot access available funds due to their limited track record, limited acceptable collateral, and inadequate financial statements and business plans.”¹⁰

With bank financing often unattainable, small Philippine firms frequently rely on retained earnings and the personal savings of owners as sources of funds for working capital and business investments. There is a strong argument to make that digital financial services could help. By creating new and reliable sources of data, financial technology can help address information asymmetries that prevent SME lending, including poor financial records due to cash-based business models. As discussed in the Philippine FinTech landscape section later in the paper, several Philippine FinTech firms are working to do so.

⁹ Just over 10 percent of Filipino businesses identify a lack of financial access as the most binding constraint to their productivity and profitability, according to the World Bank Enterprise Surveys. More firms, though, pointed to the substandard business practices of a large informal sector (20 percent of surveyed firms) or the costs of corruption (12 percent) as their most significant obstacles. See “Enterprise Surveys: Philippines 2015 Country Profile” (The World Bank Group, 2015).

¹⁰ Rafaelita M. Aldaba, “Small and Medium Enterprises’ (SMEs) Access to Finance: Philippines,” PIDS Discussion Paper Series, No. 2012-05, Philippine Institute for Development Studies (Makati City: 2012).

Table 2. MSMEs in the Philippines: Definition and Economic Importance

	Definition by asset size	Number of enterprises	% of total enterprises	% of employment
Micro	Up to PHP 3,000,000	820,795	89.6%	30.4%
Small	PHP 3,000,001- PHP 15,000,000	86,955	9.5%	25.7%
Medium	PHP 15,000,001- PHP 100,000,000	4,018	0.4%	7.2%
Large	> PHP 100,000,000	3,958	0.4%	36.7%

Source: Philippine Statistics Authority; data are from 2016.

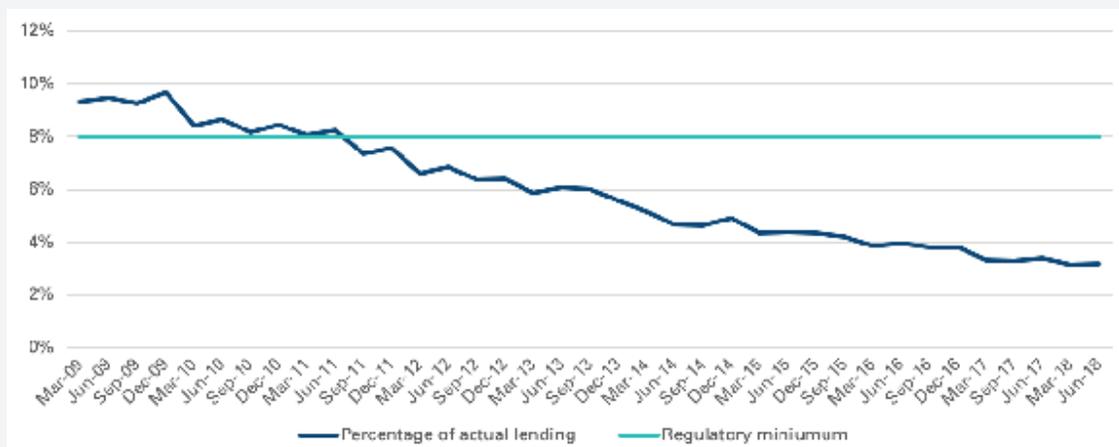
Box A. Mandatory SME Lending in the Philippines

Until 2018, the Philippines mandated that banks dedicate 10 percent of their total lending portfolio to MSMEs (8 percent to micro and small enterprises and 2 percent to medium-sized enterprises). Despite being considered at one time to be “one of the most important inclusive financing policies” in the Philippines,¹¹ these lending mandates of the 2008 Magna Carta Law have not had their desired effect for smaller businesses in the post-global financial crisis period.

Starting around 2011, as shown in Figure A, the banking industry continuously failed to meet the requirements for micro and small enterprises.¹² At a minimum, this was a problem of incentives. Many banks calculated that the fairly minor fees for noncompliance were less than the costs of compliance would have been. Banks no longer need to make this calculation, though. The mandated SME lending minimums expired in 2018, though the BSP continues to track whether banks meet the previous standards.

Figure A. Regulatory Minimum vs. Actual Bank Lending to Micro and Small Enterprises

% of total lending portfolio of all banks¹³



Source: “Banking Statistics,” Bangko Sentral ng Pilipinas.

¹¹ Niny Khor, Ryan Jacildo, and Ruth Tacneng, “Assessing Mandated Credit Programs: Case Study of the Magna Carta in the Philippines,” ADB Economics Working Paper Series, No. 463, Asian Development Bank (November 2015).

¹² Lending to medium-sized enterprises, on the other hand, has consistently—and perhaps unsurprisingly—exceeded the minimum of 2 percent.

¹³ This chart refers to data for the banking sector as a whole. As might be expected, rural and community banks exceed the lending targets for micro and small enterprises, allocating 20.9 percent of lending to these businesses in the first half of 2018. For commercial banks, which hold about 90 percent of banking assets in the Philippines, lending to micro and small enterprises during the same period represented only 2.5 percent of their total lending portfolio.

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RELIANCE ON PAPER-BASED PAYMENTS

As late as 2015, about 99 percent of the 2.66 billion monthly financial transactions in the country were made by either cash or check.¹⁴ In terms of value, paper-based transactions accounted for 92 percent of the estimated PHP 3.1 trillion (around US\$59 billion) in monthly payments.

¹⁴ James Hokans, “Country Diagnostic: Philippines” (BTCA, July 2015). See also “2017 Financial Stability Report,” BSP Financial Stability Coordination Council (June 2018).

¹⁵ FIS 2017. See p. 23.

Table 3. 2015 Baseline for Digital vs. Paper-Based Payments in the Philippines

Payer	No. of payments/month (millions)	% volume electronic	Total payments value PHP (millions)	Total payments value US\$ (millions)
Government	17	54%	236,436	5,666
Business	603	1%	2,546,647	61,120
Individuals	1,914	0.30%	311,605	7,479
Dev. partners	6	59%	368	9
Total per month	2,539	1.03%	3,095,056	74,273
Total per year	30,474	1.03%	37,140,670	891,279

Source: “Country Diagnostic: Philippines,” BTCA, 2015.

For Philippine consumers, “Cash is still king,” according to the BSP’s Financial Inclusion Survey.¹⁵ In its 2015 country diagnostic for the Philippines, the Better Than Cash Alliance (BTCA)—a UN-based global partnership supported by governments, nonprofits, and the private sector—reported only 0.3 percent of personal payments were made electronically. The rest were almost entirely transacted in cash. Even among the small number of banked Filipinos, only 18 percent have used their account for payments, according to the FIS. Nearly two-thirds of Filipino adults—64 percent—preferred to use cash, and 20 percent did not know they could use their account to make payments.

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For Philippine businesses, cash and checks are also the primary forms of payment. According to the BTCA, only 4 percent of payments by formal businesses were made electronically in 2015. For the country's large number of informal businesses, electronic payments were "close to 0 percent."¹⁶ Almost all business payments—which account for 76 percent of total payments for the country—were transacted by cash or check, and "checks remain by far the most widely used interoperable payment instrument."¹⁷ According to another BTCA study, Philippine businesses could save an average of US\$1.52 per transaction by moving to digital payments.¹⁸ This would mean significant savings, with BTCA estimating that "the resulting annual net savings for the banking system [would be] US\$272 million, equivalent to approximately 8.5 percent of the banking sector's entire net profit in 2013."

