SCALING THE FINTECH OPPORTUNITY:
FOR SYDNEY & AUSTRALIA

The Committee for Sydney

ISSUES PAPER 17 | JULY 2017

KPMG

FINANCIAL SERVICES KNOWLEDGE HUB

MINISTER'S FOREWORD

The New South Wales (NSW) financial services sector is experiencing rapid growth and is cementing its position as a leading financial services hub for the Asia-Pacific region. It is fostering new businesses, driving digital innovation, and creating skilled jobs in an emerging global industry.

Three years on from the release of the Financial Services Knowledge Hub's first industry report, *Unlocking the Potential: the Fintech Opportunity for Sydney*, it's clear that NSW is making real progress in creating a thriving and strong fintech environment.

Sydney is now home to 59% of the nation's fintech companies, it is the focus for venture-capital investment, and it boasts two locations purpose-built for supporting fintech start-ups. This includes the largest fintech incubator in Asia, Stone and Chalk.

I'm particularly proud that the success of the sector is also helping to support start-up development across regional NSW, by providing a platform for fintech entrepreneurs, regardless of where they are located, to access the right support structures and markets. This is helping to spread the benefits of the digital economy right across the state. However, there is more that needs to be done.

The *Scaling the Fintech Opportunity: for Sydney and Australia* report showcases the NSW fintech sector's achievements and also provides key recommendations for government and the private sector to ensure we continue to grow the sector in both regional and metropolitan NSW. This industry-led, industry-driven research will help to inform the sector's next steps in strengthening its competitive advantage and growing the nation's innovation pipeline.

The NSW Government is proud of the ongoing collaboration between the NSW Government's Financial Services Knowledge Hub, the Committee for Sydney and industry. Partnerships such as these are vital if we are to continue to build on the sector's growth and competitive advantage.

On behalf of the NSW Government I would like to congratulate and extend my thanks to the Committee for Sydney for their efforts in producing such an important report for the fintech sector in Sydney and Australia.

THE HON NIALL BLAIR
MINISTER FOR PRIMARY INDUSTRIES, MINISTER FOR REGIONAL WATER, AND MINISTER FOR TRADE AND INDUSTRY

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SCOPE OF THE RESEARCH PROJECT

This follow-up report to 'Unlocking the Potential: The Fintech opportunity for Sydney' published October 2014 was developed by KPMG for the Committee for Sydney. The purpose of the report is to determine whether digital and Fintech innovations have been successfully adopted in the Australian financial services industry, to identify any impediments to further industry progress and provide recommendations for both the public and private sectors to improve Australia's standing in a global and regional context.

BACKGROUND AND PURPOSE OF THE RESEARCH

- This research has been commissioned by the Committee for Sydney in its role as coordinator of the Financial Services Knowledge Hub. The Knowledge Hub aims to establish Sydney as a key global financial services ecosystem by improving the attractiveness of the NSW business environment, encouraging innovation in the NSW financial services sector and increasing the competitiveness of industry based projects.
- The purpose of this research is to acknowledge any improvements that have been made or initiatives that have been implemented, since the release of the 2014 report and to identify any areas that need to be addressed to enable Sydney to become a strong and prosperous Fintech ecosystem

THE FINTECH ECO-SYSTEM IN AUSTRALIA

This follow-up report seeks to:

- Illustrate the positive shift for Sydney's financial services and Fintech sector since 2014
- Articulate Sydney's areas of strength and opportunity in financial services
- Identify opportunities for both government and industry-led initiatives to maintain and improve momentum

APPROACH UNDERTAKEN

- KPMG Global Services desktop research on current publications and reports into the financial services industry and Fintech sector in Australia and globally
- External meetings and interviews with key local stakeholders (Government, industry, regulators, Fintech start-up community, investors)

Supported by

The Committee for Sydney

NSW GOVERNMENT | Department of Industry

EXECUTIVE SUMMARY

Launched in 2014, the Committee for Sydney (KPMG) report "Unlocking the Potential: the Fintech opportunity for Sydney" identified five key enabling conditions required to drive the growth and development of the Fintech sector in Sydney and Australia, namely:

- Available and accessible early stage funding for Fintech start-ups and a strong pipeline of opportunities for investors/VC funds;
- Depth of financial services and technology talent, with close proximity of these talent pools to each other (in city locations);
- A robust financial services industry, with a vibrant technology start-up community with mentoring, networking and high visibility;
- Government and regulatory support for the Fintech sector specifically, and technology start-ups generally; and
- Business backing for a Fintech hub, with high levels of collaboration and a strong culture of knowledge-sharing and entrepreneurship.

From these we made a series of recommendations for both the private and public sector to build momentum:

- State Government to continue working with partners in the private sector and the Committee for Sydney on the development of a comprehensive Fintech vision and strategy for Sydney;
- Explore the establishment of a not-for-profit Fintech hub in the heart of the city that co-locates venture capital, technology start-ups and established financial services firms;
- Establish a series of events in the city, regionally and globally to promote Sydney as a leading Fintech hub in the ASPAC region, in line with our leading financial services position;
- Form an independent Fintech focussed industry association, based in Sydney, to give the sector a public voice and champion;
- Review current regulatory, tax and business incentives available to the start-up community and target foreign repeat entrepreneurs and attract them to Sydney; and
- Engage the university sector to research key Fintech themes.

With the successful implementation of a number of these recommendations significant growth has been experienced in the Fintech sector not just in Sydney but across Australia as a whole:

- Key to this growth has been the establishment of the not-for-profit Fintech hub Stone & Chalk which opened its doors in 2015 and is supported by government and financial services institutions alike. We have also seen the establishment of the privately run Tyro Fintech Hub;
- A Fintech industry association Fintech Australia was also established in 2015 providing a voice and advocacy platform for the sector across Australia;
- Regulatory and incentive changes have also been made to further enhance the attractiveness of the sector for entrepreneurs and investors alike; and
- Outside of this opportunity still exists for greater clarity in terms of the development of a comprehensive vision and strategy for Fintech within a broader financial services

strategy. More effort is also required to enhance university engagement to further develop business development and commercialisation opportunities for research in financial services.

As a consequence the Fintech eco-system has continued to grow and build on its early promise:

- The number of Fintech start-ups in Australia has increased from less than 100 in 2014 to 579 companies today with 59% of all Fintech companies basing themselves in Sydney; and
- Australian Fintech investment has remained strong with $US675 million invested across 25 deals in 2016 and Sydney has been the major recipient of Fintech related VC investment at $US171 million between 2014 and 2016.

Equally important to the development of the sector has been the ongoing investment in innovation by our largest financial institutions:

- Many of our largest financial institutions are key supporters of Stone & Chalk (Westpac, NAB and ANZ);
- CBA, NAB and Westpac have all invested in Fintech businesses either through VC or acquisition;
- All the major banks are trialling blockchain technology either individually or as part of consortiums; and
- Outside of banking major insurers, such as, IAG, Suncorp, AMP and TAL have either partnered with or invested in Fintech and built out their own innovation capabilities.

However we cannot rest on our laurels as major financial centres worldwide have been actively developing the strength of their own Fintech eco-systems:

- In May 2016, London was ranked as the largest Fintech hub in the world employing 61,000 people and generating £6.6 billion in revenue. Government support for the sector remains strong in the post-Brexit era;
- In 2016, 35 New York Fintech companies raised $US459m. The average early stage funding per start-up in New York was valued at $US568,000, while the global average was at $US252,000;
- The Monetary Authority of Singapore (MAS) and the National Research Foundation announced the establishment of a Fintech office in order to facilitate the development of Singapore as a Fintech hub. MAS allocated a budget of $SG225 million to aid in the development of the Fintech ecosystem from 2016 to 2021; and
- London, Hong Kong and Singapore all host major week long Fintech events to raise the profile of their local sectors and attract international Fintech talent and capital to their ecosystems.

And our research shows there are a number of emergent opportunity areas to be realised and key challenges to be addressed to successfully scale the Fintech opportunity for Sydney and Australia:

- To take advantage of the opportunities that Fintech presents requires a continued focus on customer expectations and needs as we see digital adoption continuing to grow. Further industry collaboration and an ability to compete in the Asian region is increasingly important as financial centres need to compete on the world stage. Finally we also need greater focus on our growing superannuation sector as both a potential source of capital and Fintech innovation; and

- In terms of key challenges, we continue to see the threat of international tech giants and disruptive start-ups entering financial services as significant for the local industry. Regulatory challenges continue to stifle innovation and have the potential to create uneven playing fields for incumbents, start-ups and tech giants alike. Sydney, and Australia more broadly, doesn't have a clear business brand for Fintech and beyond our quality of lifestyle there is a lack of clear incentive for international talent to come to Sydney to start a business.

Discussions with industry leaders across financial services and Fintech as well as regulators and government officials have identified some key areas of focus if we want to lead in Asia:

- Payments, Regtech and Blockchain are seen by the industry as key areas where Australia has potential to lead the world;
- To focus and accelerate growth in Fintech the role of government policy, support and vision for Fintech was highlighted as being critical along with the ongoing development of the regulatory environment and development of skills and talent attraction; and
- Although London is seen as the clear global leader there is an opportunity for Sydney to lead in Asia where we are viewed more credibly.

To further enhance and scale our Fintech ecosystem ten core recommendations for both private and public sector have been made:

ALIGNMENT

1. NSW Government to continue working with the Committee for Sydney and the private sector to refresh the existing NSW Government Financial Services Strategy, articulating a strong commitment to support and champion the growth of the Fintech sector, providing a focal point for the alignment of effort between the public and private sectors

PROMOTION

2. Foster greater alignment and coordination between and within Commonwealth and NSW Government agencies to actively promote Australia and Sydney as a leading global financial services centre, with a specific focus on Fintech and digital innovation
3. Provide continued promotion of and support for Fintech hubs, such as Stone & Chalk and Tyro Fintech Hub, and assisting them to provide opportunities for cross-industry collaboration and Fintech community engagement

CAPABILITY DEVELOPMENT

4. Drive public and private sector collaboration efforts and investment to develop 'priority' areas of capability in Payments, Regtech and Blockchain, leveraging our world leading financial infrastructure
5. Build meaningful international pathways for Australia's Fintech sector, helping to support the export of our leading Fintech capability offshore and to attract the best international Fintech companies to Sydney (Australia)

SKILLS AND EXPERIENCE

6. Develop Fintech skills and experiences (e.g. entrepreneurial, technology, etc.) in the local workforce and attract international talent to enhance the quality of ventures and support their ability to scale, as well as gain greater levels of capital (locally and globally)

POLICY AND REGULATORY SETTINGS

7. Facilitate active cross-industry engagement to support the Commonwealth Government to expedite policy frameworks in 'enabling' areas of capability, such as digital identity, open data and cyber-security
8. Engage policy makers and the regulatory community to improve the effectiveness of existing grants, incentives and regulatory settings, as well as introduce new measures to further enhance the Fintech sector's continued development

EDUCATION

9. Work with the regulatory community and private sector to create more effective mechanisms to educate consumers and businesses on digital financial services, helping to raise the awareness and understanding of new Fintech and/or digital financial products and services
10. Engage the university sector and leverage the capabilities research institutes, such as Data61, to research key Fintech themes and explore business opportunities for commercialisation (supporting 'priority' and 'enabling' areas of capability)

Getting this right has the potential to contribute to the development of other adjacent sectors. Fintech could play a key role in enabling smart city outcomes; for example, payments has the potential to influence and shape citizen behaviour around transport by creating differentiated transport pricing and rewarding outcomes that reduce congestion. Developments in blockchain and smart contracts could lead to better land-use management, title records and development processes. Insurtech combined with wearable technology can provide data and analytics to support health outcomes for chronic diseases (i.e. heart, obesity) and encourage citizens to actively take preventative measures.

Scaling the Fintech opportunity for Sydney and Australia is not simply about the development of the financial services industry. It also has the potential to develop infrastructure that can support the delivery of economic and societal benefits more efficiently and effectively; today and into the future.

