# THE GLOBAL FINTECH LANDSCAPE

HOW EMERGING TECHNOLOGIES ARE RESHAPING FINANCIAL SERVICES IN COUNTRIES AROUND THE WORLD

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### **KEY POINTS**

- Since sprouting in the US and UK around 10 years ago, fintech has spread globally. Now, after years of proliferation, countries around the world are starting to see their fintech industries mature. Additionally, we continue to see the emergence of new hotbeds for fintech. The spread of fintech can be largely seen in the emergence of fintech hubs cities where startups, talent, and funding congregate which are proliferating globally in tandem with ongoing disruption in financial services.
- This report compiles various fintech snapshots, which together illustrate the global proliferation of fintech. Each provides an overview of the fintech industry in a particular country, and details the evolution of its development. Additionally, we include notable fintechs in each geography, and discuss what the opportunities or challenges are for that particular domestic industry.
- Besides the US and UK, there are plenty of other countries developing strong fintech hubs. These include Australia, Switzerland, and China, which are profiled in this report. These countries have managed to leverage their stable financial centers of Sydney, Zurich, and Shanghai, respectively, to spur fintech development and attract funding.
- There are also a number of emerging fintech markets, including Brazil,
  Israel, and Canada, that are likely to play a big part in the global fintech
  ecosystem in the future. These countries have nascent but rapidly
  developing fintech hubs, as well as supportive regulatory environments, that
  could help them cement strong positions in the broader fintech scene.
- Many more fintech hubs will likely morph into big fintech players. This
  could push investors to increasingly wake up to the opportunities in new
  markets, leading fintech funding to become more diversified in the future,
  particularly outside of the UK and US.

Download the charts and associated data in Excel »

# INTRODUCTION

Since sprouting in the US and UK around 10 years ago, fintech has spread globally. Now, after years of proliferation, countries around the world are starting to see their fintech industries mature. Additionally, we continue to see the emergence of new hotbeds for fintech. This indicates that the space is still far from being fully developed, and that there are many new ways in which startups and their technologies continue to change financial services. The fact that many new players are emerging in the space also suggests that attention is shifting away from the main countries where fintech is prevalent, and that investors are seeing the potential of newer, conventionally untapped markets.

The spread of fintech can be largely seen in the emergence of fintech hubs — cities where startups, talent, and funding congregate — which are proliferating globally in tandem with ongoing disruption in financial services.

These hubs are all vying to become established fintech centers in their own right, and want to contribute to the broader financial services ecosystem of the future. Their success depends on a variety of factors, including access to funding and talent, as well as the approach of relevant regulators.

This report compiles various fintech snapshots, which together show the global proliferation of fintech, and illustrate where fintech is starting to mature and where it is just breaking onto the scene. Each snapshot provides an overview of the fintech industry in a particular country, and details what is contributing to or hindering its further development. We also include notable fintechs in each geography, and discuss what the opportunities or challenges are for that particular domestic industry.

# MATURING MARKETS

Besides the US and UK, there are plenty of other countries developing strong fintech hubs. These include Australia, Switzerland, and China, profiled below. Notably, these countries have managed to leverage their stable financial centers of Sydney, Zurich, and Shanghai, respectively, to spur fintech development.

#### **Australia**

Australia is seeing an increase in fintech-related activity as the government forms fintech agreements with other countries around the world and launches initiatives designed to boost the industry. At the same time, banks are increasingly releasing innovative new products, and funding for fintech startups is continuing to gather pace. The Australian fintech scene is <u>currently driven</u> mostly by its 512 domestic firms, with just 67 foreign startups in the country. However, it seems likely that, with time and continued government support, this will change and more foreign fintechs will decide to establish their Asia-Pacific (APAC) headquarters in Australia. That will be aided by the country's proximity to China, the use of English as its official language, and its Western laws and customs.

AUSTRALIA BY NUMBERS		
*	Population	24.6 million
血	Population (15+ yrs) with a financial account	99.5%
	Adult population that has used a credit or debit card (2017)	90%
	Mobile banking penetration	49%
414	Regulatory bodies relevant to fintech	Australian Securities and Investments Commission, Reserv Bank of Australia, Department of the Treasury, Australian Prudential Regulatory Authority, Council of Financial Regulators
(in)	Fintech-based agreements with other countries	Hong Kong, Malaysia, Japan, Kenya, UK, Canada
ē	Total fintech funding in 2016 (Note: Latest year for which data is available)	\$71 million

#### Fintech Hubs

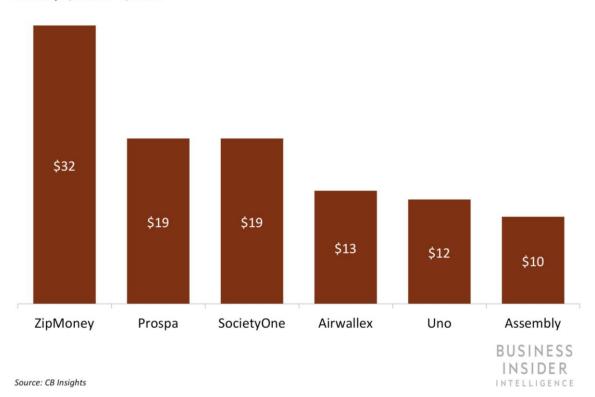
There are two Australian cities in particular that have built reputations domestically as fintech hubs.

Sydney. In addition to being Australia's financial center, Sydney has established itself as the country's top fintech hub, with 60% of Australia's fintech companies located there. That's likely because Sydney has the largest population in the country, and therefore offers the greatest potential market for fintechs. Additionally, Sydney has a plethora of accelerators and incubators, including Springboard, an accelerator that connects Australia's female entrepreneurs seeking capital and partnerships, and Stone & Chalk, which claims to be the largest fintech center in Asia. Startups can also use the University of Sydney — one of the largest universities in the country — to find talent for their companies.

Melbourne. Although considerably behind Sydney, Melbourne has made recent efforts to become more active in the area of fintech. The State Government of Victoria has <u>called for</u> "experienced innovation hub operators" to help it establish a fintech center in Melbourne, and The Andrews Labor Government announced that it will launch two new financial technology centers in <u>December 2017</u> — in partnership with Stone & Chalk and YBF Ventures — to support local startups. Since Melbourne has a more nascent fintech scene, startups will face less competition than in Sydney for now, and could potentially have a better chance at establishing themselves. That's likely to make the city more attractive to these firms, which will help Melbourne firm up its position as a competitor to Sydney, and make Australia as a whole more fintech-friendly.