In addition to the costs of a paper-based payments system, there is also the issue of transparency. Cash enables corruption and theft because it leaves no record as it passes between hands. A study by Global Financial Integrity estimated US\$410 billion in illicit financial flows moved into and out of the Philippines from 1960 to 2011 based on a model that assumes "transactions in the underground economy are mostly conducted in cash."¹⁹ As many policymakers in the Philippines recognize, digitizing the payments systems would bring greater levels of transparency and reduce petty corruption by creating real-time records of payment flows that could be matched against, for example, trade invoices. The potential to reduce corruption has been one of the drivers behind the efforts by the Bangko Sentral ng Pilipinas to transform the payments system.

While the number of electronic transactions and the value of funds transacted electronically have grown since the 2015 baseline study, there remains an enormous opportunity for transitioning to digital payments in the Philippines for both consumers and corporates. This opportunity is bolstered by favorable fundamentals, including a young and growing population, a rapidly expanding economy, and widening usage of the internet and mobile devices.

¹⁶ Hokans, "Country Diagnostic: Philippines."

¹⁷ Hokans, "Leaving money on the table."

¹⁸ Ibid. An attractive alternative, according to the same study, would be outsourcing check payment to banks. Banks would receive electronic payments from businesses and then mail physical checks, saving participating businesses about 41 percent of current invoice payment costs.

¹⁹ Dev Kar and Brian LeBlanc, "Illicit Financial Flows to and from the Philippines: A Study in Dynamic Simulation, 1960-2011," *Global Financial Integrity* (February 2014).

THE DRIVERS OF THE COMING DIGITAL TRANSFORMATION

The underlying conditions of poor financial inclusion and the dominance of cash and checks imply a pressing need for a digital transformation of the Philippine financial sector. Based on three driving factors, there is good reason to believe this transformation may happen soon. These drivers are the country's young and increasingly urban demographics, the strong recent and projected performance of the economy, and the increasingly widespread adoption of mobile devices that enable internet access.

FAVORABLE DEMOGRAPHICS AND RAPID ECONOMIC GROWTH

The Philippines has a large, growing, and youthful population. It is currently the world's 13th most populous country, with about 110 million citizens.²⁰ By 2030, the population will be around 125 million, and it will surpass 150 million by 2050.²¹ The median age is 25 years old, compared to the regional median of 30. Nearly a third—32 percent—of the population is less than 15 years old. The country will remain relatively young over the next several decades. Even at mid-century, a projected 40 percent of the over 150 million Filipinos will be less than 24 years old.

The population is also in the process of urbanizing, an important transition that can catalyze innovation and increase the public's exposure to new technologies. By 2030, more than half of all Filipinos will live in cities. There are now 31 cities with populations over 300,000, as compared to 9 such cities two decades ago.²² Manila's population is projected to reach 17 million by 2030, when there will also be four other cities (versus only one at present) with populations of over 1 million: Davao, Cebu, Antipolo, and Zamboanga.²³

Moreover, this young, increasingly urban population is growing up during a period of rapid economic expansion. Propelled by public

²⁰ According to projections from the Population Division of the United Nations Department of Economic and Social Affairs (UNDESA), the Philippines will rise to 12th position around 2030, surpassing Japan. A decade later, though, in 2040, Egypt's population will grow larger than that of the Philippines, putting the Southeast Asian nation back at 13th place. See *World Urbanization Prospects: The 2018 Revision*, UNDESA (New York: 2018).

²¹ With the exception of Timor Leste, the Philippines has the fastest growing population in ASEAN, with an anticipated birth rate of 23 births per 1,000 people from 2015 to 2020. The regional average is 18 births per 1,000 people.

²² *World Urbanization Prospects*.

²³ *Ibid.*

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investments and strong consumer demand, the Philippine economy has been growing by approximately 6 percent annually since 2012 and is expected to continue to do so for at least the next five years. This has meant a tangible increase in living standards for Filipino households. On a per capita basis, GDP has risen by about US\$1,000 over the last decade, from US\$2,155 in 2010 to US\$3,099 in 2018. Current projections anticipate GDP per capita reaching \$4,324 in 2023, an additional increase of 40 percent. This performance is exceptional even by ASEAN standards.

²⁴ See Homi Kharas, “The Unprecedented Expansion of the Global Middle Class: An Update,” Brookings Institution, Global Economy & Development Working Paper 100 (February 2017).

²⁵ *Digital in 2018* (We Are Social and Hootsuite, 2018); hereafter referred to simply as Digital in 2018.

²⁶ FIS 2017.

As a result of the economy’s rapid growth, tens of millions of young Filipinos will become more prosperous than their parents, forming a large, emerging Philippine middle class. According to one study, by 2030 the middle class of the Philippines could outspend that of Italy.²⁴ One upshot of this increasing prosperity will almost certainly be greater demand for formal financial products, and as discussed immediately below, it is likely this generation of Filipinos will be increasingly ready to adopt FinTech products delivered on mobile devices.

²⁷ “The Mobile Economy: Asia Pacific 2018” (GSMA Intelligence, 2018); hereafter, GSMA 2018.

MOBILE AND INTERNET PENETRATION

The Philippines has long been a world leader in using mobile phones for social connection. As early as 2001, the country was known as “the texting capital of the world,” a title it still claims. Today, Filipinos are also increasingly connecting online via smartphones and social media platforms. In 2016, about 47 million Filipinos (46 percent of the population) actively used the internet. Over the last two years, 20 million new users have gone online, with an internet penetration rate of 63 percent in 2018.²⁵ Importantly, most adults who use the internet—86 percent—do so from mobile devices, while 16 percent have an internet subscription for their home.²⁶ This trend is likely to continue with the steady expansion of smartphone use. GSMA, a global business association for mobile operators, has projected that smartphone adoption in the Philippines will increase from 63 percent in 2017 to 79 percent in 2025.²⁷

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The country's widespread mobile internet access is likely to boost FinTech growth in several ways: by enabling the introduction of financial products on social media platforms, providing alternative data sources for credit providers, and expanding the e-commerce marketplace.

First, virtually every Filipino who has mobile internet access also uses social media. On average, Filipinos spend over four hours using the mobile internet daily, and almost all of this time is spent on social media.²⁸ In fact, at 3 hours and 57 minutes, the Philippines has the highest average amount of time spent on social media worldwide. As might be expected, the Philippines is one of Facebook's top countries, with 67 million Facebook users, or 3 percent of Facebook's total global user base.²⁹ As discussed later in the paper, mobile payments companies in the Philippines are already partnering with social media giants to introduce new financial products to their tens of millions of users.

²⁸ At 59 percent, the Philippines' social media penetration rate is relatively high by global standards. Indonesia, by comparison, has a mobile social media penetration rate of 45 percent.

²⁹ *Digital in 2018*.

³⁰ GSMA 2018.

Table 4. The Growth of Digital Connectivity in the Philippines, 2016 vs. 2018

	2016	2018	% growth
Active internet users	47.1 million	67.0 million	42.2%
Active social media users	48.0 million	67.0 million	39.6%
Mobile connections	119.2 million	121.4 million	1.8%
Active mobile social users	41.0 million	62.0 million	51.2%

Sources: *Digital in 2016 and Digital in 2018*, Hootsuite and We Are Social.