AUSTRALIAN FINTECH BY THE NUMBERS

FINTECH HUBS

0

2014

2

2017

39%

39% OF INDUSTRY INTERVIEWEES IDENTIFIED **GOVERNMENT POLICY, SUPPORT AND VISION** FOR FINTECH ALONG WITH **THE REGULATORY ENVIRONMENT** AS KEY TO FINTECH GROWTH

FINTECH COMPANIES

<100

2014

579

EMPLOYING >10,000 STAFF

2017

70%

LONDON

SILICON VALLEY

NEW YORK

70% OF INDUSTRY INTERVIEWEES IDENTIFIED **LONDON, SILICON VALLEY AND NEW YORK** AS GLOBAL LEADERS IN FINTECH WHEREAS 7% THOUGHT AUSTRALIA WAS LEADING

59%

59% OF INDUSTRY INTERVIEWEES **IDENTIFIED REGTECH, PAYMENTS AND BLOCKCHAIN** AS AREAS WHERE AUSTRALIA HAS THE POTENTIAL TO LEAD IN FINTECH

FINTECH CAPITAL INVESTED ($US)

$428m	$675m
2014	2016

FINTECH INDUSTRY ASSOCIATIONS

0	2
2014	2017

FINTECH SPECIFIC VCs

2	5
2014	2017

FINTECH MEETUPS

> 8,000 MEMBERS

1	5
2014	2017

INTRODUCTION

DR TIM WILLIAMS, CEO,
COMMITTEE FOR SYDNEY

Sydney's financial services make a significant contribution to our national wealth and well-being. Through direct employment, the spin-off jobs which result and the contribution to national GDP, our financial services sector is important to an Australian economy transitioning to a services and knowledge economy.

Internationally Sydney's financial services sector has been benchmarked and is rising. Apart from its sheer quantum – Sydney's financial services sector creates 9% of national GDP and is bigger in scale than the financial services sector in either Hong Kong or Singapore – a key element in its emerging global reputation is the speedy progress we have made in Fintech in Sydney. This report reflects on that progress, the key factors behind it and what interventions or policies may be required to sustain or indeed increase the momentum.

Scaling the Fintech Opportunity is the second overview of Fintech in Sydney commissioned and published by the Financial Services Knowledge Hub, which is a collaborative initiative of the NSW Department of Industry, the Committee for Sydney and leaders in financial services and innovation in Sydney. The Knowledge Hub benefits from outstanding leadership and thinking from its board, for which we must recognise.

The first report, published in 2014, played a key part in catalysing the creation of Stone & Chalk, the first Fintech accelerator/co-working space in Australia. Cities collaborate to compete and the collaboration promoted by the first report and the partners to it helped create an institution which has helped to create a four-fold increase in the number of Fintech companies in Australia. It has helped to put Sydney, and Australia as a whole, firmly on the global map of Fintech pioneers and strengthened Sydney's reputation as an eco-system for financial services and technological innovation.

As Sydney is anything but a complacent culture, prompted by the governance of the Hub this second report was commissioned to ensure as a city and as a sector we understood where Sydney's financial services were maintaining their innovation and technological edge. We also wanted to understand what more might be required for its Fintech eco-system to flourish and to indeed further improve its reputation, competitiveness and attraction to global talent and investment.

Many things have changed since the first report, in part due to it. Firstly, the Hub itself attracted sector leaders in Sydney keen to collaborate to ensure Sydney's leading role in financial services was maintained not least because its continued momentum is in the state and national interest. Secondly, beyond the continued vitality of Stone & Chalk we now have a second and highly robust Fintech co-working space, including new innovators such as Tyro.

We also have seen our well-regulated and robust banking system itself take a deep dive into technological and service innovation to improve customer service and efficiency. This second report reminds us that Fintech innovation in Sydney is a core activity of the household names amongst our banks and financial service providers and is not confined to the growing band of Fintech start-ups in the nation's financial services and tech capital. Indeed, there is also greater and deeper collaboration between all parts of the Fintech universe of Sydney greatly reinforcing the momentum towards and capacity for innovation. There is also scope to examine the links between Fintech and other parts of the financial sector, such as superannuation funds. It is an area that the Hub will examine in its future work.

We also discover that this kind of convergence is not the only form taking place in Sydney today catalysed by the disruption Fintech. In addition to job spill overs from this high value economic activity there are also technological and skills transfers taking place at pace here, with skills learned or technologies developed for Fintech actually finding themselves being deployed in other sectors and industries and indeed government services. Reinforced by Sydney being at one and the same time the ICT, creative industries and financial services hub for the nation, we are seeing a deepening in Sydney of technical capacity, design-thinking, customer focussed activity, data analytics - and the employment opportunities which go with such a density of skills, initiatives and overlapping sectors. Modern knowledge economies thrive on agglomeration, collaborative diversity and convergence and the innovation they collectively promote. Fintech is now a key force supporting the forward-looking knowledge economy of the state and indeed the nation.

While the entrepreneurial spirit of private sector innovation drives much of this as we know cities collaborate to compete and the best cities globally collaborate better than the competition. That collaboration is seen in the work of the hub and it is not just across the sector, welcome and powerful though that has been. It isn't just between the bigger banks and the start-ups, real and important thought that has been. It is also between the private and public sectors. Financial services is a deeply regulated sector with government the key player. Appropriate regulation can create new markets but also stifle innovation. The report suggests ways in which regulation can be further improved to strengthen Fintech's continued development in Australia. It also reminds us what some highly engaged governments are doing internationally to support and promote the sector and its international reputation. Australia has a huge capacity to expand its international reach and export capacity and governments can play a key role in this.

At the same time, governments also play a key role in the eco system for economic activity and innovation. Ensuring Sydney's transport system is world class or that there is sufficient diversity and supply of housing to ensure that the city maintains its attractiveness to the pools of talent we need to succeed and perform our function as an engine of prosperity for NSW – these remain core factors behind our economic success over which governments have the main levers. Together, working collaboratively across the public and private sectors, we can make a great city – a leader in the sector in the region – greater still. We are determined to do so.

FINTECH TRENDS AND DEVELOPMENTS

FINANCIAL SERVICES INDUSTRY CONTEXT

Introduction

A decade ago brands such as Wealthfront, OnDeck, Zopa, Square and even PayPal had not attracted significant attention within the financial services industry. Today, financial technology (Fintech) is one of the fastest growing sectors in the global financial services industry, with total investment rising from $US100 million in 2008 to over $US24.6 billion in 2016. Its rapid rise embodies the transformation of the industry by digital means, with significant implications for consumers, businesses and government.

"We have to have the mindset of a Fintech company"; "We need to think and act like a 200-year-old start-up"; "If we don't innovate, we're toast".

These statements from the CEOs of Australian financial institutions (FIs) highlight three strategic implications for the future of the financial services industry. Firstly, technology disruption is quickly evolving the competitive landscape, lowering entry barriers for new players and creating new business models. Secondly, investment in digital innovation will be critical in delivering customer experiences that are being redefined by the likes of Uber and Airbnb. And thirdly, partnering with and/or sourcing capability from Fintech start-ups and technology companies will form an important part of the response for established FIs, as they more aggressively pursue revenue growth, cost efficiency and risk mitigation opportunities.

Fintech defined

Fintech refers to technology based businesses that compete against, enable and/or collaborate with financial institutions, as well as the digital innovation efforts of financial institutions themselves. It ranges from creating software to processes, that enable FIs to enhance their customer's experience and streamline their operations, or by consumers to fulfil their financial needs (saving, investment, make payments). Fintech developments are affecting all sectors of the financial services industry, such as lending, capital markets, payments, insurance and wealth management (industry verticals), as well as horizontal sub-sectors of enabling capabilities, such as blockchain, data and analytics, regulatory technology (Regtech) and digital labour, which includes robotics, cognitive automation, etc. (as presented above right).

The growth of the Fintech sector

In Australia, we have seen the number of Fintech start-ups increase from less than 100 in 2014 to an estimated 579 today, employing greater than 10,000 staff. In addition, $US675 million has been invested in the Fintech sector today compared to $US53 million in 2012.

While this growth has seen the emergence of Fintechs that are seeking to directly compete with incumbent players (the "carnivores"), with 30% of financial services industry revenue estimated to be at risk of disruption over the next five years, there is an increasing number of Fintechs looking to partner with or sell their services to FIs (the "herbivores").

Benefits of collaboration

There are benefits for both parties in a collaborative model. Fintechs gain access to a range of important growth levers: customers, distribution, data, capital, experience, licences, a trusted brand and an ability to scale much more quickly. Also, incumbents gain access to new ideas, solutions, capability, knowledge and potential investment opportunities in new players that are typically focused on a specific problem or opportunity and have significantly lower cost structures. It ultimately allows incumbents to be more agile and faster to market, as well as providing strategic optionality.

Factors driving the growth of Fintech

There are several factors that are reshaping the banking industry and fuelling the growth of Fintech - the accelerating pace of change, the proliferation of mobile devices and digital platforms, falling barriers to entry and greater competition, and a more supportive policy and regulatory environment for Fintech innovators - each playing an important role. However, above all, changing consumer behaviours and attitudes, led by the rising tide of millennials, and a move towards platform-based business models, will be the most fundamental driver of the industry's evolution in the future.

Millenials driving change

Gen Y already makes up 22% of Australia's population and will form 50% of the workforce in five years – therefore, they will be significant drivers of banking revenue in the not-too-distant future, with distinctive priorities and preferences. They rapidly embrace new technology, seek advice from alternative sources (e.g. social media) and demand greater levels of personalisation, convenience and immediacy. They are also increasingly less loyal to their financial institutions. In a recent KPMG study, 28% of Gen Y's surveyed hold financial products with three or more institutions, compared to 11% last year. An enhanced customer experience is key to attracting and retaining this group. For FIs, these attributes will be important to consider as they evolve their future products and services to meet these needs.

Rise of platform-based business models

In an industry traditionally dominated by large players, with historically product centric operating models such as financial services, the emergence of platform-based businesses in and outside of the sector will likely result in a shift in the balance of power towards platform providers themselves and the end customer.

Furthermore, as technology infiltrates every aspect of life, retail banks could become largely invisible to consumers, as banking activities become hidden for example by virtual assistants, activities become hidden by virtual assistants; for example, Amazon's Alexa fulfils daily personal, and financial obligations informed by data gathered from a fully connected way of life. The technologies that enable this scenario are all available today – advanced data analytics, voice authentication, artificial intelligence (AI), connected devices, application programming interface (API) and cloud technology.

In considering their responses, banks remain highly trusted and could develop 'lifestyle layers' to compete in the platform space, orchestrating eco-systems of Fintechs and other providers themselves for consumers and small businesses. If FIs are not leveraging these capabilities they face being disintermediated by, and disaggregated behind devices, services and 'life-style platforms' that manage more than financial services.

Incumbent responses

Clearly, the banking and finance industry is not standing still. FIs, globally and in Australia are increasingly recognising that investments in, and collaboration with, Fintech start-ups and other technology companies offers a broader range of new ideas and possibilities. According to the Wharton Business School: 'Disruptive innovations need not lead to an incumbent's fall, despite prevailing academic theory arguing otherwise. Start-ups introducing disruptive technologies are more likely to end up licensing to incumbents, forming alliances or merging with market leaders rather than turning into rivals.'

There is no doubt that the financial services industry of the future will look very different from what it does today. The landscape will be more competitive, more efficient and provide more customer choice. FIs will come under increasing competitive pressure unless they can leverage technology to cut costs, closer to leaner Fintech operators. Agile incumbents that are efficient distributors or acquirers of leading Fintech capability to meet adjacent customer needs have the potential to generate new sources of growth and value for customers.

SUMMARY OF KEY TRENDS AND DEVELOPMENTS IN THE AUSTRALIAN FINTECH SECTOR

Whilst global Fintech investment declined in 2016, Australia's Fintech investment remained strong, exceeding $US675 million in capital invested for the first time

Global Fintech VC investment reaches record high in 2016

Whilst 2015 marked a record high investment in the Fintech sector, global investment in Fintech declined substantially in 2016 (to $US24.6 billion from $US46.7 billion in 2015), with venture capital (VC) funding reaching an all time high of $US13.6 billion (compared to just $US100 million in 2008). Corporate VC (CVC) activity also crept to its highest level ever. Since 2013, CVC activity has grown from $US1 billion to $US4 billion annually.

From a regional standpoint, Asia also hit an all-time high $US8.6 billion in overall Fintech investment, with payments and wealth management dominating. Of the top 10 deals in the region, seven fell into the payments or wealth management verticals.

From a sub-sector perspective, global investment in insurance technology (Insurtech) companies surged ahead, more than doubling the $US590 million in investment recorded in 2015. Global venture investment in bitcoin and blockchain technologies also reached a high of $US544 million in 2016.

Australia Fintech investment remained strong

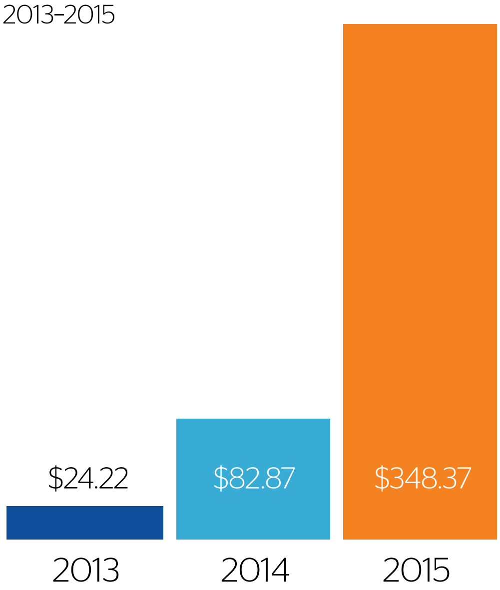
Despite the global slide in Fintech investment last year, Australian Fintech investment remained strong in 2016, with $US675 million invested across 25 deals, a major increase on 2015 – which saw $US185 million across 23 deals. VC investment in Australia also stayed at healthy levels, with $US71 million invested across 15 deals.