#### Notable Fintech Deals In Australia

Millions, Q2 2016 - Q3 2017



BUSINESS INSIDER

#### Notable Australian Fintechs

Prospa. The Sydney-based alt lender for small- to medium-sized businesses (SMBs) was the highest-placed Australian fintech in <a href="KPMG's The Fintech 100">KPMG's The Fintech 100</a>, a list that ranks fintechs by commitment to excellence in terms of customer experience and provision of better services than their competitors. The company <a href="secured">secured</a>
AU\$25 million (\$19.7 million) in a Series B round in February 2017, bringing its total raised to AU\$101 million (\$80.8 million). The round was led by AirTree Ventures and represented the largest Australian VC fintech investment to date. Additionally, Prospa announced that it has lent over AU\$250 million (\$199 million) to SMBs. It has also partnered with Australian bank Westpac and lender Reckon to offer its solution to their customers. Given its track record, Prospa will likely see continued success.

Airwallex. The Melbourne-based cross-border payments startup secured AU\$13 million (\$10.4 million) in a Series A funding round in May 2017, and it intends to use the funds to onboard more businesses to its solution. The capital came from China's biggest internet company, Tencent, as well as Sequoia Capital China and Mastercard. This was the first Australian investment for both Tencent and Sequoia Capital China; their participation indicates China's interest in the Australian fintech market, and the potential some of the country's biggest investors see in it. Additionally, Airwallex secured a \$6 million funding round from Square Peg Capital in <a href="December 2017">December 2017</a>. Such investments will likely help Australian fintechs expand to China in the future, and we could see more deals from big Chinese investors for these startups.

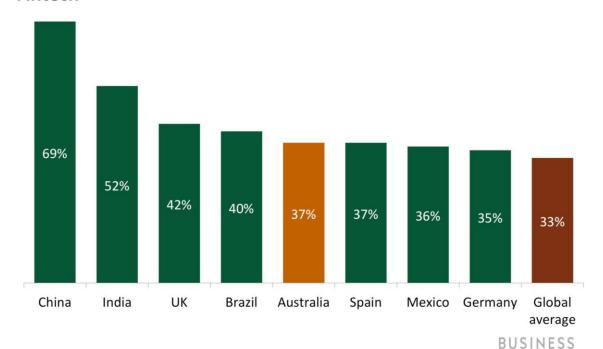
ZipMoney. Australian point-of-sale (POS) financing fintech ZipMoney has secured AU\$40 million (\$32 million) in funding from Westpac, one of Australia's leading banks. Additionally, the bank will invest a further AU\$8 million (\$6 million) based on the fintech's future performance. The deal marks the biggest Australian fintech investment, and third-largest Australian tech deal, in 2017. ZipMoney will use the capital for expansion and the development of new products. Previously, ZipMoney secured AU\$260 million (\$206 million) in a debt financing round led by another leading Australian bank, National Australia Bank. This means ZipMoney is now backed by two leading Australian banks, boosting its chances of success.

#### Opportunities For Australian Fintech

Supportive nongovernmental entities. Outside of government support, a number of organizations are working to promote the fintech industry in Australia. One of the latest is <a href="Australian Fintech Jobs">Australian Fintech Jobs</a>, a website dedicated to helping fintech companies find talent and aiding people seeking jobs in the sector. Australia also has several successful fintech centers, like Stone & Chalk, that provide work spaces for fintechs and guidance when needed. Stone & Chalk claims to have already worked with 13 startups that <a href="Scaled globally">Scaled globally</a>, and fintechs continue to take advantage of its services. Additionally, the center has both local and international <a href="partners">partners</a>, which could help Australia become more attractive to overseas fintechs. By ensuring such centers continue to thrive, perhaps via tax relief, the government could provide the fintech industry with an additional resource without significant outlay on its own part.

High fintech adoption rate. Australia's fintech adoption rate — the percentage of the digitally active population that uses fintech — is at 37%, the fifth highest after China, India, the UK, and Brazil. It's therefore ahead of both Singapore and Hong Kong, its closest competitors in the region. A high fintech adoption rate makes Australia an attractive location for fintechs, as the market they want to serve is already used to new fintech solutions and technologies. This could help bring in more foreign fintechs in the future, reducing the country's reliance on domestic players.

# Percentage Of Digitally Active Consumers Who Use Fintech



Source: EY, n=22,535, 2017

#### Challenges For Australian Fintech

Regional competition. Australia is conceivably looking to establish itself as the primary destination for fintech in APAC outside of China, but it's not the only one; Hong Kong has the same goal, while Singapore arguably already holds the position. Both are serious competitors, and Australia shouldn't underestimate the challenges they pose. That said, the country will likely become a serious hotbed for fintech activity in the future, especially if investment continues to flow into Australian fintechs. In particular, the country's population size of 25 million is a major advantage over Singapore's 6 million and Hong Kong's 7 million. Startups could acquire a larger user base without having to expand outside Australia, making it a more attractive location for fintechs looking to establish headquarters in the region.

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Location. The two biggest English-speaking markets globally are the UK and US, and Australia is far away from both, making expansion into those markets difficult. That could limit the available target market for fintech companies that don't want to deal with the complications associated with working in multiple languages. In turn, those firms may struggle to find investment. However, by inking international fintech agreements — including with the <a href="UK">UK</a> and <a href="Canada">Canada</a> — Australia likely hopes to help its domestic startups overcome this hurdle, making it easier for fintechs to expand to English-speaking markets. While this sounds like a good approach for taking Australia's fintech scene to the next level, the <a href="effectiveness">effectiveness</a> of these agreements has yet to be seen.

#### **Switzerland**

Although Switzerland is quite a small country, its fintech industry isn't one to be overlooked. Two cities in particular — Zurich and Geneva — have been getting media attention due to their potential for fostering fintech industries, and the Institute for Financial Services Zug (IFZ) placed both in the top five of its 2017 IFZ Global FinTech Rankings. Most notably, the country is attracting attention in the cryptocurrency space, with the Swiss Financial Market Supervisory Authority (FINMA) taking an active approach to promoting the development of the sector. And while it seems unlikely that Switzerland will be able to substantially rival other European countries like the UK, Ireland, Germany, and France when it comes to attracting fintech funding, it could succeed in developing a reputation for itself as a cryptocurrency center, with a stable, albeit smaller, broader fintech industry.