Second, 96 percent of mobile connections are pre-paid, one of the highest rates in the world.³⁰ Pre-paid mobile connectivity potentially provides FinTech companies with an alternative basis for assessing creditworthiness, even for unbanked segments of the population, as it demonstrates an ability to make regular payments. These data can be used to expand financial inclusion for individuals without a formal credit history.

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Third, internet access is steadily transforming into digital economic activity. To date, 25 percent of Filipinos have bought a product online using their mobile phone.³¹ Google and Temasek forecast that the Philippines' e-commerce market will grow from US\$500 million in 2015 to US\$9.7 billion by 2025, a 10-year compound annual growth rate of 34 percent.³² As more economic activity moves online, online payments will become increasingly essential to everyday activities.

³¹ Mobile internet connection speeds, however, remain sluggish. At 13.5 MBPS, the Philippines' average speed is far below the global average of 21.3 MBPS. See *Digital in 2018*. However, GSMA 2018 projects that half of users will have a 4G or 5G connection by 2025, compared to only 10 percent with 4G in 2017.

³² Rajan Anandan, Rohit Sipahimalani, Samuele Saini, Srikanth Aryasomayajula, and Well Smittinet, "e-Economy SEA 2018" (Google and Temasek, November 2018).

THE ROLE OF GOVERNMENT AND THE REGULATORY ENVIRONMENT

The government of the Philippines, particularly the Bangko Sentral ng Pilipinas, has taken a cautiously supportive stance toward the development of the FinTech sector. While acknowledging the potential introduction of new risks (including cybersecurity issues, reliability of third parties, fraud, and heightened procyclical forces), the BSP has so far sought to enable the expansion of FinTech in consideration of its potential to increase efficiency and overcome traditional barriers to financial access.

This section recounts the BSP's approach to developing the FinTech sector to date. It begins with an overview of its "test and learn" approach before discussing the BSP's national initiatives to enable and encourage the use of digital payments. Finally, the section reviews recent regulatory changes aimed at promoting the responsible development of the FinTech sector in the Philippines.

TEST AND LEARN

For the last 15 years, the BSP has taken what it calls a "test and learn" or regulatory sandbox approach to the application of new technologies in the financial sector. The idea is that before issuing new rules the BSP prefers to "fully understand the business model, assess risks and determine how appropriate regulations can be applied to mitigate these risks."³³ In practice, this means financial institutions under the BSP's supervisory jurisdiction may approach their regulator with proposals for pilot projects or pilot partnerships with FinTech firms that fall outside of the current regulatory framework. The BSP typically allows such experiments to go forward for a limited amount of time and a limited number of users.³⁴ Only after observing the initial outcomes of the new service does the BSP issue regulations to guide further development. This full "test and learn" cycle is described in Table 5.³⁵

³³ "Briefer on Fintech and Digital Financial Inclusion," BSP (February 26, 2018).

³⁴ Ibid.

³⁵ The length of time this process takes is adaptable to the circumstances. The introduction of e-money regulations followed about five years of observation, but the "test and learn" process for more recent innovations has proceeded more quickly.

Table 5. The BSP’s “Test and Learn” Approach to Technological Innovation

Phase	Description
1. Allow for market to develop and innovations to take place	After engaging with FinTech players, the BSP determines if the proposed innovation presents major regulatory concerns. If not, the BSP allows the market to develop and adopt the innovation.
2. Proceed with flexibility and with caution	During this phase, the BSP sets certain limits or parameters before FinTech players fully market their products and services.
3. Understand operating and business model	As the product or service is being offered in the market, the BSP works to develop a better understanding of the operating/business models and technical considerations.
4. Adopt appropriate regulatory approach	Once the BSP fully understands the operating/business model and detailed mechanics of the innovative product/service, appropriate regulations are then issued.
5. Closely monitor developments and related issues	Lastly, the BSP continues to monitor developments and introduce supervisory enhancements when necessary to address emerging issues and risks.

Source: Adopted from “Briefer on Fintech and Digital Financial Inclusion,” BSP, 2018.

The first of these “test and learn” pilots started in 2004. At the time, the BSP allowed the Philippines’ large telecommunications companies Globe and PLDT (through its subsidiary Smart) to pilot new mobile money products to their customers. As the BSP notes, there “were no established models to reference anywhere in the world,” and so the BSP allowed the industry players to proceed with pilots under close supervision but without introducing new rules. It was not until five years later, in 2009, that the BSP issued its “Guidelines on Use of Electronic Money.”

More recently, the BSP has followed the same approach with Lendr, a consumer lending platform developed by Voyager Innovations, an offshoot of PLDT. In this case, the BSP allowed Voyager Innovations (through its FINTQ arm) to develop and pilot an online lending platform for banks with little to no downtime. Since its launch in 2016, Lendr has become a leading platform-as-a-service for Philippine banks seeking to engage potential borrowers online.³⁶

³⁶ Landbank, PNB, and Camalig Bank have also worked with FINTQ to automate savings for salaried government workers and, based on these savings flows, offer mobile-based salary loans to this segment of customers. FINTQ has also developed a partnership with the Rural Bankers Association of the Philippines to encourage the RBAP’s members to expand online lending through the Lendr platform. The BSP defines salary loans (sometimes referred to as payday advances or payroll loans in other jurisdictions) as “unsecured loans, granted to individuals on the basis of regular salary, pension or other fixed compensation, where repayment would come from such future remunerations, either through salary deduction, debit from the borrower’s deposit account, over-the-counter payment, or other type of payment arrangement agreed upon by the borrower and lender.”

Finally, the BSP has taken the “test and learn” approach to allow Cantilan Bank, one of the country’s larger, rural banks, to adopt a cloud-based core banking computing system. A core banking system executes the back-end processes that enable banking transactions, the updating of accounts, and other fundamental recordkeeping and reporting functions. In 2017, Cantilan Bank approached the BSP with its ambition of becoming the first bank in the country to adopt a cloud-based core banking system. With the support of the BSP and a US\$150,000 grant from the Asian Development Bank, Cantilan Bank migrated its core banking processes to a cloud-based system operated by Oradian, a global technology company focused on expanding financial inclusion in emerging markets.³⁷

³⁷ For more on this project, see “Cloud-Based Banking Pilot Project to Improve Financial Inclusion in Philippines,” Asian Development Bank (July 26, 2017).

³⁸ “Digital Financial Inclusion,” BSP Series on Financial Inclusion in the Philippines, Issue No. 8 (BSP, 2018).

³⁹ “Briefing on Fintech and Digital Financial Inclusion.”

⁴⁰ Ibid.

NATIONAL INITIATIVES TO ENABLE DIGITAL PAYMENTS

Given the dominance of paper-based payments, the Philippine system needed new directives and standards to facilitate a transition to an electronic retail payments platform. For the last several years, the BSP has been working with the financial industry to introduce a new framework “to create a safe, efficient, and reliable electronic retail payment system that is interconnected and interoperable.”³⁸

The result is the National Retail Payment System (NRPS) and the NRPS Framework, which the BSP launched in December 2015. As yet another example of the BSP’s versatile and cooperative regulatory approach, banks were not mandated to participate in the NRPS during the first two years of its operation. This changed in November 2017, when the BSP issued Circular 980. This circular “operationalizes and enforces the adoption of the NRPS” by all of the financial institutions supervised by the BSP.³⁹ In practice, this means supervised financial institutions must “adopt transparent and fair market pricing of electronic payments, transition from exclusive bilateral to multi-party clearinghouse agreements, and provide electronic fund transfer facilities in all available channels.”⁴⁰ The BSP’s goal is that the enforcement of these measures will increase the usage of electronic payments from the 2015 baseline of 1 percent to 20 percent of all transactions by 2020.