Australian deals are also starting to rate on a global scale, with larger investment deals and funding rounds, including Tyro Payments, Prospa, SocietyOne, Moula and MoneyMe.

Global alternative finance market

The total volume of alternative finance (Alt-Fi) has grown from $US24 million in 2013, to over $US348.37 million in 2015 with an average annual growth rate of 281% between 2013 and 2015. On a per capita basis, Australia also ranks third in funding for Alt-Fi in 2015 ($US14 million), with China in top place at $US75 million and New Zealand in second at $US59 million.

AUSTRALIAN ALTERNATIVE FINANCE MARKET VOLUME ($USD M)
2013–2015



Australia's $US348 million Alternative Finance (Alt-Fi) market including peer-to-peer lending and crowdfunding is the third largest in the Asia Pacific region and grew 320% in 2015

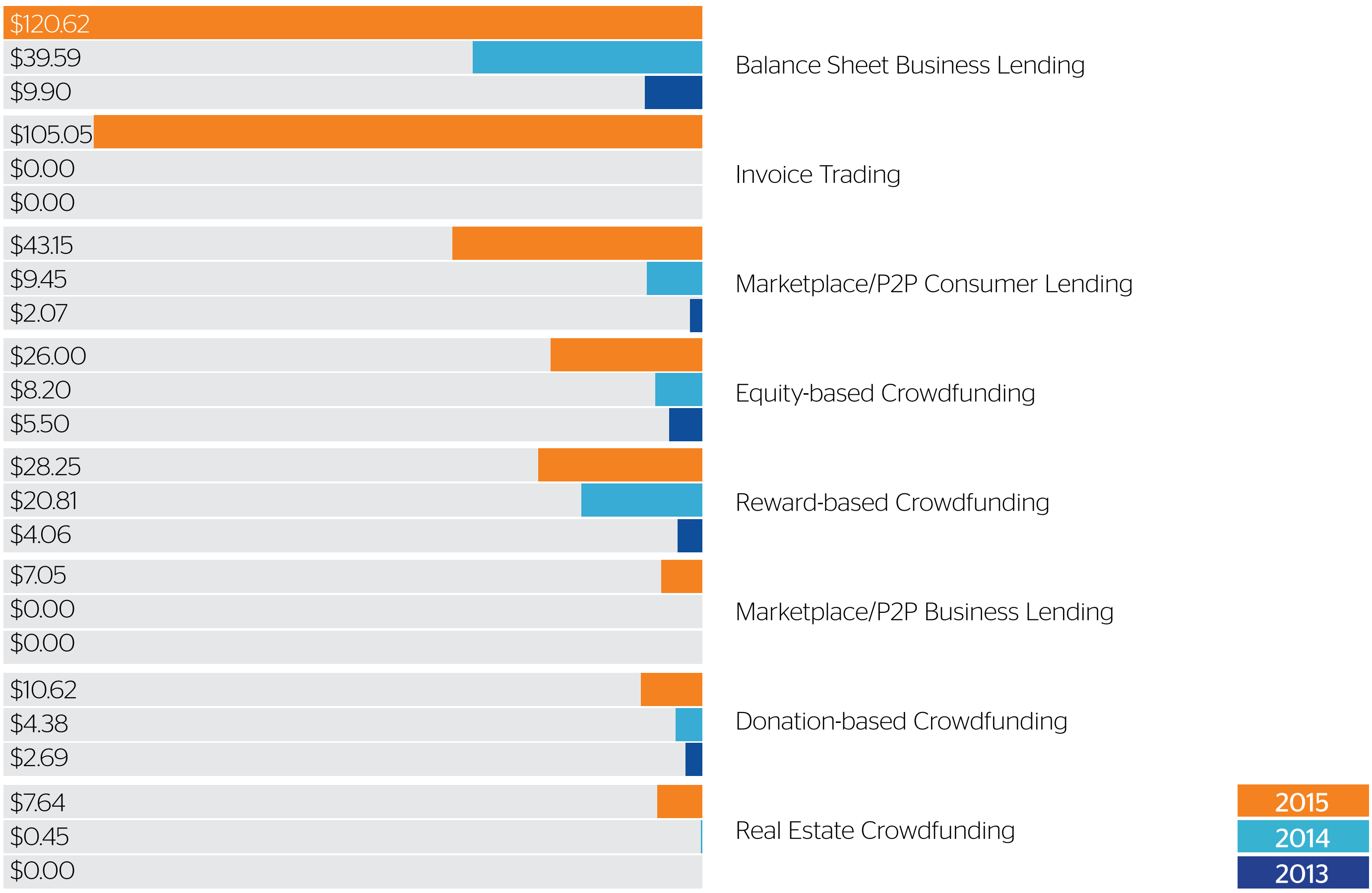
Australian alternative finance markets

The largest share of Australia's Alt-Fi market volume was balance sheet business lending, accounting for over $US120 million in 2015. Invoice trading came in second at over $US105 million. Marketplace/peer-to-peer consumer lending, the next largest segment of Australia's Alt-Fi market has grown from $US2 million in loans in 2013 to $US9.5 million in 2014 and then to over $US43 million in 2015.

In a relative context, Australia leads the Asia-Pacific in areas such as balance sheet business lending and invoice trading. Australian balance sheet business lending reported an average growth rate of over 252% between 2013 and 2015 and for invoice trading, volume grew by an average year-on-year growth rate of 1064% between 2013 and 2015 to almost $US117m in 2015.

AUSTRALIAN ALTERNATIVE FINANCE MARKET VOLUME BY MODEL ($USD M)

2013–2015



SUMMARY OF KEY TRENDS AND DEVELOPMENTS IN THE AUSTRALIAN FINTECH SECTOR

We are seeing a number of Fintech trends and changes in the marketplace: changing customer behaviour, investment and regulatory developments that are impacting the development of the Australian Fintech sector

Significant growth in the number and diversity of Fintech start-ups and companies

There has been a five-fold increase in the number of Fintech start-up companies in Australia over the past five years and the sub-sectors covered have become more diverse.

Increasing threat from international tech giants

Australian consumers are more willing to consider alternatives to traditional products and services. Over 80% said they would consider banking with a technology giant (e.g. Google, Amazon). We are seeing and expect to see more activity from international players, such as Alipay, who are actively globalising.

Growing advice from peers (due to rising mistrust)

A decline in the levels of trust in major institutions is seeing the rise of trust between strangers, as consumers are increasingly trusting and valuing advice from alternative sources.

Different spending and work habits

Prioritising spending on luxury items, travel and experiences over home ownership. An increasing proportion of consumers see themselves as entrepreneurs ("worker by day, entrepreneur by night").

Regulatory changes

Policy makers and regulators are increasingly aware of the potential of the Fintech sector to address issues of financial inclusion, affordability and literacy, and hence, are seeking to support the development of the sector. For established institutions, the heavy burden of post-GFC regulation and capital is drawing significant budgets.

Increased levels of Fintech investment activity

Investment in the Australian Fintech sector has risen from $US53 million in 2012 to cover $US675 million in 2016 (including M&A, Private Equity and Venture Capital investments).

Finance and payments "that don't touch the sides" and are integrated into customer experiences

Consumers' fast paced, time poor life-style is increasing their demand for faster, more convenient and accessible finance and payment services that are embedded into their lifestyle and experiences, e.g. buying a home.

Demand for greater personalisation of services

Consumers are embracing self-service and looking for time-saving solutions. Personalisation alone accounts for 23% of the overall quality of the customer experience.

Less loyal – cherry picking is on the rise, particularly with Gen Y

Consumers are increasingly value-driven and less loyal to financial institutions. 28% of Gen Y respondents are holding products with three or more institutions (an increase from 11% two years ago).

Unbundling of the financial services value chain

The proliferation of Fintech companies and other tech start-ups whose business models are focused on solving specific customer 'pain points' and addressing particular profit pools, is leading to the unbundling of traditional financial services value chain.

The Fintech opportunity spans the full spectrum of the Australian financial services industry

BANKING

Lending is one of the most profitable segments of the banking industry and unsurprisingly has attracted a significant breadth of activity and investment from a Fintech standpoint, across both consumer and business segments. Prominent Fintech companies include SocietyOne, Ratesetter, Direct Money in consumer lending, and Prospa, Moula, OnDeck and Spotcap in business lending.

The Banking industry has worked closely with Fintech companies, by investing in the lending platforms or forming partnerships/referral arrangements (e.g. CBA with OnDeck, Westpac with Prospa). Some of the banks have chosen to develop or incubate their own Fintech propositions, e.g. NAB with QuickBiz and Macquarie with its commercial broker platform, Kubio.

Another area of substantial focus has been mortgages, with a number of platforms, such as Lendi, Valiant Finance, Loan Dolphin, Uno, Joust and HashChing, targeting the segment, as well as enabling Fintech companies, such as Avoka, Cloudcase and Moneycatcha.

PAYMENTS

Payments features the largest number of Fintech companies in Australia. As Australian consumers are early adopters of mobile technology, with very high usage of contactless payments, and coupled with the advanced nature of digital/mobile offerings from established banks and payments providers, this has been a catalyst for Fintech start-ups targeting the segment.

Australian companies, Tyro Payments and AfterPay are success stories and are now forming a partnership. International payments companies, such as Mastercard and Visa, continue to work with local bank partners on new payments innovations. Apple Pay, Adyen, WorldFirst, WorldPay and Alipay have also entered the market in recent times.

The introduction of the New Payments Platform in late 2018 is expected to spur greater levels of interest and activity from local and international Fintech start-ups and companies. This innovation will target a number of segments, including consumer, business and Government.

Finally, it is important to recognise that payments is both a specific sub-sector of Fintech and a component of many other broader technology categories (i.e. that aren't payments focused per se, such as those in transport, retail, health, etc.). As such, the Australian banking industry is actively engaged other tech start-ups, as evidenced by recent partnerships, such as NAB with Localz and Medipass, and Westpac with Surgical Partners.

CAPITAL MARKETS

Capital markets is a heavily technology-dependent segment and confronting the combined challenges of substantial regulatory change, a lower volume/growth environment and high cost structures, participants are actively pursuing technology innovation agendas.

The ASX is progressing with its pilot of distributed ledger technology as a potential replacement option for CHESS (working with Digital Asset Holdings) and is working with Fintech companies, such as Cinnober Financial Technology (Sweden) and Metamako (Australia).

Capital markets has also seen a strong level of Fintech activity from Australian start-ups, such as OnMarket BookBuilds, which launched in 2015 and is the first online platform that lets investors buy shares in IPOs free of any fees other than the cost of the shares.

Stone & Chalk resident, Metamako, has also achieved success since its establishment in 2013 and is exporting its hardware devices to some of the world's largest banks in the UK and US, and has also attracted an offshore investor.

Australian insurers are getting more actively engaged; with IAG and Suncorp, being partners of Stone & Chalk, as well as investing and partnering with Fintech companies, such as Trov, and enhancing their data and analytics capabilities.

INSURANCE

There is high demand from Australian insurers looking for new technologies to improve customer service, deliver services in new ways and to transform operational models. Theoretically, that should create a great opportunity for insurance start-ups to collaborate. However, despite a clear need to address insurance technology, Insurtech has largely been left behind in terms of the Fintech agenda in Australia and New Zealand.

While Insurtech is now attracting venture capital from insurers overseas (with over $US 1 billion invested globally in 2016), the start-up market in Australia is limited. Less than 3% of the Fintech companies in Australia are Insurtech. Examples of local and international Fintech players are CoverGenius and Trov.

There are also broader opportunities in areas, such as telematics, Internet of Things, drone technology, driverless cars and wearables that will foster innovation in the insurance sector. Insurers are developing new offerings, such as cyber insurance, 'Just-in-time' insurance, health wearables, etc.

Australian insurers are getting more actively engaged; with IAG and Suncorp, being partners of Stone & Chalk, as well as investing and partnering with Fintech companies, such as Trov, and enhancing their data and analytics capabilities.

The local Insurtech community is also developing with the first meetup held in late 2016 and the first conference organised by the Australian New Zealand Institute of Insurance Finance (ANZIIF) in early 2017.

WEALTH MANAGEMENT & SUPERANNUATION

Many Fintech start-ups and companies with digital business models have emerged within the wealth management industry over the past few years, with Wealthtech ranking as the third largest number of Fintech companies in Australia.