	SWITZERLAND BY NUMBERS		
*	Population	8.3 million	
血	Population (15+ yrs) with a financial account	98%	
	Adult population that has used a credit or debit card (2017)	89%	
	Mobile banking penetration	72%	
419	Regulatory bodies relevant to fintech	Swiss Financial Market Supervisory Authority (FINMA)	
W.	Fintech-based agreements with other countries	Israel, Singapore	
ē	Total fintech funding in 2017	\$75.7 million	
Sources Startup	: Business Insider, World Bank, EY, Finextra, Newzoo, Ficker	BUSINESS Insider	

#### Fintech Hubs

Zurich. The city is known as Switzerland's financial center, meaning that fintechs located in the city are close to established financial institutions they can potentially partner with or sell to if they operate a business-to-business (B2B) model. Zurich had the sixth-highest index score — based on the World Bank Doing Business Index, the Global Innovation Index, and the Global Financial Centres Index — in "Deloitte's Tale of 44 Cities," suggesting a good infrastructure for fintechs to establish themselves in. Additionally, Switzerland's highest-ranked university is the ETH Zurich (Swiss Federal Institute of Technology). The university is ranked fifth in the world for engineering and technology, and most of its Masters programs are taught in English. That combination is likely interesting for fintechs, as it could provide them with a large potential talent pool. In addition, Zurich has set up various fintech incubators and accelerators; Swiss Finance Startups (SFW), for instance, helps startups drive innovation by connecting them with potential partners, such as banks. Meanwhile, F10 aims to connect startups with its corporate members, like PwC and SIX, and also provides some funding.

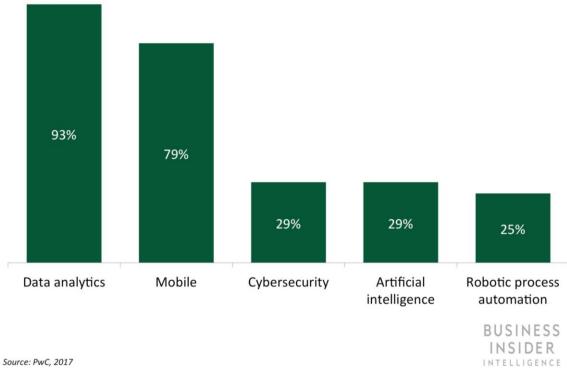
Zug. The city has been <u>nicknamed</u> after <u>Crypto Valley</u>, an independent, government-supported association fostering the development of a domestic cryptocurrency sector. The organization aims to leverage the city's attractiveness to startups, due to its low city-tax rates, in order to facilitate the replication of Silicon Valley. Crypto Valley has formed good relationships with the local government and tax authorities in an effort to attract crypto startups to the city. It also provides support for those looking to set up shop in Zug. Additionally, Bitcoin Suisse, a financial services provider specializing in crypto-assets, is located in Zug, and helped the city's government become the first public entity globally to accept Bitcoin payments for public services. Bitcoin Suisse also helped the <u>Swiss institution Falcon Private Bank</u> set up a <u>cryptocurrency service</u> for its clients. Having Crypto Valley and Bitcoin Suisse to turn to for support is a major and unique benefit for crypto startups, and a key differentiator for Zug.

#### Notable Swiss Fintechs

The Ethereum Foundation. The nonprofit is based in Zug and developed Ethereum, a decentralized platform built on blockchain technology. The platform can be used by developers to build apps and new blockchain-based technologies — projects like Corda from the R3 consortium are built on Ethereum, for instance. Additionally, it has its own token, called Ether, which has become the second-biggest cryptocurrency worldwide, with a market cap of \$79.48 billion and a price of \$801.05, at the time of writing. That is an indicator of the platform's popularity, as developers need to buy Ether before building on Ethereum. Additionally, many companies use Ethereum to develop their own cryptocurrencies in order to launch initial coin offerings (ICOs), which has further contributed to the success of the platform, as interest in this fundraising method continues to boom.

Xapo. Zug-based Bitcoin wallet Xapo was founded in 2012, and has since accumulated \$40 million in funding. Xapo uses a former military bunker in the Swiss Alps to store Bitcoins for its private clients, and users have to pay an annual custody fee of 0.12% of their vault balance. Its investors include Benchmark Capital, Fortress Investment Group LLC, Greylock Partners, and Index Ventures, among others. The company was previously headquartered in the US, but it decided to move to Switzerland in 2015, likely due to concerns about the regulatory environment in the US regarding the cryptocurrency space. Additionally, Xapo was granted an E-money License by the Gibraltar Financial Services Commission last year, allowing it to issue electronic money in multiple fiat currencies. With Switzerland's crypto-friendly regulation approach, it seems likely that Xapo will continue to see high demand for its services.

#### **Biggest Investment Areas In Switzerland In The Next** 12 Months



#### Opportunities For Swiss Fintech

Developing a crypto-friendly ecosystem. As mentioned earlier, Switzerland, and Zug especially, has been paying particular attention to cryptocurrencies. Focusing its efforts on crypto startups means that Switzerland has less competition, as many other countries are still uncertain of the space — China recently issued a blanket ban on ICOs and cryptocurrency exchanges, and South Korea is to follow suit. Moreover, although Switzerland is encouraging cryptocurrencies, it's not letting illegal activity related to them go unnoticed, which likely helps reassure investors. Just recently, a company found issuing "fake" cryptocurrency was shut down, according to FINMA. However, as long as crypto startups issue FINMA-approved cryptocurrency — meaning that it's stored on distributed networks using blockchain technology, not on local servers, for instance — they should have no issues operating in the country.

Regulatory efforts elsewhere. Switzerland recently revised its regulations to be more fintech friendly. One of the <u>revisions</u> states that companies can legally hold public deposits of CHF\$1 million (\$1 million) without applying for a banking license. This shows that Swiss regulators are putting <u>effort</u> into making Switzerland attractive to fintech startups, which will likely help the country establish a stable fintech industry. Additionally, it's allowing fintechs involved with banking to make use of a <u>sandbox</u> — a license exempt area — in which they can develop new technologies for the financial sector. This offering mirrors similar initiatives in other countries like the <u>UK</u> and <u>Singapore</u>.

#### Challenges For Swiss Fintech

Population size. With a population size of just over 8 million, Switzerland is small compared with its neighbors Germany and France. This means that fintechs in the country don't have a large population to address with their new innovations, making scaling more difficult, and likely impacting the country's attractiveness to foreign startups. Additionally, domestic fintechs may have to expand outside of Switzerland, which is an additional challenge to the already difficult process of starting a new company. Hence, to attract more local and international startups to the country, regulators should put more effort into facilitating business movement between Switzerland and other jurisdictions, perhaps by forming more fintech agreements with such countries.

European competition. Switzerland is working alongside countries that are already established in the fintech scene and are attracting more funding and startups overall. As such, focusing on cryptocurrencies is a smart move, and could result in the niche the country needs to achieve widespread recognition in fintech. In taking this approach, it's probable that Switzerland will succeed in creating an environment that's attractive to both domestic and international fintechs working with cryptocurrencies.

#### China

China boasts the highest fintech adoption rate in the world, at 69% as of May 2017, according to EY's Fintech Adoption Index 2017. This suggests that fintechs have truly established themselves within the conventional finance industry, and that consumers are willing to try out the new products, which gives China a great advantage. Hence, even though China is an emerging market, its fintech adoption has surpassed that of the US and UK, which are often seen as the world's major fintech players. Moreover, China's parliament has announced a broad restructuring of its regulatory agencies, including its financial regulators, to make regulation more centralized. This could help boost future fintech adoption in the country, making China an even bigger fintech player.