To further operationalize the NRPS, the BSP has established two multi-party automated clearinghouse (ACH) frameworks: PESONet and InstaPay. PESONet—or the Philippine EFT System and Operations Network—batches electronic fund credits for transfers between banks with the aim of replacing the use of checks. In early 2019, 47 banks were using the PESONet ACH.⁴¹ Introduced in 2018, InstaPay is an electronic fund transfer system that enables “almost immediate” transfers of up to PHP 50,000 (or about US\$100) on demand.

REGULATORY DEVELOPMENTS

In addition to establishing the NRPS, the BSP has issued a number of new regulations since December 2016 to encourage digital financial inclusion.⁴² Among these, several new provisions focused on expanding BSP supervision among the kinds of small entities that often serve as the most accessible financial access points for many otherwise financially excluded Filipinos. New regulations include Circulars 938 and 942, which enhanced supervision of pawnshops and money service businesses in anticipation of these service providers expanding the use of electronic payments. Likewise, Circular 940 extended permission to banks to use third-party cash agents as part of cash-to-digital and digital-to-cash digital payments schemes, with the idea that these vendors can help banks onboard new clients from financially underserved communities.

The BSP has also sought to make it easier to open an account and to permit new kinds of payment activity online. To this end, Circular 950 relaxed some Know-Your-Customer standards for “low-risk” accounts and permitted in-person contact requirements to be fulfilled online. To encourage account ownership in general—and as a way of linking formal accounts to new mobile-based digital financial services—the BSP introduced guidelines for basic, “no frills” deposit accounts in Circular 992. These accounts have no minimum balance and are not allowed to charge dormancy fees.

⁴¹ Most, though, merely received transfers from PESONet, while only a handful of banks—HSBC, Philippine Trust Company, and UnionBank—enabled all PESONet functions, including sending funds via online or mobile banking from both corporate clients and individuals. See “List of Participating FIs PESONET Jan 2019” (Philippine Payments Management, Inc., January 2019). The list was last accessed by the authors on January 23, 2019, and is available online here: <https://goo.gl/s9hswP>.

⁴² For a further discussion of the regulations discussed here, see “Briefing on Fintech and Digital Financial Inclusion,” pp. 4-5.

They also do not impose any reserve requirements on banks to encourage their widespread use. Finally, the BSP assumed supervisory jurisdiction for virtual currencies with Circular 944. Under this rule, virtual currencies are considered as remittance channels, and by the end of 2018, seven firms had received licenses to transact remittances using virtual currencies.

⁴³ “Briefer on Fintech and Digital Financial Inclusion.”

⁴⁴ “Financial Authority Partner Profile: Bangko Sentral ng Pilipinas,” (R2A, 2018); available online and last accessed on January 23, 2019: <http://www.r2accelerator.org/bsp>.

Beyond new domestic rules, the BSP has established a formal strategic partnership with the Monetary Authority of Singapore (MAS). The two regulators signed a FinTech Co-operation Agreement in November 2017 to encourage collaboration on developing and supervising FinTech developments. As part of the agreement, the BSP and MAS will fast-track market entry of FinTech players from one jurisdiction to another with an aim “to minimize duplication of efforts and further promote the expansion of fintech innovations.”⁴³

Finally, the BSP is seeking to “lead by example” by further integrating technology into its own operations. To do so, the BSP has partnered with RegTech for Regulators Accelerator (R2A), an organization started by USAID, the Gates Foundation, and the Omidyar Network to help regulatory authorities adopt new technologies. Working with R2A, the BSP is developing its own set of application programming interfaces (APIs) to allow supervised financial institutions to submit reporting digitally and automatically. This will enable the BSP to receive data more frequently, validate data quality, and apply new tools for the analysis of the data that banks and other financial institutions submit.⁴⁴ In addition to the API project, the BSP is working with R2A to automate the processing of consumer complaints. This includes opening new submission channels such as text, the mobile application Viber, and a new BSP online portal.

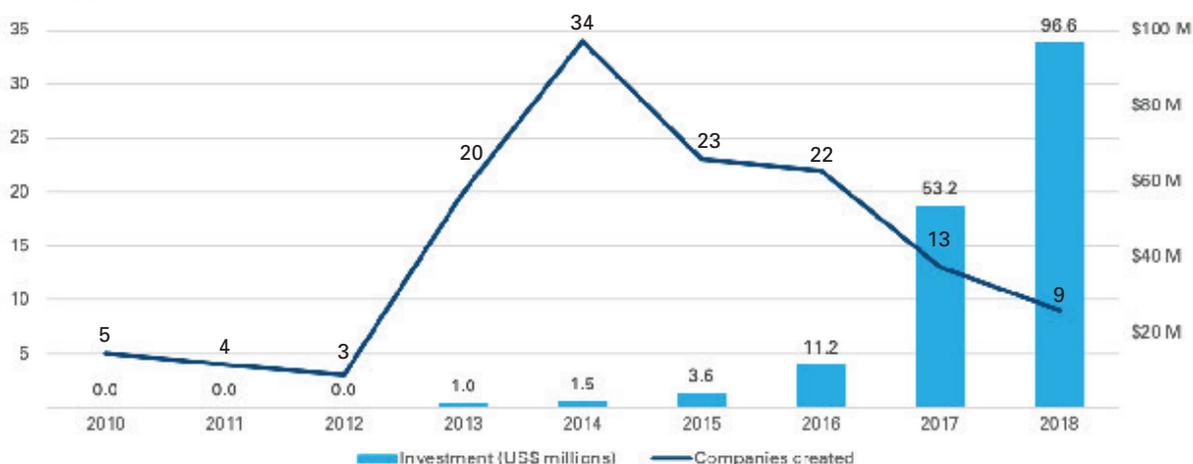
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Given its positive demographic and economic fundamentals—as well as a supportive regulatory environment—the Philippines may now have the opportunity to experience a dramatic, technology-driven transformation of its financial sector. And investors are taking notice. As shown in Figure 1, investors are beginning to direct more funds into the Philippines’ FinTech ecosystem, and many new companies have formed over the last several years.

⁴⁵ A TechFin is a technology company that is leveraging its large user base to introduce financial products at scale.

This section explores the activities of a maturing and diverse FinTech sector—comprised of telecommunication companies (telcos), foreign TechFins,⁴⁵ and domestic FinTech startups—across four verticals: payments, consumer lending, SME financing, and remittance verticals. While the focus is mainly on the activities of the disruptive new entrants, the section also includes some discussion of the preliminary FinTech collaborations pursued by traditional banks. Most banks, though, have only tentatively begun to explore FinTech products through narrowly focused partnerships with the telcos or FinTech startups. The exception is UnionBank, which has developed a reputation as the country’s most tech-savvy bank. Box B provides an overview of its pursuit of digital transformation.

Figure 1. Investment and New FinTech Companies Created in the Philippines



Source: “FinTech in Southeast Asia: Sector Snapshot” (Tracxn, 2018).