Many are focused on robo or digital advice models, such as Stockspot and Fincast, and others in broader categories of investments and trading, such as Macrovue, Simply WallSt, SelfWealth and Sharesight.

With the superannuation industry controlling significant pools of capital, it will be subject to the same competitive pressures of Fintech disruption faced by banks and insurers. This is particularly so as younger Australians become more engaged with financial services and superannuation fund selection through digital means.

Whilst there has been relatively low levels of engagement with Fintech companies from the superannuation sector, this is changing. In 2015, First State Super announced a partnership with H2 Ventures to support Fintech start-ups, to deploy around $A250 million in technology innovation and earlier this year, Hostplus announcing an $A85 million investment in venture capital fund, Artesian.

This activity and investment is predicted to increase as more Fintech companies focus on this market opportunity, e.g. Zuper, Spaceship, etc.

WHERE HAVE WE COME FROM

Our 2014 report identified five key enabling conditions and made six key recommendations to accelerate the growth of the Fintech sector in Sydney

In our 2014 report Unlocking the potential: The Fintech Opportunity for Sydney we argued that in order for Sydney to lead in the Fintech sector it was required to build and strengthen the pipeline of Fintech ventures looking to call Sydney home. To do so would require concerted action from both the public and private sector, and the following key enabling conditions were identified for a successful Fintech sector:

- a concentration of and access to financial services and technology talent;
- increased availability of funding at both seed and venture capital stages;
- government and business support for technology start-ups;
- a clear leadership position in financial services; and
- a culture that embraces the entrepreneurial mindset.

The 2014 recommendations were based on the following six specified areas that warranted attention in order to position Sydney as a globally recognised, respected and attractive city for the emerging Fintech sector:

1. VISION & STRATEGY

- Fintech start-up activity tends to occur in large metropolitan areas.
- Establish a coherent and supportive entrepreneurial vision and strategy for Fintech at a city level (Sydney).
- Consider Fintech in a broader global financial services context and particularly Asia as an export opportunity.

2. COMMITMENT

- It is important for government (and regulatory agencies) to publicly state their commitment to supporting the development of the Fintech sector.
- Maximising the opportunity will take strong commitment from government and industry.

3. ALIGNMENT

- To accelerate the development of the Fintech sector, alignment and coordination of activity and investment is required (government, regulators, start-ups, industry, academia).
- Explore adjacent opportunities and benefits across sectors, e.g. financial services, ICT, professional services.

4. ACCESSIBILITY

- Critical to any start-up is access to funds and expertise.
- Beyond this there is also a need for access to regulators, government and data.
- Government providing a single point of contact for start-ups to remove bureaucracy.
- Sydney needs a clear point of entry for Fintech where various stakeholders can come together.

5. COLLABORATION

- A 'centre of gravity' or physical focal point needs to be established.
- Fintech requires established financial services organisations and new ventures to come together.
- Problems need to be shared and safe environments created to truly foster innovation.

6. PROMOTION

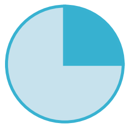
- Financial services and Fintech both need a champion and voice at local and global levels.
- This needs to be at both an industry level and also at a political level.
- Promotion can be used as an effective tool to attract capital, investment and the best talent (locally, regionally and globally).

A number of recommendations have been implemented with significant impact on the growth of the Fintech sector not just in Sydney but across Australia

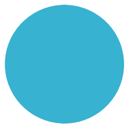
Whilst good progress has been made on a number of recommendations, there are key areas where limited progress has been made that will impact our ability to compete, both regionally and globally, in the Fintech sector and the financial services industry more broadly.

RECOMMENDED ACTIONS / PROGRESS

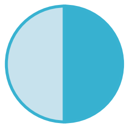
1. **State Government to continue working with partners in the private sector and the Committee for Sydney on the development of a comprehensive Fintech vision and strategy for Sydney**, providing a focal point for the alignment of effort across the public and private sector and articulating a clear commitment to the Fintech sector



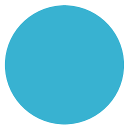
2. **Explore the establishment of a not-for-profit Fintech hub in the heart of the city that co-locates technology start-ups, venture capital and established financial services firms**



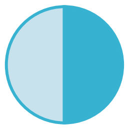
3. **Government (local, state and Commonwealth) to promote Sydney as the leading Fintech centre in the ASPAC region and establish a series of events in the city, regionally and globally**, to showcase Fintech in Sydney, in line with our leading financial services position



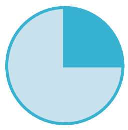
4. **Form an independent Fintech focussed industry association, based in Sydney**, to give the sector a strong voice and champion



5. Work with the Federal Government and regulatory agencies, **to enhance the current regulatory, tax and business incentives available to the start-up community, as well as introduce measures to target foreign entrepreneurs**, by attracting them to Sydney



6. **Engage the university sector and leverage research institutes, such as the Centre for International Finance and Regulation (CIFR)** to research key Fintech themes and explore business opportunities for commercialisation



KEY OUTCOMES SINCE THE REPORT

- A comprehensive Fintech vision and strategy for Sydney has yet to be articulated and remains a critical piece to focus effort and drive collaboration and commitment across the public and private sector to the Fintech sector
- This report has the potential to act as a catalyst for this action to progress

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- The not-for-profit Fintech hub Stone & Chalk opened its doors in August 2015 and expanded to a second floor in mid 2016 (and recently announced a new location)
- NSW Government and 25 Corporate partners provide funding and support
- 101 Fintech start-up companies with 342 members and $A101m in capital raised

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- NSW Government founding member of Stone & Chalk (August 2015)
- Federal government Fintech advisory panel established with a key focus to make Australia the leading Fintech centre in the Asia pacific region and $A150,000 provided to support Stone & Chalk's Fintech Asia Program (February 2016)

- Fintech Australia established in August 2015 as an advocacy body and industry association with board members from the national Fintech ecosystem and 100+ Fintech member companies have joined

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- ESIC (Early Stage Innovation Company) taxation benefit was introduced to encourage investment by offering a non-refundable carry forward tax offset of up to 20% of the amount paid for qualifying investments capped at $A200,000 each income year. In addition, a non-refundable carry forward tax offset of up to 10% on contributions made by a limited partner to an ESVCLP was also introduced.
- ASIC Innovation Hub established to support Fintech's to navigate the regulatory landscape (August 2015)
- ASIC Regulatory Sandbox to support Fintech innovation (March 2017)

- Engagement with the university sector needs further progress to advance key aspects of Fintech and further develop business opportunities for commercialisation

WHERE ARE WE NOW

NSW AND SYDNEY FINTECH DEVELOPMENTS OVER THE PAST 3 YEARS

The Fintech ecosystem in NSW and Sydney has potential to benefit from national initiatives

Changes to the regulatory environment, tax incentives and visa developments mean that the platform to enable growth in Fintech is much improved to what was available in 2014. There has also been specific government action at a federal level to fund Fintech related activities (such as the Fintech in Asia initiative) which has provided support to programs run out of NSW for the benefit of the nation as a whole.

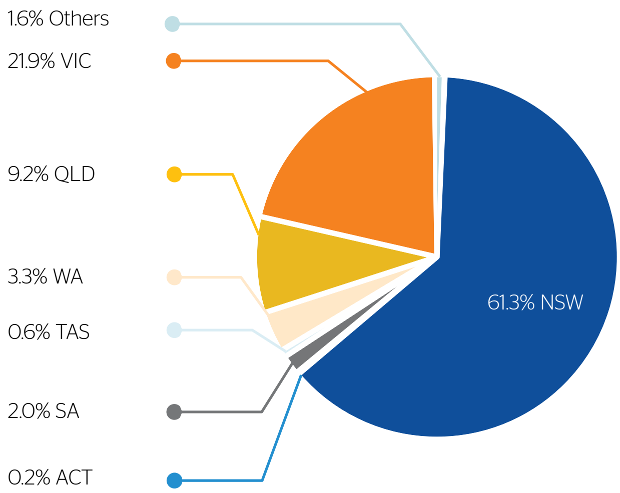
NSW and Sydney lead the way in purpose built Fintech infrastructure

Perhaps the key differentiator in the growth and development of Fintech in NSW and Sydney is the fact that both Stone & Chalk and the Tyro Fintech Hub are located here. This provides two physical locations purpose built to support Fintech ventures to start and grow combined with education events and accelerator capabilities. Sydney is also home to three specific Fintech investors in Reinventure, H2 Ventures and Apex Capital. This creates a concentration of both talent and capital aligned in a jurisdiction with strong financial services capabilities.

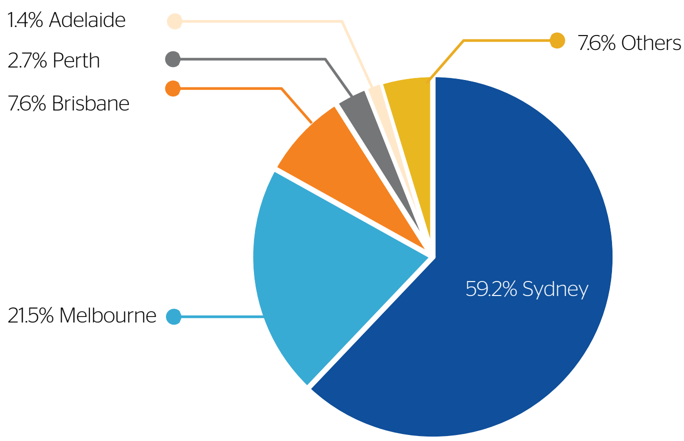
NSW leads the way in terms of Fintech companies with 61% of all Australian Fintech companies being based here.

Of these the vast majority are located in Sydney with 59% of Fintech's nationally basing themselves in Sydney. By comparison Victoria, which is the next closest in terms of number of Fintech companies has 21% of companies based there, with Melbourne the home base for many of them.

AUSTRALIAN FINTECH COMPANIES BY STATE



AUSTRALIAN FINTECH COMPANIES BY CITY



NSW AND SYDNEY FINTECH DEVELOPMENTS OVER THE PAST 2 YEARS

Sydney has dominated the Venture Capital landscape in Australia with $US180m invested between 2012 and 2016

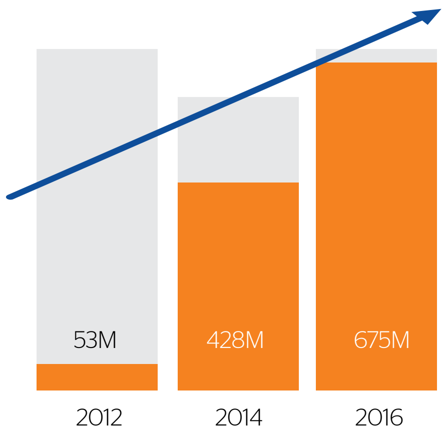
The majority of Sydney's VC investment in Fintech has come in the last two years ($US129 million) and the last three years combined account for 95% of all investment ($US171 million). Over the same period (2012-2016) Melbourne based Fintech attracted $US22 million in VC investment. Jointly Sydney and Melbourne account for 75% of all VC investment nationally.

Fintech concentration and weight of Venture Capital are driving growth in Fintech for NSW and Sydney but we are seeing strong growth elsewhere in the Asia Pacific region

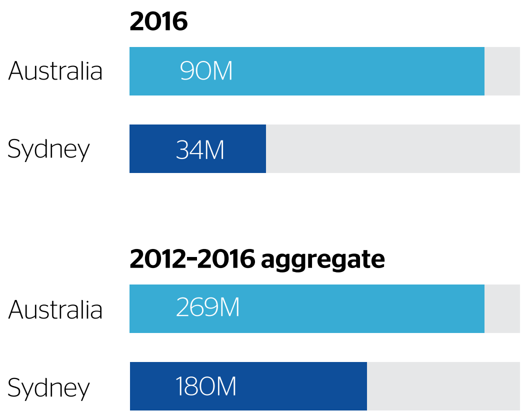
Whilst Sydney has seen an increase in Venture Capital investment into Fintech, both Hong Kong and Singapore have shown equally impressive growth. Hong Kong had Fintech investment for the 2012-2016 period of $US328 million and Singapore $US324 million, both substantially outpacing the investment in Sydney.

In Hong Kong 77% of this investment has come in the last two years, reflecting an aggressive increase (71% of Singapore's investment was also in the last two years). This reflects the intense global and regional competition we face in becoming a leading global or regional player.