CHINA BY NUMBERS				
*	Population in 2017	1.4 billion		
血	Population (15+ yrs) with a financial account	79%		
	Adult population that has used a credit card	13.8%		
	Mobile phone penetration	97%		
410	Regulatory bodies relevant to fintech	China's Securities Regulatory Commission (CSRC), People's Bank of China, China Banking Regulatory Commission (CBRC), China Insurance Regulatory Commission (CIRC)		
4	Fintech-based agreements with other countries	Australia, the UK, Hong Kong		
ē	Total fintech funding in 2017	\$1.6 billion		
	Business Insider, Worldometers, Innovate Finance, V nextra, Wharton	Vorld BUSINES		

#### Fintech Hubs

Beijing. Beijing is China's capital city, and, with 22.8 million people living there, it's also the country's second-largest city by population. Almost half (21) of China's 50 leading fintechs are based in Beijing, according to KPMG, making it the largest fintech hub in the country. The FinTech World Forum will be held in Beijing later this year, and aims to bring the fintech ecosystem together, help fintechs build relationships, share knowledge, and create business opportunities. Nearly 60 universities are based in the city, including many that focus on technology, amounting to a healthy pipeline of qualified graduates for fintechs searching for tech talent. These factors are likely to convince more fintech companies to set up their base in Beijing in the future.

Shanghai. Shanghai is China's largest city, as it boasts a population of 25.8 billion. Additionally, it has the most powerful financial center in the country, and the sixth-most powerful in the world, according to Z/Yen's Global Financial Centres Index (GFCI). This gives fintechs a large addressable market, as well as a stable financial environment, which can help them establish themselves. Fourteen of China's 50 leading fintechs in 2017 were based in Shanghai, according to KPMG, making it the second-largest fintech hub after Beijing. Additionally, Shanghai will hold a fintech conference in October 2018 that will focus on ICOs and new financing models, which has been organized by the Shanghai Institute of International Finance Centre and the University of Edinburgh Business School. Shanghai is home to over 30 universities, including the Shanghai Institute of Technology and Shanghai Tech University, which both offer programs related to fintechs, suggesting there is a large talent pool for the sector. Given all these factors that speak in favor of Shanghai as a fintech hub, with time, we'll perhaps see the city catching up to Beijing.

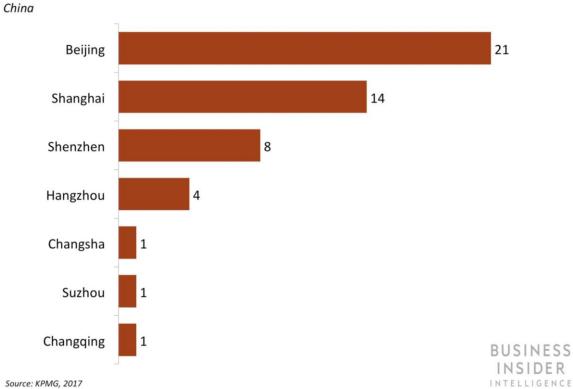
#### Notable Chinese Fintechs

Lufax. Shanghai-based online marketplace lender Lufax is China's second-largest marketplace lender, and had originated some 200,000 loans worth over \$2.5 billion between its 2011 launch and July 2017. It secured a Series B funding round worth \$1.2 billion from COFCO in 2016, bringing its total funding to \$1.7 billion. The marketplace lender is expected to launch its initial public offering (IPO) this year, with a valuation of \$60 billion, and is in talks with four major banks — Citigroup, JPMorgan, Morgan Stanley, and CITIC Securities — in regard to those plans. Its biggest competition in the country is marketplace lender Diangrong; however, given China's large population size, it seems probable that the addressable market is large enough for both companies to flourish.

ZhongAn. Shanghai-based fintech ZhongAn is the biggest online-only insurer in China. The insurtech was collaboratively formed by Ping An, Tencent, and Alibaba in 2013 and has raised 5.8 billion yuan (\$920 million) in funding. ZhongAn listed on Hong Kong's stock exchange (HKEX) at \$1.5 billion in September 2017, marking the biggest IPO on HKEX to date. The insurtech now plans to expand its product suite with services like life insurance. Its biggest competitor is currently PingAn, but China's insurtech market is so big that it's impossible for just one company to gain a dominating share, according to Chen Wei, chief executive of ZhongAn Technology. Additionally, China's insurtech market is expected to hit 1.4 trillion yuan (\$220 billion) in value by 2021, suggesting there will be high demand for ZhongAn's services in the future.

Ant Financial. Hangzhou-based fintech Ant Financial is an online payment services provider. It's <u>currently talking to investors</u> about raising a new funding round worth \$9 billion, with Temasek Holdings likely to serve as the lead investor, according to people familiar with the matter. This would bring its total <u>funding to date to \$13.5</u> <u>billion</u> and could bring its valuation up to \$150 billion. The fintech is expected to publicly list in the future, and, although the potential IPO doesn't have a date as of yet, this future round and boost to the company's valuation could make its IPO one of the biggest we've seen in fintech so far.

### Number Of Leading Fintechs, Per City

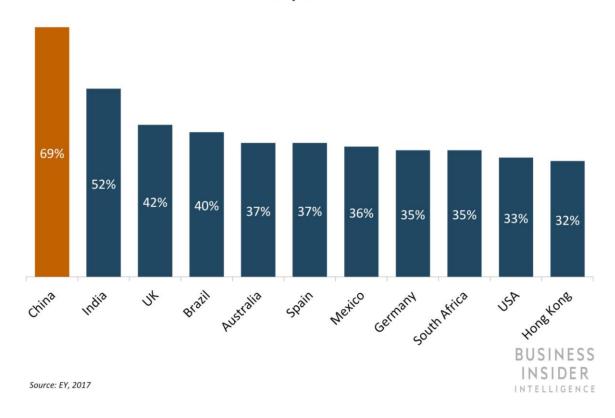


#### China's Fintech Opportunities

Population size. China has one major advantage over other big fintech players in the region, like <u>Hong Kong</u> and <u>Singapore</u>: its population size. The country has over 1 billion people who could potentially use fintech solutions, while Hong Kong and Singapore are relatively small, meaning they can't offer fintechs a large addressable market. Additionally, having such a high fintech adoption rate means that startups in China are successfully grasping a large chunk of the population. This may be the reason why China has seen so many megarounds in the past, such as financial management portal OneConnect completing a \$650 million <u>funding round</u> in March; funding rounds of that size are basically unheard of in Europe and the US.