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PAYMENTS

The ambition to move away from paper-based payments is not new. As discussed, the BSP issued its “Guidelines on Use of Electronic Money” a decade ago, in March 2009, in response to the country’s “fast-growing electronic money business.”⁴⁶

The early leaders in digital payments in the Philippines were then—and are today—the telco duopoly of Globe and PLDT. In recent years, both have launched successful FinTech offshoots. Globe’s FinTech venture Mynt, established in 2015, operates a popular mobile wallet called GCash, which the company hopes will reach 20 million users over the next five years.⁴⁷ Voyager Innovations, a company PLDT launched in 2013, offers consumers the PayMaya mobile wallet. PayMaya had 8 million users at the end of 2017 and is aiming for 30 million users by 2020.⁴⁸ Interestingly, both wallets are working to capitalize on the widespread use of social media in the Philippines, and they have both partnered with Facebook Messenger to enable users to pay bills, transfer money to peers, and add funds to their mobile phone and data subscription plans directly from the social media application.

Unsurprisingly, it is through these two telco-founded FinTech firms that the rivaling Chinese TechFin giants Ant Financial and Tencent have chosen to enter the Philippine market. Ant Financial, the FinTech arm of Alibaba, one of the world’s largest e-commerce firms, moved first, taking a 45 percent stake in Mynt for an undisclosed amount in February 2017. About 18 months later, in October 2018, Tencent, the creator of WeChat in China, and KKR, a global investment company, invested a reported US\$175 million in Voyager.⁴⁹ As part of this deal, considered the largest tech investment to date in the Philippines of any kind, PLDT relinquished its majority ownership stake, though it maintains its place as the largest shareholder. Tencent’s investment was followed by a \$40 million capital infusion from the World Bank’s International Finance Corporation (IFC) and the IFC Emerging Asia Fund in November 2018. For both Ant Financial and Tencent’s investments in the

⁴⁶ “BSP Issues Guidelines on Use of Electronic Money,” (BSP, 2009).

⁴⁷ Louella Desiderio, “Globe expects GCash users to hit 20 M,” *Philippine Star*, December 3, 2017.

⁴⁸ Denise A. Valdez, “PayMaya sees significant customer growth,” *Business World*, November 19, 2018.

⁴⁹ Judith Balea, “Tencent makes first investment in the Philippines as part of \$175m round,” *Tech in Asia*, October 4, 2018.

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Philippines, the motivation of the Chinese firms was primarily to enter into the payments market, but as noted below, both Mynt and PayMaya offer a variety of FinTech services beyond payments.

The other major international entrant of 2018 in the Philippine digital payments vertical was another TechFin, the Singapore-based GrabPay. Grab is an app-based ride-hailing and delivery startup that operates throughout Southeast Asia.⁵⁰ By 2017, Grab had achieved nearly 70 million downloads of its app, and the company has used this large user population to introduce new financial products through its GrabPay mobile wallet. Grab's entry into the Philippines reached a milestone in 2018 when GrabPay, which enables payments through QR codes or peer-to-peer transfers, received its e-money license from the BSP. Grab plans a major expansion of its digital payments products in the Philippines in 2019 and recently announced a partnership with SM Investments Corp (SM), a major retail conglomerate with 70 malls and over 2,000 stores across the Philippines.⁵¹ In terms of its potential impact on the financial sector, the partnership is all the more significant because SM also owns BDO Unibank, the largest bank in the country in terms of assets.

In addition to the large telcos and newly arrived foreign TechFins, several smaller Philippine startups are working to provide digital payment services to Filipinos and Philippine businesses. Dragonpay, for instance, was founded in 2010 to enable online shopping without the use of credit cards. By 2017, Dragonpay was processing around 700,000 transactions monthly.⁵² Another payments startup, Coins.ph, enables users to pay bills, make online purchases, and buy digital currencies via a mobile app.⁵³ By May 2018, Coins.ph had attracted 5 million registered users to its platform. Other Philippine startups in the payments space include Ayannah (mobile wallet and remittances, as discussed further below), ExpressPay (domestic money transfers and bills payment), PhilSmile (tuition payments for students), Qwikwire (bills payment), TagCash (mobile wallet for retail purchases), and Bitbit (mobile wallet for peer-to-peer transfers).

⁵⁰ Grab acquired Uber's entire ASEAN business in March 2018.

⁵¹ Tom Noda, "GrabPay Wallet Expands in the Philippines," Fintechnews Singapore, December 5, 2018.

⁵² See the interview with DragonPay's Founder and COO Robertson Chiang in "Off to a great start: The Philippine startup ecosystem" (PwC Philippines, 2017).

⁵³ Coins.ph was the first company in the Philippines to hold a BSP license to operate a virtual currency exchange.

CONSUMER LENDING

For the unbanked, FinTech firms are working to offer millions of consumers access to formal credit products for the first time.

As with payments, the lending space has attracted investments from the major telcos. As discussed above, FINTQ's Lendr platform has become an important tool for several traditional banks seeking to offer lending products online. Across all of its partners, FINTQ had extended PHP 40 billion (about US\$750 million) in loans through the Lendr platform as of September 2018.⁵⁴ For its part, Mynt launched Fuse, its lending arm, in 2018 to provide credit to the millions of GCash users. Fuse's GCredit product, like GCash, enables retail shopping through scanning QR codes with a mobile device, except that consumers make their purchases on credit, with credit limits set by data-driven scoring processes.⁵⁵

In addition to the large corporates, some FinTech startups are offering digital lending products to consumers. Tala and Cashalo, for instance, both allow Filipinos without a credit history to apply for a loan of up to PHP 10,000 (about US\$200) via mobile apps. Cashalo also offers installment payments via its mobile app for in-store purchases at Robinsons Department Stores, a large national chain. Offering a similar product, Home Credit Philippines enables users to make installment purchases in malls and at online retailers. The Indonesian firm Akulaku, which operates on a similar installment-based business model, is planning to use a recent US\$70 million Series C funding round to expand operations throughout Southeast Asia, including in the Philippines.⁵⁶

Lending products aimed at unbanked consumers require an alternative underlying credit-scoring methodology that can assess the repayment capacity of borrowers. To this end, several FinTech companies in the Philippines are working to develop data analytics that inform alternative credit scoring systems.⁵⁷ Mynt and FINTQ each announced digital credit scoring systems in 2018. In each case, users will have access to what Mynt calls a "trust score." Tala's app

⁵⁴ FINTQ's website, as accessed on January 25, 2019.

⁵⁵ Mynt is also exploring whether other firms might offer lending products to GCash users. In a recent interview, Mynt CEO Anthony Thomas said, "We want to increase our cooperation with banks. Ultimately, I don't believe that Mynt has to be the only lender for GCredit, but GCash can be more of a marketplace on which other lenders could also [provide credit lines]." See Georgiana Lee, "Ant Financial-backed mobile payment firm Mynt seeks Philippine bank partners to grow microloans business," South China Morning Post, November 12, 2018.

⁵⁶ "Akulaku raises US\$70 million in Series C funding," IDN Financials, October 31, 2018.

⁵⁷ This sort of alternative credit scoring is controversial, however. Human rights organizations and other analysts have charged that it may be used by firms and governments to invade consumers' right to privacy. See, for instance, Maya Wang, "China's Chilling 'Social Credit' Blacklist," Wall Street Journal, December 11, 2017.