TOTAL FINTECH INVESTMENT IN AUSTRALIA ($USD)

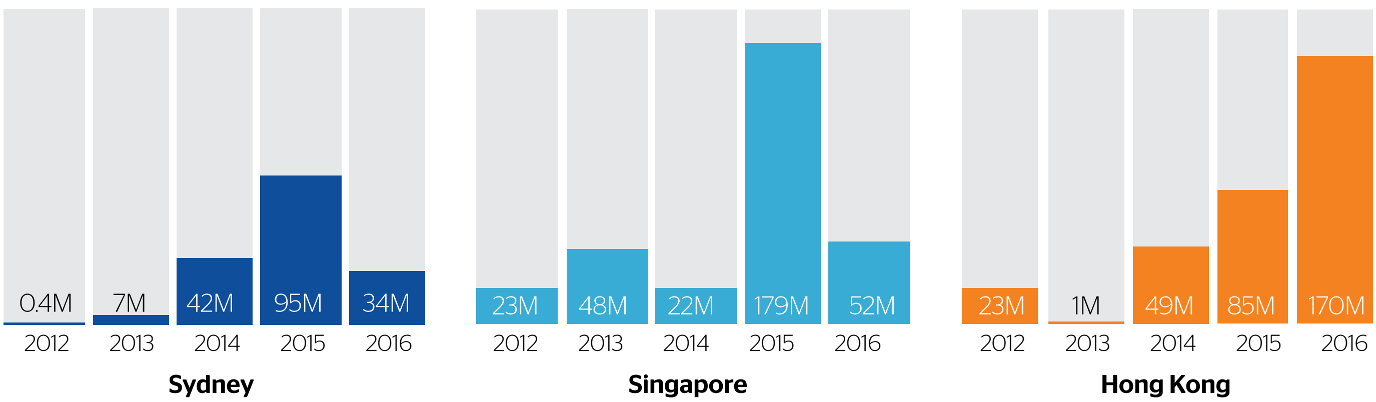


TOTAL FINTECH VC INVESTMENT IN AUSTRALIA ($USD)



TOTAL FINTECH VC INVESTMENT

Sydney compared to Hong Kong and Singapore 2012-2016



NSW AND SYDNEY FINTECH DEVELOPMENTS OVER THE PAST 3 YEARS

Key government policy & regulatory framework changes

- **In March 2016:**
  - ASIC and UK FCA signed a Co-operation Agreement to refer innovative businesses to one another for support before, during and after market entry to reduce regulatory uncertainty and time to market
  - ASIC Digital Finance Advisory Committee formed and includes a cross-section of the Fintech community to help inform regulatory efforts in this sector
  - ASIC guidance provided on marketplace lending to assist peer to peer lenders manage and meet obligations under the National Consumer Credit Protection Act
- **In June 2016:** ASIC and The Monetary Authority of Singapore (MAS) signed an Innovation Functions Co-operation Agreement aiming to help innovative businesses in Singapore and Australia in their foray to the respective markets
- **In November 2016:** ASIC and the Ontario Securities Commission (OSC) Co-operation Agreement to refer innovative businesses to one another for support before, during and after market entry to reduce regulatory uncertainty and time to market
- **In December 2016:** ASIC released class waivers to allow eligible Fintech businesses to test certain specified services without holding an Australian Financial Services Licence (AFSL) or Australian Credit Licence
- **In March 2017:**
  - ASIC launches regulatory sandbox to allow eligible Fintech businesses to test certain services for up to 12 months without an Australian Financial Services or Credit Licence
  - The Corporations Amendment (Crowd-Sourced Funding) Act 2017 released
- **In April 2017:** ASIC and OJK (Indonesia) signed Co-operation Agreement agreeing to share information on emerging market trends and regulatory issues arising from the growth in innovation
- **In May 2017:**
  - the 2017 Budget continues to commit to establishing Australia as a leading global Fintech hub by building on its policies, including reducing barriers for new banks, and removing double taxation of digital currencies
  - The Corporations Amendment (Crowd-Sourced Funding) Act 2017 released
  - ASIC proposes to establish a new regtech industry liaison network, conduct a number of new technology trials using regtech applications and establish a 'hackathon' later in 2017 to help identify roadblocks to the successful and rapid take-up of the sector (as part of an industry consultation process)
- **In June 2017:**
  - ASIC commencing consultation on the proposed guidance on crowd-sourced funding
  - ASIC and The Japan Financial Services Agency ('JFSA') announced the completion of a Co-operation Framework enabling the JFSA and ASIC to share information and support the entry of innovative fintech businesses into each other's markets.
  - ASIC and Malaysia Securities Commission signed a Cooperation Agreement to provide a framework for cooperation to support and understand financial innovation in each economy.
  - The Hong Kong Securities and Futures Commission ('the SFC') and ASIC signed a Co-operation Agreement which provides a framework for cooperation to support and understand financial innovation in each economy.
  - Access to Private Venture Capital Funding
- **In July 2015,** the Significant Investor Visa program included venture capital as an acceptable asset class for high net worth individuals seeking investment migration
- **In October 2015,** the Premium Investor Visa introduced to attract a small number of high net worth individuals to contribute their entrepreneurial skill or talent to Australia
- **In July 2016:**
  - Federal government introduced tax incentives for investors in an early stage innovation company (ESIC) offering an upfront benefit and modified capital gains tax treatment
  - Early stage venture capital limited partnerships (ESVCLP) tax benefits modified to include an up-front benefit and an increase in the maximum fund size
- An increase in the availability of venture capital **over the last 3 years** from approximately $A62 million to $A156 million

Attraction of Talent/Skills

- **In July 2015,** ESOP changes introduced to make it easier for small start-ups to attract and retain the talent
- **In September 2016,** Entrepreneur Visa established to attract international talent to Australia to build their ventures through enterprise development or product commercialisation
- **In December 2016,** Australian university graduates in STEM and ICT will receive extra points under the points tested Skilled Migration program to qualify for a permanent work visa.

Enabling Business Environment & start-up Eco-system

- **In December 2014**, the New Payment Platform Australia (NPP) was formed to build and operate an open access payment infrastructure for the Australian economy to provide real-time, secure and efficient payment options
- **In April 2015,** Tyro Fintech Hub established providing co-working space and potential to Tyro payment and banking infrastructure
- **In August 2015:**
  - Stone & Chalk launched to act as a centre of gravity for Fintech in Sydney and Asia Pacific
  - ASIC Innovation Hub launched to provide support to Fintechs seeking to understand ASICs regulatory system
- **In February 2016,** Stone & Chalk launches Fintech Asia program with $A150,000 in funding support from the federal government

AUSTRALIAN FINTECH LANDSCAPE BREAKDOWN

An emerging number of international Fintech companies are targeting Australia

An important dimension of Australia's developing Fintech eco-system is that increasing numbers of international Fintech companies see Australia as an attractive destination for expansion. There are 13.5% of Fintech companies from international jurisdictions.

Mature Fintech markets dominate

Unsurprisingly given the maturity of their respective Fintech marketplaces, the US and the UK feature the most Fintech companies in terms of countries of origin.

The US comprises almost half of total foreign Fintech companies

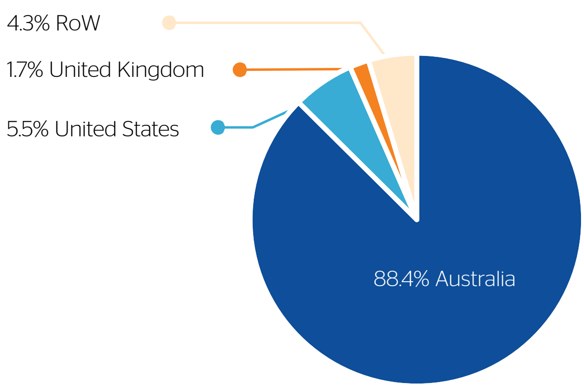
Fintech companies from the US dominate the list of foreign Fintech companies, with 48% of international Fintech from the US. Leading US Fintech companies that are in Australia include OnDeck, Square, Stripe, Ripple and Digital Asset Holdings.

Other notable international Fintech companies in Australia include Transferwise (UK), OurCrowd (Israel), Spotcap (Germany), Xero (NZ), Adyen (Netherlands).

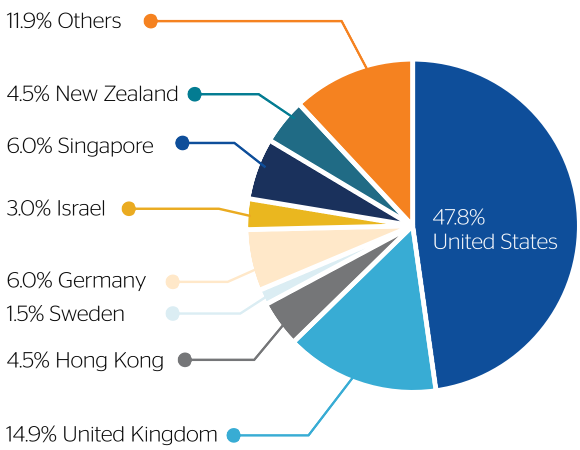
ASPAC is a surprisingly low source of foreign Fintech companies

Fintech companies from ASPAC are relatively low at around 20% of total foreign Fintech companies. The reason for this is the relatively immature state of Fintech eco-systems from ASPAC and hence, the Fintech companies are still in early stages of growth and have not yet turned their attention to expansion opportunities offshore. This also reinforces the opportunity that ASPAC represents for Australian fintech exports.

FINTECH COMPANIES BY COUNTRY



BREAKDOWN ON INTERNATIONAL FINTECH COMPANIES IN AUSTRALIA



The Fintech eco-system in Australia is increasingly diverse

As demonstrated by the analysis of sub-sectors, the Australian Fintech eco-system is increasingly diverse. The two largest sectors by number of Fintech companies, as well as investment, continues to be Payments and Lending, similar to our report in 2014, with substantial growth in the number of Fintech companies in both categories.

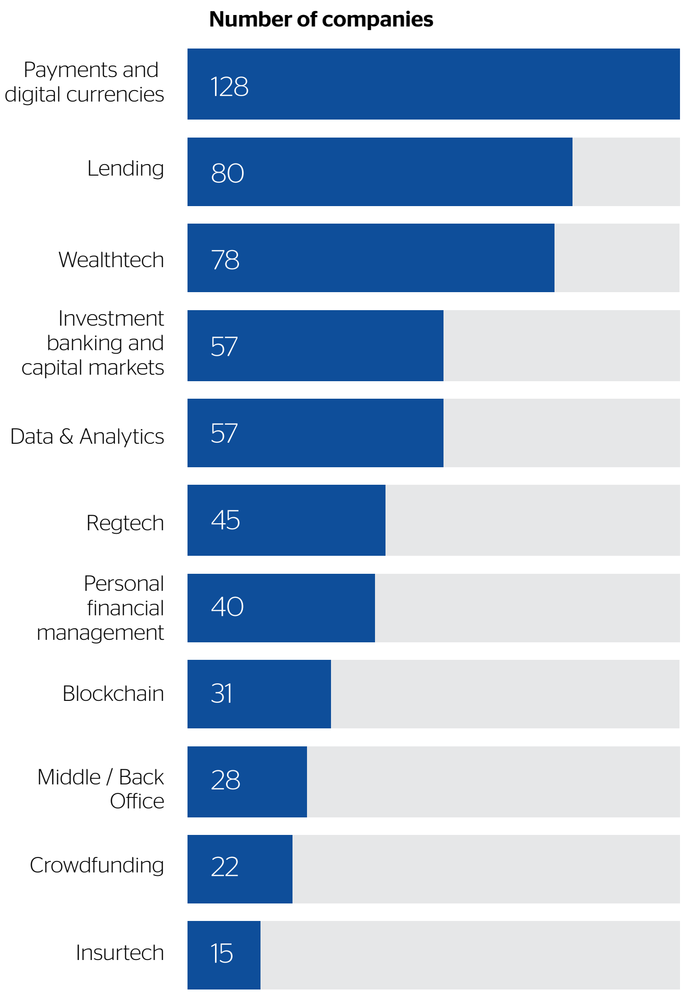
Payments is expected to continue its growth, particularly on the back of the New Payments Platform going live later in 2018, as Fintech companies, locally and globally, seek to benefit from this new national infrastructure. Areas such as Wealthtech and Capital Markets have also continued to grow, reflecting the sophisticated state of our financial services industry.

Emergence of new Fintech sub-sectors

Regtech, Blockchain and Insurtech are new categories that have emerged since 2014, with more than 90 Fintech companies in these sub-sectors. Regtech in particular has been a fast-growth sub-sector which has grown rapidly over the past 12 months which is a reflection of the substantial regulatory and cost burden for financial institutions, as well as policy makers and regulators who are supportive of the industry finding more effective means to better manage risk, compliance and transparency for stakeholders.

A relatively new sub-sector which has grown substantially has been Data & Analytics, which is also an important enabler for other categories of Fintech, and therefore, is a positive dimension for the continued expansion of Fintech.