Proximity to other fintech centers in the region. China is close to both Singapore and Hong Kong, meaning startups can use those two territories as gateways into China's market. Singapore has a more Western attitude, as it uses <a href="English">English</a> during business dealings, for example, which may make it easier for foreign startups to set up their businesses. Once they're established there and have more knowledge of the Asian market, they might see China as the obvious next country for expansion plans. So, while China likely has to compete with those other centers, it can also largely benefit from their proximity.

#### **Global Consumers' Fintech Adoption**



#### China's Biggest Fintech Challenge

China's attitude toward crypto. China was one of the first players to completely ban cryptocurrencies, with both ICOs and crypto exchanges made illegal last year. This will likely cause crypto startups to avoid the country in the future, further blocking the Chinese population's access to an entire fintech segment. As cryptocurrencies become increasingly popular, China will need to put even more of its efforts into other fintech segments if it wants to remain such a big fintech player.

# **EMERGING MARKETS**

There are a number of emerging fintech markets, including Brazil, Israel, and Canada, that are likely to play a big part in the global fintech ecosystem in the future. In this section, we take a closer look at these players, examining their strengths and the challenges they might face along the way to establishing themselves.

#### **Brazil**

Although Latin America's fintech scene isn't getting much attention, one player in particular — Brazil — is off to a strong start. Over 200 fintechs are currently operating in the country, and they're expected to bring in an estimated \$24 billion in revenue over the next 10 years, according to Goldman Sachs. Ninety percent of fintechs only operate domestically — but with a population of over 200 million, Brazil already has a large addressable market. Additionally, 40% of Brazilians are unbanked, offering consumer-facing, or B2C, fintechs a substantial opportunity. For these reasons, we expect most fintechs to choose this model and focus on the domestic market first, only expanding as saturation approaches.

	BRAZIL BY NUMBERS		
*	Population in 2017	207 million	
血	Population (15+ yrs) with a financial account	70%	
	Adult population that has used a credit or debit card (2017)	39%	
	Mobile banking penetration (2015)	45%	
410	Regulatory bodies relevant to fintech	Central Bank of Brazil	
	Fintech-based agreements with other countries	N/A	
ē	Total VC-backed fintech funding in 2016 (Note: Latest year for which data is available)	\$113 million	
Sources: World Bank, eMarketer, CIA, Financial Times, Forbes		BUSINESS INSIDER	

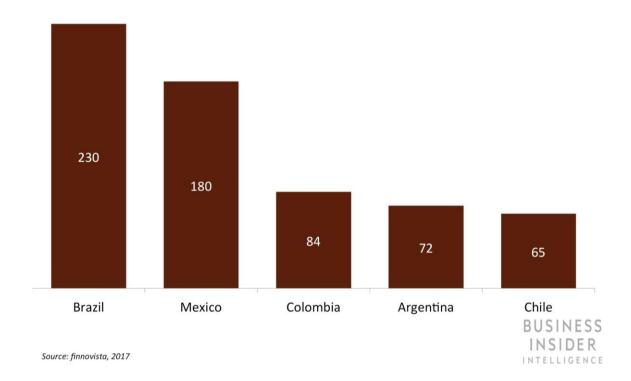
#### Fintech Hubs

Sao Paulo. Sao Paulo has a population of around 12 million, making it the largest city in the country. Half of its residents are under 20, giving B2C fintechs an almost unrivaled potential market size, as early adopters are often younger. Sao Paulo is also the financial center of Brazil and all of Latin America, which gives fintechs a significant opportunity to partner with, or sell to, leading banks when operating a B2B model. Furthermore, the city and its environs are home to the two best universities in Latin America, the University of Campinas and the University of Sao Paulo. Both offer technology-focused courses, giving fintechs an accessible talent pool. Over 80 fintechs are already taking advantage of these opportunities and are currently located in Sao Paulo, making it the largest fintech hub in Brazil. In addition, the city has a fintech incubator, Cubo, and accelerators, including InnovaBra and Wayra, that are likely to help that number grow. With these good fundamentals for a thriving fintech ecosystem, we can expect many more domestic solutions to launch from Sao Paulo in the near future.

Rio de Janeiro. With a population of 6.3 million, Rio de Janeiro is the second-largest city in Brazil. The city has the second-highest number of fintechs — about 10% of the total. New startups are being encouraged in the city by Plataforma. Space — it aims to connect startups and traditional companies to offer startups services including technical training, credit, and market access so they can grow. Last year, Plataforma. Space launched FINTECH. Rio 2.0, a five-week boot camp that prepares startups — including those specialized in fintech solutions — to offer their innovations to partner companies that Plataforma. Space has relations with. With efforts like this, we expect Rio de Janeiro to further continue building up its fintech industry in the future.

#### **Number Of Fintechs In Latin America**

Selected countries

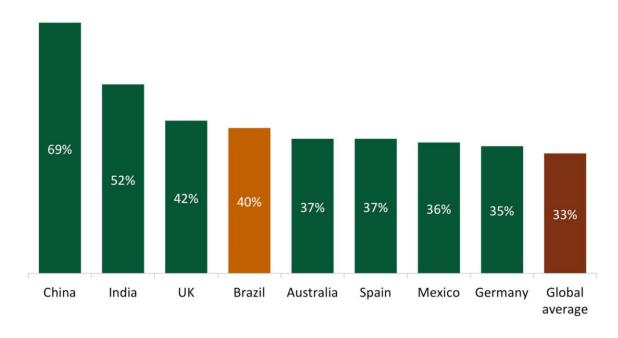


#### Notable Brazilian Fintechs

Nubank. This Sao Paulo-based neobank made waves in <a href="December 2016">December 2016</a> when it became the first Latin American fintech to secure a megaround with a \$80 million Series D raise. Since then, it received another \$150 million in a new funding round led by DST Global Investment Partners in <a href="March 2018">March 2018</a>. It has begun beta-testing its checking account offering, <a href="NuConta">NuConta</a>, after already offering no-fee digital credit card services to customers for three years. The company claims the application process, which is entirely in-app and paper-free, takes just 3 minutes for new customers, and a matter of seconds for existing Nubank credit card users. Via the service, users can save money and choose to invest in federal securities, while monitoring their investments in-app. The neobank is targeting Brazil's large unbanked market, as well as those not served appropriately by their current banks, due to high fees, for instance. Moreover, it's also hoping to target those consumers put off by the incredibly high interest rates charged by incumbents. Further in its favor, the neobank market in Brazil is still nascent, meaning that Nubank isn't facing much competition yet, increasing its chances of success.