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uses mobile device permissions to access and analyze what its founder calls “daily life data”—app usage, text confirmations of bill payments, phone loads, and other information—to determine the users’ repayment capacity. Ayannah’s KayaCredit service performs a similar analysis and connects users to a network of lenders that compete for their business.

⁵⁸ James A. Loyola, “Acudeen to lend P5-B to SMEs in 2019,” *Manila Bulletin*, December 9, 2018.

⁵⁹ Jon Russell, “Philippines SME lending startup First Circle raises \$26M ahead of regional expansion,” *Tech Crunch*, October 3, 2018.

ALTERNATIVE FINANCE FOR SMES AND FARMERS

As discussed above, Philippine SMEs often struggle to access bank loans, and FinTech startups are working to extend credit to SMEs through alternative lending products. The firm Acudeen, for example, has created an online platform that enables banks and other investors to buy accounts receivable from SMEs at a discount, thereby easing cash flow pressures on small firms. The FinTech firm First Circle also helps SMEs bridge cash flow gaps through invoice financing via an online portal. Additionally, First Circle offers purchase order financing to provide SMEs enough capital to meet buyer demands they would otherwise have to turn down. Loan applications are completed entirely online, and approved credit is disbursed within about five days of the application.

Both firms are seeing significant early uptake of their products and are attracting investors. In 2018, Acudeen facilitated PHP 500 million (about US\$10 million) in receivables financing (also known as factoring), assisting over 1,000 SMEs. The company projects PHP 5 billion (about US\$100 million) in SME financing to pass through its platform in 2019.⁵⁸ For its part, First Circle completed a US\$26 million funding round in October 2018 with the aims of expanding services throughout the ASEAN region.⁵⁹

Alongside these products, several other startups have established “crowdfunding” platforms that extend credit to SMEs and small farms. Typically, these platforms link borrowers seeking short-term loans with individual investors. The Singapore-based SeedIn, for example, offers Philippine SMEs loans of up to US\$300,000 as funded by individuals who are promised annualized returns of

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7 percent. Similarly, Cropital allows investors to extend loans of between PHP 5,000 and 50,000 (about US\$100 to US\$1,000) to particular farms for a specific crop cycle. Returns are based on a fixed percentage of the net profit from the harvest, with investors so far averaging 8 percent in returns in six months.⁶⁰

This kind of crowdfunding has attracted some controversy, though. As the BSP has noted, “While crowdfunding has potential to expand financial access for new businesses and MSMEs, there is also heightened risk of investor and consumer abuse.”⁶¹ In May 2016, the Securities and Exchange Commission of the Philippines (SEC) issued a warning to consumers that FarmOn, another crowdfunding platform for farmers, was operating without a license and therefore was “not authorized to solicit investments.”⁶² The next year the SEC requested public comment on rules for lending- and equity-based crowdfunding platforms. The proposed rules require crowdfunding platforms to register as financial intermediaries and follow relevant reporting regulations. They also impose ongoing disclosure requirements on borrowers that, according to one legal analysis, “may create an unintended consequence of disincentivizing companies from using [crowdfunding].”⁶³

REMITTANCES

Around 10 million Filipinos reside abroad on a permanent or temporary basis, sending back about US\$30 billion annually to their home country.⁶⁴ These remittances account for over 10 percent of national GDP. The opportunity for FinTech disruption here is high, as almost all remittance transactions take place in person with remittance agents at a bank or another over-the-counter financial institution. According to the BSP’s 2017 Financial Inclusion Survey, 93 percent of remittance senders and 83 percent of recipients used remittance agents to conduct the transaction. As the BSP concluded, “Digitizing these payment and remittance transactions is a crucial step towards digital financial inclusion.”⁶⁵

⁶⁰ Cropital website, as accessed on January 23, 2019.

⁶¹ “Briefer on Fintech and Digital Financial Inclusion.”

⁶² “FarmOn/FarmOn Agricultural Production is not registered with the commission and not authorized to solicit Investments through its website. www.farmon.ph,” SEC of the Philippines, May 17, 2016.

⁶³ See Leia Clarissa Veronica R. Veracruz, “Proposed regulations and rules on crowdfunding in the Philippines,” *Asia Business Law Journal*, July 19, 2018. To date, the SEC has not finalized and adopted its crowdfunding rules and regulations on crowdfunding.

⁶⁴ Estimates vary regarding the total stock of Filipinos abroad. The Philippines’ Department of Foreign Affairs estimated over 8 million Filipinos were living outside the country in 2015. There is more clarity for the category of Overseas Filipino Workers (OFWs), those Filipinos who are documented land-based or sea-based workers spending over six months outside of the country. The Philippines Statistics Authority put the number of OFWs at about 2.4 million in 2017 or just under 5 percent of the adult population. Remittance data from the World Bank are available from the Knomad portal: knomad.org.

⁶⁵ FIS 2017, see p. 9.

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As in other areas, the telcos were early movers in this space. In 2004, PLDT introduced a feature called Smart Padala (padala means “send” or “remit” in Tagalog) to its Smart Money product to enable remittance payments between mobile users. By 2006, according to one initial assessment, US\$50 million a month was flowing into the Philippines via mobile channels.⁶⁶

At present, the two major mobile wallets offer a remittance feature. PayMaya has partnered with WesternUnion to enable users to receive international remittances via its mobile wallet. Mynt, continuing its partnership with Ant Financial, has recently established what it calls the world’s “first blockchain-based cross-border digital wallet remittance service,” enabling Filipino workers in Hong Kong to send remittances via GCash.⁶⁷ Still, the blockchain-based channel aside, almost all remittance transactions across the PayMaya and GCash platforms still require either the sender or recipient to go in person to a physical location to initiate or claim the transfer.⁶⁸

Among Philippine startups, several firms are working to modernize remittances. One approach has been to enable online payments and purchases for delivery in the Philippines. Ayannah, for example, has developed the Sendah service, which allows Filipinos residing or working overseas to make online purchases, load mobile phones, and pay bills on behalf of family back home via an online platform.⁶⁹ Another startup called BeamAndGo offers a similar service.

Other Philippine startups are working to enable remittances through the use of cryptocurrencies. One of these companies, Satoshi Citadel Industries, introduced the “Rebittance” service in 2014, which makes remittance transfers through Bitcoin. Another early player was Abra, a US-based company that launched in the Philippines in 2016 as its first international market. Abra’s innovation was to allow anyone with the app to become a cash-to-digital or digital-to-cash roaming

⁶⁶ See Michael Trucano, “m-banking, m-remittances: Case studies from the Philippines,” *InfoDev*, December 19, 2006. More recent data on the total volumes of mobile remittance transfers are not available publicly.

⁶⁷ “AlipayHK and GCash Launch Cross-Border Remittance Service Powered by Alipay’s Blockchain Technology,” *BusinessWire*, June 25, 2018.

⁶⁸ This is also true of remittance services offered by the startup Coins.ph, which manages over 30,000 cash disbursement and collection locations around the Philippines.

⁶⁹ Ayannah has also developed software as a service (SaaS) products for Philippine and foreign banks to facilitate digital remittances.

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teller.⁷⁰ At the end of 2018, two additional Philippine startups, Pearl Pay and Global Overseas Workers, were in the process of launching cryptocurrency-based remittance products.

⁷⁰ Abra has since repositioned itself as a cryptocurrency investment platform.