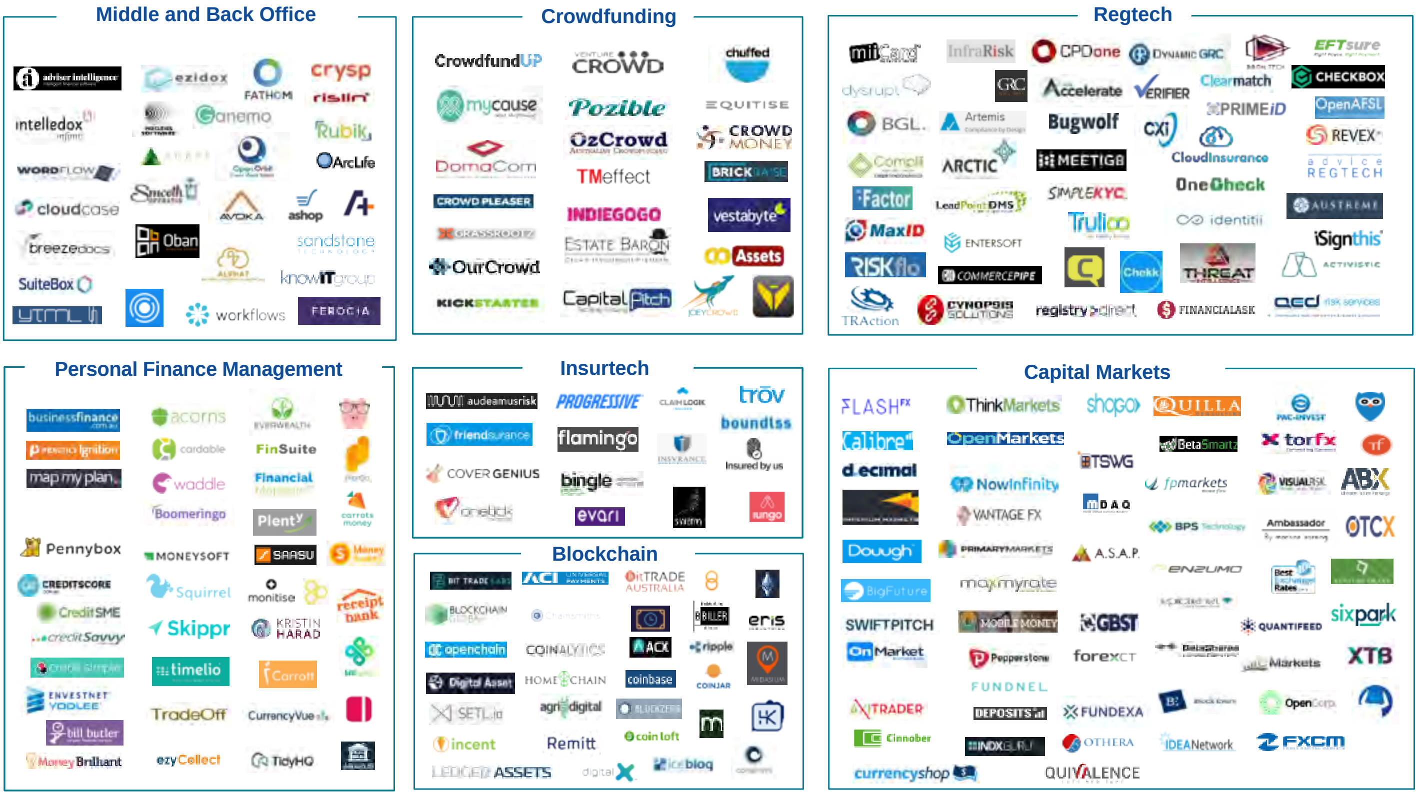
AUSTRALIAN FINTECH COMPANIES BREAKDOWN BY SUB-SECTOR



A KEY INDICATOR OF THE GROWTH IN THE FINTECH SECTOR HAS BEEN THE INCREASE IN FINTECH COMPANIES TO OVER 575

Australian Fintech Landscape (575+)

Australian Fintech Landscape (575+)



Key to this growth has been the impact and influence of Stone & Chalk and Fintech Australia which have been government and industry led outcomes from the 2014 report

Stone & Chalk

Stone & Chalk was established in August 2015. Since its opening it has grown to house close to 100 start-ups and 350 residents. These start-ups have collectively raised over $100m in capital and employed an additional 300 people so far. In only 18 months since opening Stone & Chalk has already been recognised as one of the top 10 Fintech hubs globally.

Stone & Chalk operates as a not-for-profit and is able to do this through the support of 25 corporate partners including NSW Government. Its corporate partners are a mix of banks, insurers, super funds, technology companies and professional service firms. Stone & Chalk has also recently announced its new location in Sydney (the Sydney Start-up Hub at Wynyard Green and its expansion in Melbourne.

Stone & Chalk residents and partners are a good representation and strong cross-section of the broader Fintech ecosystem. It acts as "ground zero" for driving industry initiatives and has a running agenda of events and programs to promote Fintech including: Women in Fintech, Insurtech, Cyber Security Innovation program, the 'Fintern Fever' program which places top students from leading universities in to internship opportunities with startups, the Fintech Connect Asia program which brings together a network of Fintech hubs, investors, corporates and startups across Asia and supports TechFugees which aims to help place recent refugee arrivals with paying work in technology companies.

Stone & Chalk residents are a combination of different industry and technology verticals including:

- Alternative lending
- Investment management
- Payments
- Regtech
- Insurtech
- Capital markets
- Data analytics
- Internet of Things
- Blockchain
- Cyber security
- Agtech

Fintech Australia

Fintech Australia was established in November 2015 and appointed its inaugural CEO in June 2016. This complemented the establishment of the Federal Government's Fintech Advisory Group in February 2016. The group's board is made up of a committee of seven members who are nationally located in Australia's major cities i.e. Sydney, Brisbane, Melbourne and Perth. Membership has grown from 52 in March 2016 to 110 paid members in April 2017.

Fintech Australia's vision is to be the leading market for Fintech innovation and investment in Asia. Its objectives are to create the best environment for Fintech start-ups to establish and grow their companies and to create an eco-system of partners to support the development and growth of the Fintech community.

In 2016 Fintech Australia produced a Fintech Census (undertaken by EY). The Census noted a number of interesting findings including:

- 54% of start-ups were located in NSW (28% VIC, 18% Other)
- Only 13% Female participation (87% Male)
- 41% of participants nominated building partnerships with banks and other financial institutions as a key external challenge
- 76% agreed government mandated open data protocols would be effective
- 40% were operating with a financial licence

There are many success stories in the Australian Fintech eco-system, across payments, alternative finance and data & analytics

Tyro

- Founded in 2003 after the RBA announced that they were offering a special bank license and access regime to attract 'non banks' into the payment space to generate innovation and competition.
- Tyro has brought banking to the internet by marrying its tech DNA with its banking DNA. It provides a suite of integrated, mobile, cloud-based banking solutions to Australia's small-to-medium enterprises.
- It became the first technology company to be granted a banking licence by the Australian Prudential Regulatory Authority, allowing it to take money on deposit and to advance money to Australian businesses.
- Established Australia's first Fintech Hub 'for entrepreneurs, by entrepreneurs' which has seen many start-ups mature into significant growth companies, including Neu Capital, Spaceship and HashChing.
- Raised $AU100 million from Tiger Global Management in New York, TDM Asset Management in Sydney and Australian tech-entrepreneur, Mike Cannon-Brookes, to accelerate its growth initiatives and new product development.
- In 2017, partnered with Afterpay to integrate Afterpay's services ("buy now, receive now, pay later") with its point of sale software terminals to help customers increase sales.

Data Republic

- Raised $10.5 million from NAB, Qantas Loyalty and Westpac's Reinventure Fund.
- Partnered with Westpac to launch a world first in the banking of data – a Personal Information Databank.
- Co-founded Data Governance Australia with ADMA, an association to help Australian industry jointly manage and self-regulate ethical data governance.
- In August 2016, launched world's first Open Data Marketplace allowing organisations to list, exchange and collaborate on data exchange projects in a secure environment.
- Founded a data-for-social Not For Profit, The Minerva Collective, to connect social impact organizations with access to data and analysts to help them solve social issues.
- Former EMC Chief Solutions Strategist and Tyro co-founder joined Data Republic as Chief Technology Officer and Chief Operating Officer respectively, to drive expansion strategy in the United States.

Prospa

- Secured a deal with AFG to sell Prospa's loans via its broker platforms.
- Raised $60 million from The Carlyle Group, Ironbridge Capital, Entrée Capital, AirTree Ventures and David Fite.
- Partnered with Mortgage Choice to deliver a broader range of commercial lending and cash flow financing solutions to customers nationwide.
- In February 2017, raised $25 million in funding round led by AirTree Ventures with Entrée Capital and Ironbridge Capital.
- Have received multiple awards for being the fastest growing tech company in Australia and Asia-Pacific, including recently awarded as the Lending Innovator of the Year in the inaugural Fintech Business Awards.

SocietyOne

- In Feb 2014, raised $5 million from Westpac Group's Reinventure Fund
- In Dec 2015, raised $20 million from Australian Capital Equity, Consolidated Press Holdings and News Corp Australia
- Partnered with Veda to promote getcreditscore.com.au and offer more credit scores for free
- In May 2016, raised $25 million from existing and new shareholders
- In April 2017, set new lending record of $250 million for marketplace lending
- Recently awarded by Fintech Australia for "Excellence in Peer-to-peer Lending" for stringent security measures, a strong market reputation, ease of application and competitive interest rates and loan terms.

There are many success stories in the Australian Fintech eco-system, across payments, digital automation, capital markets and including H2 Ventures, the only stand alone Fintech accelerator in Australia

afterpay

- More than 2,000 retailers use the platform, including the Super Retail Group, Myer, Big W, Officeworks, Optus, Cotton On and General Pants Co.
- In May 2016, listed on Australian Securities Exchange (ASX).
- Partnered with Tyro to integrate Afterpay's services ("buy now, receive now, pay later" in four fortnightly instalments) with Tyro's point of sale software terminals.
- In February 2017, announced merger with payments system Fintech, Touchcorp, to form a new public company.
- Expanding its reach by partnering with New Zealand's marketplace and classifieds website, Trade Me, to offer Afterpay's services as an option exclusively on its platform.

H2 VENTURES

- Established H2 Accelerator, an accelerator program dedicated to support Fintech, data and AI start-ups across Australia and New Zealand.
- Invested in over 20 Australian Fintechs.
- In collaboration with KPMG, releases an annual "Fintech 100" report identifying the leading 50 'established' Fintech companies across the globe, and the most intriguing 50 'emerging stars'.
- Attempted to raise $55 million in investment capital through an IPO; however, failed to achieve sufficient interest from institutional investors.
- Instead secured $4 million funding from Investec to invest in up to 40 start-ups underwritten by a New South Wales Government-backed guarantee of $2 million.

AVOKA

- Over 100 financial institutions worldwide use Avoka's platform to improve their digital sales experience.
- Received numerous awards for innovative customer experience solutions from Fintech Australia Finnie Awards and Fintech Business Awards.
- Raised $12 million to invest in security elements of its technology and hire more product developers, and sales and marketing staff.
- Founded in Sydney (Australia) and have since expanded its operations to Denver (USA) and London (UK).
- Releases an annual "State of Digital Sales in Banking" report that ranks and compares the digital account opening capabilities of 32 of the largest banks in North America, Europe and Australia.

METAMAKO

- Over 100 global customers use Metamako's hardware, including a UK-based FX market (FXexchange), and the Australian Securities Exchange who selected to employ Metamako's hardware in its new trading systems as it provides the most accurate and reliable network monitoring technology on the market.
- Founded in Sydney, and have since expanded its operations to London (UK), New York (US) and Tokyo (Japan).
- Received numerous awards for most disruptive and emerging Fintech in Australia and globally.

Importantly for our Fintech ecosystem Australia's major financial institutions have continued to embrace emerging technologies and are counted amongst the world's innovation leaders

CAN

- In December 2015, announced the acquisition of TYME.
- Established three Innovation Labs in Sydney, Hong Kong and London.
- Partnered with a number of Fintechs; notably with OnDeck which has been recognised as the "Best Fintech-Bank Collaboration" at the inaugural Australian Fintech Awards 2016.
- Various blockchain collaboration initiatives with global banks, including:
  - R3 CEV (consortium with 42 global banks, including Westpac and NAB) investigating how to employ blockchain technology in financial services (e.g. trading fixed income based on bitcoin technology);
  - with Barclays, developed a cross-border funds transfer platform enabling fast, streamlined, secure payments between Australia and the UK with just a mobile number; and
  - with Wells Fargo, conducted the world's first cross-border transaction using blockchain involving a $US35,000 cotton shipment to China from the US.

nab

- Established NAB Labs: an incubator to design new products, e.g. the QuickBiz Loan, Medipass (healthcare booking and payments solution) and Proquo (an online marketplace for small business).
- Launched NAB Ventures: a $A50m fund with a focus on connected business, home ownership, payments and wealth management startups; and have invested in Data Republic, Medipass, Veem, Wave and Basiq to date.
- Entered into a number of partnerships, including with Xero, REA, Visa and Telstra.
- Formed an alliance with:
  - Melbourne Business School to share talent, insights and research initiatives.
  - Israel's Bank Leumi and the Canadian Imperial Bank of Commerce (CIBC) to share technology innovations, knowledge and solutions; including blockchain initiative with CIBC to trial international payment transfers using Ripple technology.
- Launched new travel tools functionality into its mobile banking app; the tools were a collaboration with Visa and CIBC.