Creditas. Sao Paulo-based alt lender Creditas — formerly known as BankFácil — was founded in 2012 and has since been providing consumer loans secured using property, such as a car or a house, as collateral. Creditas secured a \$55 million Series C funding round in early 2018, which was led by Vostok Emerging Finance (VEF) and included Santander InnoVentures and Quona Capital, among others, bringing its total funding to \$83 million. Its funding has allowed the alt lender to decrease the minimum interest rate on secured loans from 2.15% to 1.99% — about 5% less than the average consumer lending rate in Brazil. With help from its recent funding round and its low interest rates for customers, it seems likely that Creditas will be able to attract more users in the future and successfully compete against conventional lenders in the country.

#### **Global Consumers' Fintech Adoption**



BUSINESS INSIDER

Source: EY, 2017

#### Brazil's Fintech Opportunities

Population size. Having an extremely large population, as Brazil does, is a great benefit for the nascent industry. Fintechs establishing themselves in the country immediately have a large addressable market, which makes scaling their services easier, especially for those operating on a B2C basis. In Brazil, that opportunity is increased by the fact that 40% of the population is underserved by traditional financial services, meaning that around 80 million people — which is the population size of all of Germany, for comparison — are in need of new financial solutions to be fully included in the economy. Thus, Brazilian fintechs have a number of factors already in their favor that should help the industry grow faster over the next few years.

Fintech-friendly regulation. The Central Bank of Brazil wants to introduce new rules to further develop the country's fintech ecosystem. The new framework, proposed in August 2017, would allow fintechs to lend money without taking deposits as commercial banks do. In addition, the regulator wants to make it easier for foreign banks to set up in Brazil. At the moment, even though the central bank is in charge of approving licenses for foreign banks, there is still a presidential decree needed for the application to fully be authorized. This is a lengthy and complicated process, due to the president's plethora of obligations. The new rules would scrap the presidential requirement, which would allow foreign banks to get licensed quicker and would consequently help diversify the financial sector. These two rule changes could help the fintech market in Brazil flourish even more in the future.

#### Brazil's Major Fintech Challenge

Lack of financial education. One of fintech's major challenges in Brazil is the country's lack of financial education. Due to big banks having such large market penetration (70%), other options are often less visible. In many other countries, the population is used to having a large variety of financial services to choose from — but when this is not the case, people's awareness of the few alternatives that do exist often remains low. This means that next to rolling out services, fintechs also have to put some of their focus into educating the population on the newly evolving options and raising <a href="maintenancesector">awareness</a> of them. Additionally, it will be difficult to become an established player in the finance sector while facing strong competition from the four main banks. However, Nubank is setting a great counterexample for startups by showing that it is possible to gain a large customer base (2.5 million) in Brazil's market.

#### Israel

Israel has long been recognized as the world's <u>startup nation</u>, boasting the <u>strongest startup ecosystem</u> after Silicon Valley and Stockholm, according to <u>SparkLabs</u>, which bases its decision on factors including engineering talent, legal infrastructure, and funding ecosystem. Many startups have found a home in Israel, and the fintech scene especially has been gaining traction in recent years. Currently, there are <u>over 430 fintech</u> startups located in the country, a number that grew almost 80% from only 90 in 2009. Fintech startups can take advantage of the country's tech experience, which it has developed over the years with its army's intelligence training. Its tech experience has also led to many foreign players, <u>like banks</u>, coming to Israel to look for talent or new solutions. While Israel isn't likely to compete with other big players, such as the US, UK, or China, it may have found its own niche by providing foreign and domestic fintech startups with vital <u>tech talent</u>.

ISRAEL BY NUMBERS		
*	Population in 2017	8.4 million
血	Population (15+ yrs) with a financial account	93%
	Adult population that has used a credit or debit card (2017)	80%
	Smartphone penetration	57%
414	Regulatory bodies relevant to fintech	Israeli Ministry of Finance, Ministry of Treasury, Office of the Chief Scientist
Car.	Fintech-based agreements with other countries	Switzerland
ē	Total fintech funding in 2016 (Note: Latest year for which data is available)	\$426 million
Sources Wavesto	: Business Insider Intelligence, Worldometers, World B	ank, BUSINESS INSIDER

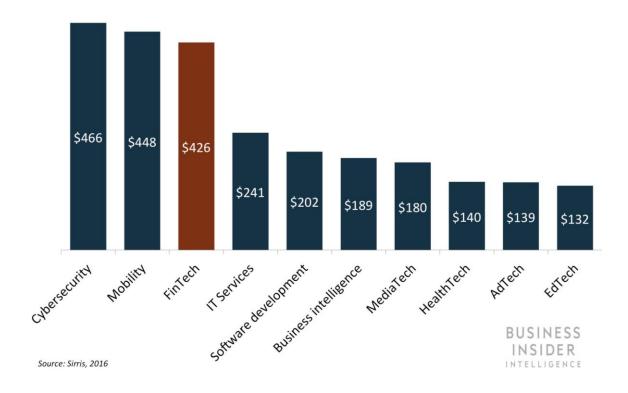
#### Fintech Hubs

Tel Aviv. With a population of just over 430,000, Tel Aviv is the second-largest city in Israel. And most of the country's fintechs are located in Tel Aviv, making it Israel's biggest hub. One of Tel Aviv's biggest perks is its global fintech innovation center, dubbed The Floor, which aims to provide fintechs with guidance and contacts to influential players in the fintech industry. Its partners include HSBC, Accenture, and Deutsche Bank. Moreover, Citi launched its fintech accelerator program in Tel Aviv in 2013. The accelerator has since supported six batches of fintechs during the fourmonth-long program, and a total of 55 startups have graduated so far. To further promote fintech, a variety of events were held throughout 2017 in Tel Aviv, including Mobile & FinTech Innovation and Fintech Week Tel Aviv, which both looked to promote fintech in Israel and give startups the chance to meet investors, connect with each other, and learn about new developments. Lastly, the city's highestranked university is Tel Aviv University, offering courses relevant for fintechs, including engineering, computer sciences, and management — some of which are even taught in English, which is especially beneficial for foreign fintechs searching for talent.

Jerusalem. Jerusalem has the <u>largest population</u> of any city in the country, with 862,000 citizens. However, it's only Israel's second-largest fintech hub. That's likely because, compared with Tel Aviv, Jerusalem struggles with more political conflict, which likely scares off fintechs. That said, the city is home to Israel's <u>highest-ranked university</u>, the Hebrew University of Jerusalem, which offers <u>courses</u> ranging from finance to computer sciences, providing fintechs with a talent pool relevant to their companies. Additionally, the city has a startup and tech community, called <u>Made in JLM</u>, that helps startups find office spaces, promotes jobs at startups, and keeps visitors informed about events, such as developer workshops in Jerusalem.