While the companies above have focused on peer-to-peer transfers, Bloom Solutions reduces costs for remittance companies by using Bitcoin as a cross-country settlement medium along similar lines as those pioneered by the Kenyan startup Bitpesa. As Luis Buenaventura, the founder of Bloom Solutions, wrote in a white paper for the firm, “Bloom works primarily with established remittance businesses, which are already providing a traditional money transfer service, and teaches those businesses how to leverage Bitcoin to reduce their foreign exchange costs and speed up their settlement processes.”⁷¹

⁷¹ See “Reinventing Remittances with Bitcoin” (Bloom Solutions, 2017).

Box B. The Transformation of UnionBank

While all offer some form of online or app-based banking experience, the largest banks in the Philippines have generally not made large, proactive investments in internal FinTech transformations or engaged in extensive external collaborations. UnionBank, though, stands out in its commitment to embracing technology in both its back-end processes and its consumer-facing products.⁷² The bank’s leadership believes the most important indicator in this transformation is attracting new customers and that the best route to attracting new customers is by creating new communities and ecosystems.⁷³ This philosophy has driven several of UnionBank’s most high-profile new projects in recent years. A couple of these initiatives are discussed here.

Through Project i2i, UnionBank has sought to create a new ecosystem to facilitate domestic remittances between rural banks.⁷⁴ The hundreds of rural banks in the Philippines are primarily deposit-taking institutions that extend high-interest loans to farmers, fisherfolk, and microenterprises in rural communities. They are typically not well connected to each other or the larger banking industry, and so UnionBank, partnering with the US-based FinTech firm ConsenSys, created a blockchain-based, interbank payment switch to streamline and digitize the process of sending domestic remittances from one

Box B. Continued

rural bank to another, with UnionBank acting as the operator of the system and as the settlement bank. The pilot was conducted in 2018 and involved five rural banks: Cantilan Bank, City Savings, Fairbank, PR Savings Bank, and Progressive Bank. The initial results were impressive, as the time for delivery of a remittance transaction fell from between one and 30 days to about five minutes.⁷⁵

UnionBank also is attempting to redefine what it means to go to a physical bank branch. The bank's leadership has committed to not opening any new traditional bank branches, but to focus instead on creating a new kind of banking experience it calls an "Ark," which looks more like a coffee shop and events space than a bank.⁷⁶ UnionBank opened its initial prototype of this concept in Manila in 2017. Upon entering the Ark, visitors receive an iPad, which they can use to conduct traditional banking business on the cloud, later receiving receipts for transactions via SMS or email. Again, the emphasis is on creating new communities, this time in physical, instead of digital, space. As UnionBank's Chairman Justo Ortiz said at the Ark's public opening in 2017, "The idea is to make this a community space, an interactive space, a space for co-creation, and a space where we can actually have great experiences that we can go home and talk about and hopefully invite others to come to UnionBank."⁷⁷

⁷² Their explicit model in this endeavor has been DBS, the Singaporean bank often vaunted as one of the world's most technologically advanced banks. See "The Philippines: UnionBank takes a digital journey into the unknown," *Euromoney*, September 26, 2018.

⁷³ UnionBank CEO and President Edwin Bautista told *Entrepreneur* magazine, "Facebook is an ecosystem, Amazon is an ecosystem, WeChat is an ecosystem. The world is already moving to ecosystems, many just don't recognize it yet." See Roel Landingin's "Union Bank's Great (Digital) Leap Forward," November 23, 2018.

⁷⁴ The project's name refers to widening financial connectivity from institution-to-institution, individual-to-individual, and island-to-island.

⁷⁵ Reuel John F. Lumawag, "Unionbank rolls out project for rural banks," *Sun Star Davao*, May 22, 2018.

⁷⁶ The biblical reference to one world dramatically and suddenly passing away to be rebuilt by a small number of survivors suggests how UnionBank views the coming transformation of the banking sector.

⁷⁷ Gracee Bongolon, "The Ark by Unionbank: Grand Launch 2017," YouTube video, November 27, 2017: <https://youtu.be/uUVhHbdC0Q0>.

ONGOING CHALLENGES IN THE DEVELOPMENT OF THE SECTOR

The driving forces of demographics, economic performance, and mobile penetration, as well as the supportive approach of the BSP, all bode well for the further expansion of a diverse and innovative FinTech sector in the Philippines. Still, there are several outstanding challenges facing the development of the sector. This section briefly takes up three of them. First, tens of millions of Filipinos have never had access to formal finance, and nation-wide financial literacy is limited. Second, Philippine FinTech startups face a pair of related frictions: access to capital and access to talent. Third, with the exception of UnionBank and a few others, the banking sector as a whole has been relatively slow to embrace technological change, and it is an outstanding question whether the Philippines' major banks are ready for the disruption that may be on the horizon.

⁷⁸ "Enhancing Financial Capability and Inclusion in the Philippines: A Demand-side Assessment," *The Finance & Markets Global Practice*, World Bank Group (July 2015).

⁷⁹ Imelda Calapre Montalbo, Angeline Mag-aso Pogoy, Gwendelina A.V., and Genalen M.P., "Financial Literacy of Professional and Pre-Service Teachers in the Philippines," *Journal of Global Economics*, Vol. 5, Issue 3 (2017).

LOW FINANCIAL LITERACY RATES AND POTENTIAL PUBLIC RESISTANCE TO DIGITAL PRODUCTS

Low financial inclusion in the Philippines is correlated with low financial literacy. As a 2015 World Bank survey of 3,000 adults concluded, "Knowledge of basic financial concepts is a significant challenge in the Philippines."⁷⁸ The study found that about two-thirds of the adult population lacked the basic numeracy needed to make rudimentary price comparisons, and only 29 percent of survey respondents were able to correctly answer simple questions about compound interest.

A more recent study of educational professionals in the Philippines found similarly low levels of financial literacy. In a survey of over 1,900 teachers from both public and private schools across the country, only about a quarter were able to pass a basic financial literacy quiz, and less than 6 percent passed a more sophisticated quiz that included questions about long-term investments, volatility, and diversifying risks.⁷⁹ The authors, researchers from Cebu Normal

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University, concluded that educators in the Philippines “have limited knowledge and understanding of basic financial ideas on numeracy, compound interest, inflation, time value of money, money illusion and functions of the stock market.” This is a worrying conclusion about the nation’s educators, particularly when combined with the World Bank’s finding that the financial knowledge and habits developed in childhood have life-long implications for financial decision-making.⁸⁰

Low financial literacy rates also have implications for the adoption of FinTech products. First, they imply that financial education will be integral to the uptake of these products, particularly among unbanked segments of the population. Second, there will be a heightened need for vigilance against scams. Filipinos are already more reluctant to share personal financial data online than their peers across Southeast Asia. According to research from BBVA, nearly 70 percent of Filipinos were uncomfortable sharing financial information online, the highest rate among the top six ASEAN economies.⁸¹ High-profile cases of fraud could exacerbate these concerns and slow digital financial inclusion.

TWO CHALLENGES FOR FINTECH STARTUPS

A pair of recent startup surveys—one by PwC and the other by Ernst & Young—have both highlighted access to capital and access to talent as barriers for the growth of young Philippine FinTech firms.⁸² These challenges are, of course, related, as startups typically require seed capital to hire and retain top talent during the early growth stages of the firm when cash flow is often negative or irregular.