Westpac

- Established "The Garage" in Sydney – an innovation centre that responds to and anticipates changing market and customer needs.
- Through its investment arm, Reinventure, Westpac has committed $100m to new disruptive ventures and has invested in 16 Australian Fintechs (e.g. SocietyOne, Data Republic, Assembly Payments).
- Collaborations with Fintechs, including investing $A21.5m in Uno Home Loans with a view to collaborate on online mortgage technologies, and partnered with Prospa to provide online access to small unsecured business loans.
- Westpac also invested in Australian cyber-security firm, Quintessence Labs.
- One of the founding corporate partners of Fintech hub, Stone & Chalk.
- Various blockchain collaboration initiatives with global banks, including:
- Invested in R3 CEV (along with CBA); and
- participated in a pilot using Ripple technology that moves money between Australia and New Zealand.

ANZ

- Established Innovations Labs in Sydney (as co-investment with IBM) and Singapore ('ANZ BlueSpace').
- Supports the Fintech ecosystem through various partnerships, including co-working spaces (Stone & Chalk and York Butter Factory), local Fintechs (Honcho) and global Fintechs (Invapay).
- Partnered with Apple to develop contactless payments and digital wallets.
- Various blockchain collaboration initiatives with global banks, including:
  - with Wells Fargo, built a shared distributed ledger platform to test correspondent banking for cross border transactions; and
  - with Linux Foundation, developed an open-source enterprise-grade blockchain framework for the finance industry.

Importantly for our Fintech ecosystem Australia's major financial institutions have continued to embrace emerging technologies and are counted amongst the world's innovation leaders

MACQUARIE

- Recently announced the launch of Macquarie Open Platform – a new service to provide customers with more control over their data and the ability to securely share their banking information with other platforms and service providers.
- Recently announced the trial of DEFT Auction Pay – a new service that allows buyers to pay their deposit electronically at property auctions, while also giving real estate agents a secure online service to increase business efficiency; wider launch expected in second half of 2017.
- Built a highly personalised and intuitive new digital banking offering with features that are the first of their kind in Australia, including search-how-you-speak technology, tag and track transactions, upload receipts and warranties, set saving and spending goals, and automatic categorisation of spending through machine learning technology.
- Became one of the first financial institutions in Australia to launch Android Pay, and has also since launched Apple Pay.
- Collaborated with four commercial broking firms to launch a first to market technology platform to provide a cloud-based business loans origination platform for brokers, "Kubio".
- Collaborated with Xero and Tyro to provide in-product integrations for BPAY via the DEFT platform.
- Entered into a £40 million warehouse financing deal with LendInvest, a UK based online platform for financing short-term mortgages.
- Entered into a portfolio financing deal with MoneyLion, a US based mobile personal finance platform.

Key industry participants like the ASX are also embracing Fintech and world leading in developing a solution based on blockchain technology to potentially replace CHESS

- CHESS (the Clearing House Electronic Subregister System) was a world-leading core system that perform the processes of clearing, settlement and asset registration that led to the development of a proprietary electronic messaging standard.
- Whilst CHESS continues to be stable and effective at delivering these services, ASX has been considering options to replace CHESS with more contemporary technology that will provide a broader range of benefits to a wider cross section of the market.
- A distributed ledger technology (DLT, also known as blockchain) software company, Digital Assets Holdings LLC, has been selected to develop, test and prototype a solution to be designed and tested with market consultation. The solution will need to meet ASX's requirements of scalability, security and performance.
- Market consultation indicated that "respondents were generally supportive of ASX investigating DLT as a potential replacement technology for CHESS. However, there was widespread interest expressed by respondents in being provided with more information about DLT, including how it works and what its potential application to post trade processing might enable" (ASX) (source: AFR 6th March 2017).
- Next steps leading to a final decision to commit to DLT or alternative technology include deep engagement with clearing and settlement participants, further engagement with other users such as listed companies, investors and peak representative bodies, formation of six specific user working groups, ongoing demonstrations of the DLT prototype, and further formal public consultation.

Circa 1990s: CHESS developed by ASX

2015: ASX commences evaluation process to replace CHESS

Jan 2016: Digital Asset Holdings LLC is selected to develop, test and prototype a DLT solution

Sept 2016: ASX releases market consultation paper

Oct 2016: 36 submissions from the market received in response to the consultation paper

Dec 2016: Supplementary Business Requirements questionnaire released

Feb 2017: Responses to questionnaire received

Mar 2017: ASX releases its response to the submissions

End of 2017: Key decision point: Commitment to implement DLT or alternative technology

Post 2017: Following a positive decision at the end of 2017, implementation of DLT or alternative technology

Aug 2016 to Dec 2016: 50 demonstrations and workshops with stakeholders on the DLT prototype ("acceler8") and conceptual architecture to showcase DLT's capabilities.

Development of major infrastructure to support Fintech innovation will be further enhanced with the imminent release of the New Payments Platform in Australia

- The New Payments Platform (NPP) is a new national, open access infrastructure for fast payments in Australia. It provides consumers, businesses and government departments with a secure and efficient platform which they can use to make fast, versatile and data-rich payments to meet the evolving needs of a 24/7 digital economy.
- It was developed in collaboration with 13 key industry players (including Reserve Bank of Australia, ANZ, CBA, NAB, Westpac, Cuscal and ING Direct). The design of the NPP consists of three components:
  - Basic Infrastructure: this will be enable transaction accounts to be identified by a smart payment (the 'Addressing Service', e.g. email address, mobile number, or ABN) in a matter of seconds, 24 hours a day, 365 days of the year.
  - Fast Settlement Service (FSS): Provided by the Reserve Bank of Australia, this capability will enable every single payment to be made on the NPP, regardless of size, to be settled in real time in central bank funds, across each financial institution's Exchange Settlement Account (ESA); effectively, allowing completion of settlement between financial institutions prior to crediting the payee's bank account.
  - Overlay Services: This refers to payments-related products or service that use the Basic Infrastructure. The first Overlay Service to go live on the NPP will be offered by BPAY.
- The possibilities of the kinds of products and services that could be offered as Overlay services are endless. As the NPP offers speedier, more convenient and richer data information to be transferred along with a payment (thereby solving customer pain points such as efficiency, improved customer service and reducing costs), it is likely that there will be emerging innovations around business applications in the funds management, stock exchange, insurance and superannuation industries – further driving the growth of the Fintech sector in Australia.

2012:
Reserve Bank of Australia releases "Conclusions of the Strategic Review of innovation in the Payments System" for industry comment

2012:
This was followed by the development of "Core Criteria" which expands on the initial strategic objectives set out in the report

2012:
In response to the report, an industry committee proposed a new purpose built payments infrastructure be developed

Feb 2013:
Payments Systems Board welcomed the proposal as making substantial initial progress towards achieving the strategic objectives

2014:
13 Authorised Deposit-taking Institutions committed to funding the build and operations of the NPP and became the founding members of NPP Australia Limited

2015:
Build and internal testing of the configuration and construction of the core elements of the NPP

2016:
Industry testing of all components of the NPP

Late 2017:
The NPP is expected to launch in Q4 2017

Major Australian insurance companies in response to potential disruption are exploring new strategies, initiatives and technology innovations with Insurtech emerging as a key global focus for Fintech

iag

- Established an insurtech hub, Firemark Labs, in Singapore to connect with, and contribute to, a thriving entrepreneurial community in a global technology hotspot.
- Soon-to-be launched Sydney-based insurtech incubator, also called Firemark Labs, will focus on co-creating new insurance products and services. The incubator will have a central role in bringing the 'outside in' to IAG to help strengthen its core proposition.
- This activity is supported by IAG's $75 million new ventures fund which has been set up to invest in, and partner with, both start-ups and established businesses that have the potential to disrupt the value chain.
- Underpinning IAG's customer focus is its Customer Labs division which is responsible for the customer experience strategy and driving product, pricing and digital innovation through data and insights, brand architecture and new business incubations and venturing. Through a customer-led and data-driven approach to innovation, IAG has delivered a number of 'insurance firsts' to market, including:
  - ShareCover: a pay-per-night insurance cover for common risks associated with renting a home or room out via platforms like Airbnb and Stayz; and
  - Insurance 4 That: alternative to home and contents insurance, offering affordable, single item insurance for just the gadgets or valuables the customer chooses to protect.

AMP

- Established a venture capital unit ('AMP New Ventures') and invested in 3 start-ups (Macrovue, MoneyBrilliant and Employment Hero); however, in early 2017, following a strategic review, AMP closed this unit.
- Prior to the closure of AMP New Ventures, it bought out the remaining equity stakes in MoneyBrillant as a complete acquisition.
- Corporate partner of Fintech hub, Stone & Chalk (former).
- Undertook a $US500m customer transformation program focusing on intelligent robotic process automation (RPA), emerging innovations from Fintechs, and technological advances in cybersecurity.

TAL

- Introduced digital offerings to streamline life insurance product applications, including 'Click to Chat' which provides members to directly message TAL during the underwriting process.
- Partnered with Jade Software to create new and innovative life insurance software for customer facing applications.
- Corporate partner of Fintech hub, Stone & Chalk.
- Developed capabilities by introducing new and comprehensive platforms that enable members to access and manage their superfund insurance.

SUNCORP

- Collaborated with Traity to develop a P2P micro-insurance platform using 'Kevin' (Traity's chatbot).
- Introduced fingerprint login option to its iOS mobile banking application.
- Corporate partner of Fintech hub, Stone & Chalk.
- Invested $US5m in Trov Protection and collaborated with Trov to develop a platform providing access to insurance for single items (e.g. computers, cameras).

To remain competitive with the major banks and keep pace with emerging innovations, mutual banks have sought to overhaul and future-proof their systems and strategies including engagement with Fintech

CUA – Life rich banking

- Invested $A60m in upgrading IT systems to be competitive with the big four banks in the retail banking space, as well as a further $A20m+ on loan origination and mobile banking
- Supports the Fintech ecosystem by being a corporate partner of Stone & Chalk, as well as River City Labs where resident start-ups pitch to CUA's digital team every quarter.
- Partnered with a number of Fintechs, including Cloudcase and Spriggy.
- Created in-house accelerator within its organisation to explore new ideas and create a culture of innovation.
- Participated in KPMG's mutual bank accelerator program (mLabs) with 6 other mutual banks connecting them with emerging Fintechs designed to develop collaborative digital solutions.

Beyond Bank Australia

- With DXC Eclipse, deployed entire Microsoft Stack as a comprehensive cloud-based IT solution to transform its operations and customer interactions.
- Partnered with Glory Global Solutions to develop a teller-assisted service solution ('Gloria') that connects with the bank's core system to allow customers to do many of the transactions typically undertaken by a teller.
- Partnered and invested in SocietyOne demonstrating and increasing its commitment to personal loan funding.
- Participated in KPMG's mutual bank accelerator program (mLabs).

Teachers Mutual Bank

- Deployed Qlik's data analytics solutions to transform its internal processes, improve reporting times and deliver a more comprehensive view of business operations to Executive and Senior Management, facilitating faster and more informed decisions.
- Delivered an Enterprise Data Warehouse capability fully populated with clean data from TMBL's core banking platform, integrated new external data sources for targeted marketing campaigns.
- Restructured its IT operations division to reskill its workers for new technologies that will better align to the needs of the bank and set up for the future.
- Participated in KPMG's mutual bank accelerator program (mLabs)

Heritage Bank

- Launched a new and improved version of their internet banking platform (Heritage Online) to improve customer experience in terms of functionality (e.g. UX and compatibility with mobile devices) and security.
- Developed a new mobile banking application with functionalities such as fingerprint login option on its mobile banking services and temporary locks on credit/debit cards.
- Partnered with Inamo to launch a new waterproof, wearable device for tap-and-go payments ('CURL').
- Participated in KPMG's mutual bank accelerator program (mLabs).