#### **Funding Raised Per Industry In Israel**

Millions



#### Notable Israeli Fintechs

VATBox. The <u>software provider</u> for the value-added tax (<u>VAT</u>) recovery process is based in Tel Aviv and serves customers in over 40 countries. VATBox claims to make VAT recovery — the process of reclaiming the VAT that was paid for goods and services purchased for use in business — more accurate and time-efficient by using technology to process VAT data. VATBox was included in KPMG's fintech 100, a list of globally leading fintechs, as one of the top 50 emerging fintechs in 2017. Additionally, the fintech secured a <u>\$20 million funding round</u> led by Target Global Fund in March 2017. The funding round also included existing investor Viola Private Equity, as well as other private investors. Offering its solutions to clients in many geographies gives VATBox a large and diverse customer base, which likely increases its chance of future success.

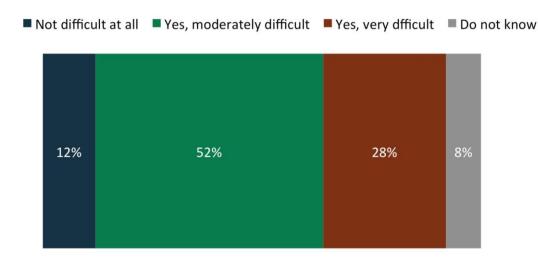
BondIT. Israel- and Hong Kong-based BondIT uses machine learning analytics to develop automation tools that help portfolio managers and advisors build fixed-income portfolios quicker than when doing so manually. The fintech secured a \$14.25 million funding round from Chinese investment company Fosun International in October 2017. Fosun representatives have also joined its board of directors. This was Fosun's first investment in an Israeli company, and receiving funding from such a large Chinese company shows that there's international interest in Israel from major foreign players. Additionally, using a B2B model allows fintechs to disrupt the financial market by helping other players improve their businesses and products, rather than competing with them. Having less competition makes BondIT's products more prone to success, which should help the company further grow its customer base in the future.

#### Israel's Fintech Strengths

Immigration. Israel's fintech industry benefits from the country's high immigration rates; over a quarter of citizens in Israel have an immigration background from North America, Europe, Asia, or Africa. Immigration leads to a diversified culture full of people who are known to be keen on starting businesses. For instance, over half of the startups worth over \$1 billion in the US were founded by immigrants, a study in 2016 showed. Israel's strong population of immigrants affords the country a demographic that's willing to take risks to pursue entrepreneurial endeavors, likely also in the area of fintech.

Military services. Israel has long been seen as a center for technology talent. This is because the Israeli <u>army's intelligence training</u> produces tech-savvy people who use their skills to found tech companies in the country, giving it a large talent pool and multiple leading startups. This talent pool is also attractive to <u>foreign</u> <u>companies</u>, causing them to move their offices to Israel. Israel's talent resources have been in high demand lately, as tech talent is scarce and financial institutions worldwide are struggling to find suitable employees.

#### **Difficulty Hiring And Retaining Skilled People**



Souece: PwC, n= 1,262 financial services and fintech executives, 2017



#### Israel's Fintech Challenges

Unstable political situation. Israel has its fair share of political instabilities, with considerable unrest throughout the country. These circumstances could make Israel seem like a risky country to launch a fintech startup in, because when there's a lot of political unrest, financial disruption might not be a key interest among citizens. This may make it harder for fintechs to set up their businesses and amass customers, which could scare some of them off. However, Israel's advantages seem to be outweighing the unstable political situation for the time being, as the number of fintech companies in the country has steadily increased since 2009.

Small population size. With 8.4 million citizens, Israel doesn't offer fintechs a large population to address with their solutions. This could be an issue for those starting up in the country, as it limits their opportunities to scale their products and services, and therefore makes it harder to onboard customers and make enough revenue to be successful. This potentially leads to businesses seeking out other countries to launch their products in. For instance, although insurtechs Lemonade and Payoneer both have Israeli founders, they chose to launch their startups in the US, likely due to better chances of success.

#### Canada

Canada's fintech industry has made considerable strides in recent years. Although fintech adoption in the country is still behind the global average of 33%, it rose from 8% in 2015 to 18% in 2017. The country has also started to launch several initiatives to help develop artificial intelligence (AI) solutions and to explore use cases for the technology within Canada. Canadian Institute for Advanced Research (CIFAR) leads the Government of Canada's \$125 million Pan-Canadian Artificial Intelligence Strategy, which works with three AI institutes — the Alberta Machine Intelligence Institute (AMII) in Edmonton, the Vector Institute in Toronto, and MILA in Montreal — and likely aims to make Canada a leader in AI. It seems that Canada is still a couple years behind many other established fintech players — including its neighbor, the US. However, due to the country's focus on AI, we'll likely see much more of Canada's fintech industry over time.

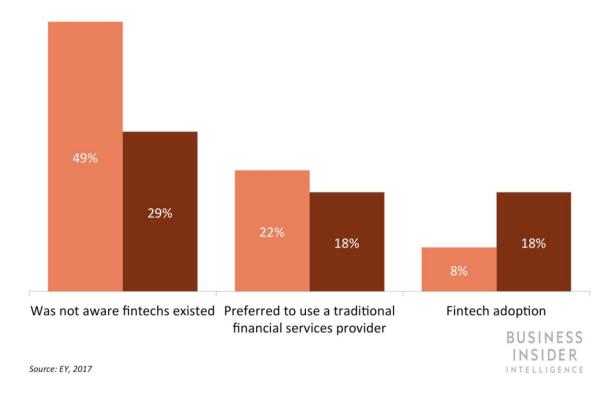
	CANADA BY NUMBERS		
*	Population in 2017	37 million	
血	Population (15+ yrs) with a financial account	99.7%	
	Adult population that has used a credit or debit card (2017)	95%	
	Mobile banking penetration	78%	
<b>41</b>	Regulatory bodies relevant to fintech	Ontario Securities Commission (OSC), Office of the Superintendent of Financial Institutions (OSFI), Canadian Securities Administrators (CSA)	
Car.	Fintech-based agreements with other countries	Australia, France, the UK	
ē	Total fintech funding in 2017	\$456 million	
	: Worldometers, Montreal in Technology, World Bank, er, Deloitte, CBA, PwC	BUSINESS INSIDER INTELLIGENCE	

#### Fintech Hubs

Toronto. With a population of 2.7 million, Toronto is the <u>largest city</u> in Canada, affording fintechs a large addressable market. Toronto's innovation center MaRS is part of the Global Fintech Hub Federation (GFHG), and serves as a fintech-focused association that directly supports fintech developments in the city. One way it does this is by providing funding for fintechs. The city has the seventh-most stable financial center in the world, and comes second in the Americas right after New York City, according to a study by <u>Z/Yen</u>, which takes factors like the business-friendliness of the regulatory environment into consideration. A stable financial center is highly attractive for fintechs, as it gives them a secure ecosystem to launch their solutions into. Moreover, the University of Toronto is the <u>highest-ranked</u> university in Canada, and has an institute of technology and a school of management, which both produce graduates in fields that are relevant to fintechs, and therefore give them a potential talent pool for their companies.