According to PwC’s 2017 “Philippine Startup Survey,” the top restraint preventing innovation among the tech startup community was access to financial resources, as identified by 81 percent of respondents. The reason is almost certainly connected to the fact that beyond angel investment, there is very little access to venture capital in the Philippines, as born out in Ernst & Young’s 2018 “ASEAN FinTech Census.” As shown in Figure 2, out of FinTech

⁸⁰ See pp. 45-46 in “Enhancing Financial Capability and Inclusion in the Philippines: A Demand-side Assessment.”

⁸¹ “Fintech in Emerging ASEAN: Trends and Prospects,” BBVA Research (BBVA, June 2017).

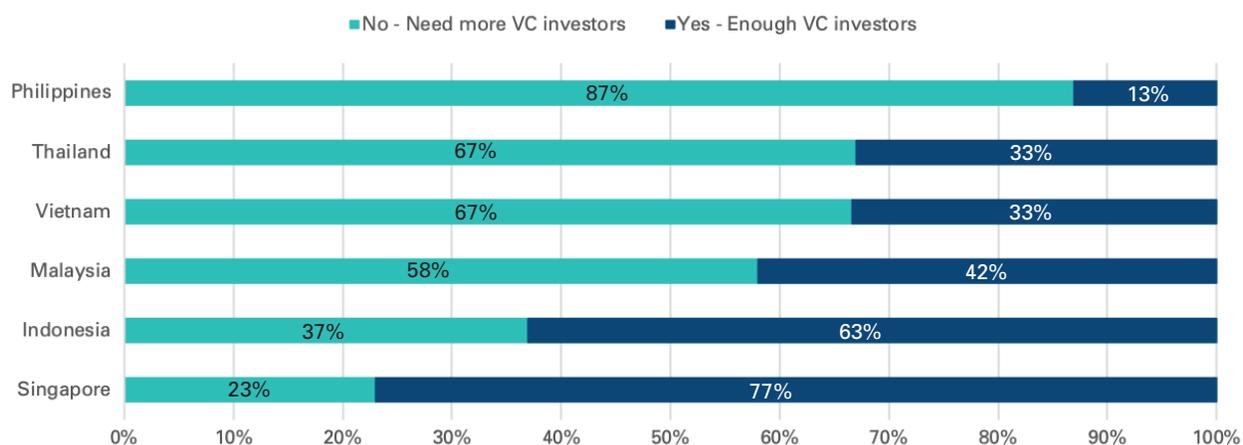
⁸² See “Off to a great start: The Philippine startup ecosystem” (PwC, 2017) and “ASEAN FinTech Census” (Ernst & Young, 2018). For methodological reasons, both surveys should be interpreted cautiously as regards to their specific implications for the narrow Philippine FinTech community. While 106 Philippine tech startups responded to the PwC questionnaire, only 10 respondents came from the financial services industry. On the other hand, while the 251 participants in the Ernst & Young survey were all FinTech executives, only 7 percent were Filipino.

ONGOING CHALLENGES IN THE DEVELOPMENT OF THE SECTOR

firms from the major Southeast Asian economies, those from the Philippines were the least likely to report that there was sufficient venture capital available in their market.

Figure 2. Access to Venture Capital for FinTech Firms in Southeast Asia

% of total lending portfolio of all banks



Source: "ASEAN FinTech Census," Ernst & Young, 2018.

After access to finance, Philippine tech startups surveyed by PwC were most likely to cite a lack of talent as a barrier to their development. Nearly half of respondents did so, and 36 percent said talent retention was one of the challenges they faced when starting their business. The Ernst & Young survey of exclusively FinTech firms found a similar result. Among the Filipino respondents, two-thirds said there was a lack of FinTech talent in their country, and 82 percent reported having difficulty hiring the right talent. The lack of FinTech talent appears to be common, however, across Southeast Asia, and the Philippines performs slightly better on this count than its regional neighbors. Over 90 percent of surveyed FinTech firms in Indonesia, Malaysia, and Thailand found it difficult to hire the talent they needed.

FINTECH INTEGRATION WITHIN THE COUNTRY'S LARGEST BANKS

With few exceptions, the traditional banking sector in the Philippines has approached financial technology through narrowly focused,

ONGOING CHALLENGES IN THE DEVELOPMENT OF THE SECTOR

product-specific partnerships.⁸³ These collaborations typically involve the bank adopting and branding an externally developed mobile platform for use by its customers. Fully integrating new financial technologies into back-end processing and product development, however, does not appear to have been a top priority so far for the country's largest banks.

There are perhaps two explanations for the current status quo. First, the traditional way of doing business seems to have been working fairly well. Banks have rapidly expanded credit over the last several years while reducing the rate of non-performing loans and improving overall stability.⁸⁴ Second, until recently, the FinTech sector in the Philippines may not have been mature enough to operate at the scale and efficiency demanded by banks. In its "Open Banking Readiness Index," the international FinTech firm Finastra ranks the Philippines near the bottom of the list of Asia-Pacific countries. Interestingly, the lowest marks the Philippines receives in this index are not related to the banks' capacity but to the quality of the country's FinTech ecosystem.⁸⁵ In other words, bank-FinTech collaboration may have been limited as much—or more—by the FinTech side of the equation as by the banking side.

Still, there are risks to complacency. As McKinsey & Company recently asked, "In ten years, two-thirds of the Filipino workforce won't know what life was like before the internet. Are banks ready to meet the needs of these women and men, who will command the largest share of the country's purchasing power by the coming decade?"⁸⁶ With this looming question and the recent expansion of the FinTech sector in mind, more banks have taken initial, sometimes tentative, steps to incorporate FinTech products into their offerings, to one degree or another. However, whether they are ready to embrace a full digital transformation of their operations and product offerings remains an outstanding question.

⁸³ UnionBank is the clearest outlier, but Landbank, Security Bank, and Cantilan Bank have also been fairly proactive in integrating technology in both their back-end processing and consumer-facing products.

⁸⁴ "Banking," in *The Report: Philippines 2018* (Oxford Business Group, 2018).

⁸⁵ "Open Banking Readiness Index" (Finastra and IDC Financial Insights, 2018).

⁸⁶ "The Philippines Growth Dialogues: Kristine Romano, Nestor A. Espenilla, Jr., and Nestor Tan" (McKinsey & Company, June 2018).

CONCLUSION

While questions remain about the state of financial literacy, the availability of capital and talent for FinTech startups, and the response of the traditional banking sector to potential technological disruption, it appears clear that the Philippine FinTech sector—as well as the financial sector as a whole—may soon enter a new phase of development. This transformation will be driven by a large, mobile-savvy, increasingly well-off generation of Filipinos who will demand digital financial services. Under the supervision of a supportive and engaged regulator, a diverse and maturing industry of FinTech players are working to offer this population a variety of new products to meet their payment, credit, remittance, and other financial needs.

A digital transformation of financial services in the Philippines could have widespread benefits for the population and the economy. It would almost certainly increase access to savings and insurance products that would improve the financial security of millions of Filipinos who are currently financially excluded. Moving away from paper-based payments would lower the costs of these services as a result of falling business and banking overhead costs, while also making corruption more difficult. None of this, though, will happen by itself. Realizing the potential of this moment will likely require deeper dialogue and collaboration among FinTech firms, traditional financial institutions, and government actors, as well as continued education and engagement with the population at large, particularly with those Filipinos who lack financial access.

ABOUT US

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