Montreal. Montreal is the second-most populated city in Canada, boasting 1.7 million citizens. Although it's home to fintechs in a number of segments, the city is building a reputation as a center for AI development. That's been led by two banks' interest in AI, in particular: The Royal Bank of Canada (RBC), which opened an AI lab in Montreal, and the Bank of Montreal (BMO), which will both join the RBC's lab and invest \$2 million in a different AI program that's led by the Creative Destruction Lab Montreal (CDL-Montreal). Having a particular focus on AI in the city can potentially make it a known center for this technology, differentiating it from the US, which is known for fintech in a broader sense. Additionally, big banks in the city realizing the importance of fintech is good for startups, as they can potentially partner with or sell their products to the big players. Out of all graduates in Montreal, <u>24% receive degrees</u> in Science, Technology, Engineering, or Mathematics (STEM). This percentage is higher than in both the US and the UK, and makes Canada an attractive location for fintechs that are in need of talent in those areas. Additionally, Montreal is largely French-speaking, potentially making it more attractive to foreign francophone fintechs looking to expand.

# Canadian Consumers' Fintech Awareness, Preference, And Adoption

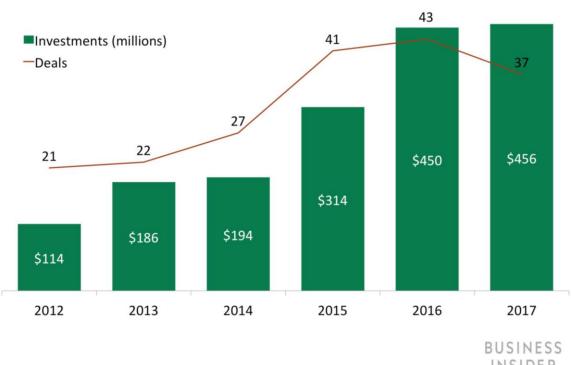


#### Notable Canadian Fintechs

Wealthsimple. The Toronto-based digital wealth manager launched in 2014, and has \$800 million in assets under management (AUM). Wealthsimple last secured a \$65 million investment from the Power Financial group of companies in February 2018. Recently, the company has expanded its business to the UK, adding to its existing operations in the US and Canada. Wealthsimple operates a hybrid model, offering both automated investment portfolios and on-demand access to live advisors. Furthermore, next to the standard portfolio plan, users can choose a socially responsible version, which was launched earlier this year. Its current AUM makes it one of the bigger digital wealth managers operating in Europe, but it's still trailing behind its US-based counterparts, such as Wealthfront, which has \$9.5 billion in AUM. In the future, Wealthsimple would be wise to keep its focus on the Canadian and European market, where the digital wealth management market isn't as crowded, yet.

Lendified. Toronto-based Lendified is an alt lender that specializes in serving the SMB market. In October 2017, the alt lender secured \$60 million funding in debt financing from ClearFlow — a company providing working capital solutions via a cloud-based platform — which brings its total raised to date to \$80 million. The funding is being used to increase the company's lending capacity and to offer loans to more SMBs in Canada. At the time of its last funding round, Lendified received over \$220 million in loan requests. Although this may not be an impressive amount compared with its US counterparts like Kabbage, which has originated over \$4 billion in loans, it seems like a healthy demand for Lendified's services, given Canada's smaller population size and more nascent fintech industry.

#### **Total Fintech Funding In Canada**



Source: PwC and CB Insights, 2017

#### Canada's Fintech Opportunities

Proximity to the US. Canada being so close to the US could potentially make it a gateway into the US market for both domestic and foreign fintechs. Especially because both countries are mainly English-speaking, one market can serve as a stepping stone into the other. Additionally, since the fintech industry in Canada isn't as mature as the one in the US, it may be easier for fintechs to set up operations in Canada, due to less competition. Then, once a business has gained traction, it will have the whole of the US for expansion opportunities. To operate in the US, a Canadian company must make an investment in a US business; the level of investment determines whether the Canadian company's employees receive green cards or work visas.

Regulatory support. Regulators in Canada are increasingly putting more effort into fintech in the country to help the industry flourish. The Ontario Securities Commission (OSC) introduced LaunchPad in 2016, which provides advice and other support to fintechs for matters including regulatory compliance and investor protection. Additionally, the OSC has formed a Fintech Advisory Committee, which advises the regulator on fintech developments and how it can reform regulations in the future. Both of these initiatives help fintechs launch their businesses in the country, and reassure investors that fintechs are being regulated appropriately and that they're receiving the guidance and support they need.

#### Canada's Biggest Fintech Challenge

Proximity to the US. While being close to the US has its perks, it can also be a potential challenge for fintechs in Canada. The US' fintech industry has been thriving for years, resulting in a plethora of successful fintechs in the country. And these organizations present some serious competition to Canadian fintechs: Wealthsimple <a href="moved into">moved into</a> the US in January 2017 after operating only in Canada, and has yet to catch up with its US competition, for instance. Hence, being close to such a big fintech player has both its benefits and disadvantages for the Canadian fintech industry.

# THE FUTURE OF FINTECH

With so many players around the world continuing to develop their fintech ecosystems, as well as new players entering the field, it's clear that fintech is becoming increasingly global, and that investor interest and new innovations are likely to go from strength to strength.

Many more fintech hubs will likely morph into big fintech players. Although many of the hubs discussed in this report are relatively nascent in their development, they're advancing quickly. With time, we'll probably see these, as well as fintech hubs in different countries, become major hotbeds for innovation. And, as this network grows more global, fintechs will give people who are conventionally underserved the opportunity to manage their finances. Additionally, some players, like Canada and Switzerland, will probably choose to focus on a particular aspect of fintech, rather than try to compete on a broader scale.

With this in mind, we'll likely see more investment pouring into maturing and emerging markets. Investors are increasingly waking up to the opportunities in new markets, which suggests that fintech funding is likely to become more diversified in the future. That means we can expect funding levels outside of well-established fintech centers like the US and UK to meaningfully increase in the years ahead.

# THE BOTTOM LINE

- The global spread of fintech can be seen in the ongoing emergence of fintech hubs — cities where startups, talent, and funding congregate which are proliferating in tandem with disruption in financial services.
- Besides the US and UK, there are plenty of other countries developing strong fintech hubs. These include Australia, Switzerland, and China, which have managed to leverage their stable financial centers of Sydney, Zurich, and Shanghai, respectively, to spur fintech development.
- There are also a number of emerging fintech markets that are coming to the fore. These include Brazil, Israel, and Canada, which boast nascent but rapidly developing fintech hubs.
- Many more fintech hubs will likely morph into big fintech players in the future.
   This could cause fintech funding to become more diversified, particularly outside of the UK and US, as investors identify new markets and opportunities.

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