However whilst significant activity has taken place in Sydney and Australia our global competition has not stood still with key cities in the US, UK and Asia continuing to build their own ecosystems

CITY	GOVERNMENT POLICY & REGULATORY FRAMEWORK	PRIVATE VC FUNDING	SKILLS/TALENT	BUSINESS ENVIRONMENT & START-UP ECOSYSTEM
Silicon Valley 	• Great strides have been undertaken to address the constantly changing financial services regulatory landscape driven by the growth of Fintech by the Office of Comptroller of the Currency (OCC), Consumer Financial Protection Bureau (CFPB), and US Treasury Department.	• Silicon Valley has a third of all venture capital in the US. • However, in 2016, there was a 28% decline in venture capital funding, with 21% decrease in deal volumes. • Start-ups with both financial and social benefits are currently capturing the attention of investors ('impact investment').	• In 2016, Silicon Valley had a Fintech pool of 74,000 people (compared to 61,000 in the UK). • However, the revision of the H-1B visa program poses a threat to Silicon Valley's talent pool.	• There are over 100 co-working spaces, multiple incubators, investors and ample infrastructure to support Fintech start-ups in Silicon Valley. • Silicon Valley conducts many beginner start-up events, such as, '106 Miles', 'Creative Coffee San Francisco', 'Got start-up?', 'Latino start-up Alliance'.

CITY	GOVERNMENT POLICY & REGULATORY FRAMEWORK	PRIVATE VC FUNDING	SKILLS/TALENT	BUSINESS ENVIRONMENT & START-UP ECOSYSTEM
New York 	• New York State supports and encourages business growth with a variety of funds and grants (e.g. Innovation NY Fund Program, Global NY Fund Grant Program), tax incentives (e.g. START-UP NY, NY Employment Zone Program), and visa programs (IN2NYC).	• In 2016, 35 NY Fintech companies raised $US459m. • The average early stage funding per start-up in New York was valued at $US568,000, while the global average was at $US252,000	• In 2016, NYU Stern School of Business announced the expansion of its MBA curriculum to prepare students for future jobs in Fintech as the finance industry faces one of the most significant disruptions in its history. The MBA program will allow students to choose Fintech as a specialization. • However, the revision of the H-1B visa program poses a threat to NY's talent pool.	• The presence of NYSE and NASDAQ fosters a citywide ecosystem for financial innovation in markets and commerce and inspires technologists to create products for financial markets. • "New York City has the largest concentration of financial resources along with high quality talent in a city of over eight million people" – Rubicon Ventures.

CITY	GOVERNMENT POLICY & REGULATORY FRAMEWORK	PRIVATE VC FUNDING	SKILLS/TALENT	BUSINESS ENVIRONMENT & START-UP ECOSYSTEM
London	• The UK government continues to provide support to the thriving Fintech sector through various financial incentives and policies. • The UK DIT has committed to providing £500,000 p.a. to Fintech specialists and introducing a network of regional Fintech envoys, in a bid to consolidate the UK's position as a leading Fintech player in the post-Brexit era.	• UK is a major investment destination for technology investments in Europe. • Venture capital investment in London-based tech firms increased from £1.36b in 2015 to £1.43b in 2016. • The government-backed London Coinvestment Fund (LCIF) addresses the funding gap for tech start-ups seeking seed investment.	• In May 2016, the UK was ranked as the largest Fintech hub in the world, generating revenue of £6.6 billion and employing 61,000 personnel. • However, the advent of Brexit has become an important issue as the Fintech industry relies heavily on skilled migrant labour.	• London has been ranked on the top in Z/Yen Global Financial Centers Index, despite exiting European Union. • London seeks to maintain its status quo as a lucrative business destination by introducing government schemes and encouraging banks to improve access to finance.

CITY	GOVERNMENT POLICY & REGULATORY FRAMEWORK	PRIVATE VC FUNDING	SKILLS/TALENT	BUSINESS ENVIRONMENT & START-UP ECOSYSTEM
Singapore	• The Monetary Authority of Singapore (MAS) and the National Research Foundation announced the establishment of a Fintech office in order to facilitate the development of Singapore as a Fintech hub. • MAS allocated a budget of SG$225 million to aid in the development of the Fintech ecosystem from 2016 to 2021. • Singapore has signed a number of cooperation agreements with overseas regulatory authorities in an effort to promote collaboration and innovation across jurisdictions.	• In Feb 2017, MAS announced plans to further ease regulations for venture capital investors assisting early–stage start-ups (e.g. reduce application time for receiving a VC license). • The government also provides generous funding mechanisms for start-ups.	• Singapore was ranked fourth in recruitment of talent in a global research project released by Economist Intelligence Unit (EIU) and ranked 15th in the world–talent ranking by Swiss business school IMD. • Various organisations across the financial services and Fintech and start-up communities have supported industry-specific partnerships and education programs (e.g. via Byte Academy).	• In 2016, Singapore was ranked 10th in a Compass report ranking start-up ecosystems. • Singapore created a Financial Sector Technology & Innovation (FSTI) scheme for the creation of a comprehensive ecosystem for innovation. The FTSI promotes experimentation, and accelerates the development of nascent innovative technologies in the financial services

However whilst significant activity has taken place in Sydney and Australia our global competition has not stood still with key cities in the US, UK and Asia continuing to build their own ecosystems

CITY	GOVERNMENT POLICY & REGULATORY FRAMEWORK	PRIVATE VC FUNDING	SKILLS/TALENT	BUSINESS ENVIRONMENT & START-UP ECOSYSTEM
Hong Kong 	• The Hong Kong government has been active in establishing multiple initiatives to develop its Fintech ecosystem and promote the country as a Fintech hub in Asia (e.g. HKMA's Fintech Facilitation Office and Fintech Supervisory Sandbox, SFC's Fintech Contact Point and Fintech Advisory Group, Cyberport's Smart-Space Fintech).	• A number of accelerators are present that assist with funding, including Standard Chartered Bank's SuperCharger, the DBS Accelerator, and the AIA Accelerator.	• Hong Kong is recognized as a major financial hub in South East Asia and offers flexible visa policies to attract talent. • To cater to the growing demand for talent and maintain its position as a global Fintech hub, local regulatory authorities, banks and universities have rolled out initiatives to develop talent (e.g. FCAS, SuperCharger, Fintech Undergraduate program).	• Hong Kong has a free-enterprise, free-trade economy, where it takes approximately 1.5 days to start a business. • In Jan 2017, the government announced the National 13th Five-Year Plan and the Belt and Road Initiative which generates new opportunities in financial and professional services and innovation and technology.

CITY	GOVERNMENT POLICY & REGULATORY FRAMEWORK	PRIVATE VC FUNDING	SKILLS/TALENT	BUSINESS ENVIRONMENT & START-UP ECOSYSTEM
Shanghai 	• China's regulatory regime is positioned to be supportive of entrepreneurs and to encourage sector growth through numerous government and regulatory initiatives that support international and local entrepreneurs, investors and the financial services sector. • Shanghai seeks to be a leader in blockchain technology, which is supported through the Chinese Government's national 5 year plan.	• In June 2015, the Chinese government announced a $US6.5b seed-stage venture capital fund, which includes investments from the private sector. • In January 2017, a consortium of Chinese state-owned companies and private enterprises created a $US1.44b investment fund for Fintech mergers and acquisitions. • A number of policy measures have been adopted to encourage international investors to invest in start-ups in Shanghai.	• The average education level in Shanghai is higher than the rest of China; however, when compared to Hong Kong, Shanghai lacks a significant pool of financial sector and tech professionals. • However, the government has recently introduced a number of initiatives to attract foreign talent.	• Shanghai is the epicentre for the financial services sector in China, and is designated as a national innovation demonstration zone. • In the 2017 KPMG Global Technology Innovation report, Shanghai scored as the number 1 emerging new tech hub in the world. • In 2016, more than 70,000 start-ups set up in Shanghai, a growth of 20 percent from the previous year.

INTERNATIONAL CITIES FINTECH PROMOTION ACTIVITIES

London

The London Fintech Week, had its fourth annual event in July 2017 and is a series of conferences, exhibitions, workshops, hackathons, meetups and social events, with around 3,000 to 5,000 individuals participating from across 50 different countries.

The event aims to enhance collaboration across the global Fintech landscape with a view to enhance dialogue between large multi-national corporations, innovation firms, disruptive start-ups, governments and investors.

The various events are hosted across a number of locations across the city of London.

Hong Kong

The first Hong Kong Fintech Week, hosted by InvestHK, was held between 7 and 11 November 2016 and attracted more than 2,500 participants as well as a number of Fintech companies, start-ups, incubators and investors.

The event was supported by a number of government agencies, including the Securities and Futures Commission (SFC) and the Hong Kong Monetary Authority (HKMA), as well as organisations from the financial services sector, including NexChange and the Finovate Group.

With a mix of local and international firms actively participating in the event, it witnessed more than 100 Fintech experts share their insights and opinions on Fintech.

Singapore

The first edition of the Singapore Fintech Festival took place in November 2016 and was hosted by the Monetary Authority of Singapore (MAS) in partnership with the Association of Banks in Singapore (ABS).

The week-long festival provides a platform for collaborations, connections and co-creations within the Fintech ecosystem in Singapore and around the region.

The festival also included the MAS Fintech Awards, which recognizes innovative Fintech solutions that have been implemented by start-ups, financial institutions, and technology companies.

FUTURE OPPORTUNITIES & CHALLENGES

Our research has identified a number of emergent opportunity areas for Fintech...

INNOVATION AROUND EVOLVING CUSTOMER EXPECTATIONS

- As customers are increasingly demanding more, keeping up with expectations and retaining relevance presents as both an opportunity and a challenge
- Firms will need to break away from traditional banking methods and instead, create engaging and unique customer experiences, such as an integrated end-to-end property app for buying a home, receiving a loan and managing a mortgage
- An entrepreneur starting a tech company will have different needs to an established business owner. Serving the various needs of retail customers presents another opportunity for financial institutions to create tailored products for the different segments
- With the complex language, regulation and processes in banking, insurance and superannuation, financial technology could provide solutions to customers to help them understand policies and to engage with different products

CONTINUED GROWTH IN CUSTOMER DIGITAL ADOPTION

- Digital adoption by customers continues to grow, providing an opportunity for firms to create more services and improve customer engagement through mobile devices, AI and robotic process automation (RPA)
- However, the level of digital adoption is not as high within the older population and is tempered by Gen Y's general reluctance to digitally engage with larger transactions, such as applying for mortgages online
- Further, with increased digital adoption, cyber security will become of paramount importance to increase consumer awareness and confidence in digital products

FURTHER INDUSTRY COLLABORATION

- Industry collaboration should continue, including leveraging partnerships with start-ups and collaboration across industries
- Fintech can reduce the costs of services and improve the quality of the customer experience. Rather than developing technology in-house, incumbents (with their implicit established advantage of holding customer trust) could partner with start-ups to create synergies

LARGE SUPERANNUATION POOL

- Australia's capital structure and pool of superannuation funds, one of the largest in the world, presents opportunities in wealth tech (e.g. robo-digital) and provides an existing advantage and leadership potential in attracting international Fintechs
- Superannuation is an arbitrary product designed to disperse risk. Due to it being a relatively untapped market, there is an opportunity to engage with customers, create individualised experiences and to provide cost effective advice
- Super funds could become an important source of capital to Fintech start-ups (currently, most super funds do not invest in risky tech, especially compared to the US)

COMPETITIVENESS IN ASIAN MARKET

- Asia has high levels of unbanked populations and a need for financial inclusion, creating opportunities in micro-lending, pension schemes and non-bank financing
- Australia should aim to increase its competitiveness in order to capitalise on the Asian market

...at the same time there are a number of key challenges to be addressed for the sector to truly flourish

THREAT FROM INTERNATIONAL TECH GIANTS (ALIPAY, GOOGLE, APPLE, AMAZON) AND DISRUPTIVE START-UPS (UBER, AIRBNB)

- Competition in financial services is increasingly coming from global platform companies or technology giants
- These companies have lower barriers to entry and infrastructure costs and they are less concerned with different elements of the value chain
- Their repositories of consumer and retailer data are deep and they have strong and exportable technological capabilities
- However, these companies are unlikely to invest in infrastructure, data retrieval will become an issue, and if they begin to dominate, the result would be a significant impact on industry and a potential economic loss to Australia

REGULATORY CHALLENGES

- The high levels of regulation in Australia are in place to reduce failure rates of institutions. However, the negative effects of trying to avoid systemic risks by burdening banks with substantial capital requirements and strict regulations are particularly manifest in a Fintech context.
- The significant and growing volume of policy and regulatory requirements are stifling innovation as there is no capacity for firms to engage with innovative processes and to take risks
- The strict regulations can also create adverse effects. For instance, due to the difficulty of obtaining banking licences, new companies may try to partner with those that already have licences: this is not necessarily a favourable commercial outcome
- If the regulatory environment allowed for failure to occur (up to an acceptable level), this could become a competitive advantage
- New regulation can also be an opportunity as it drives some level of innovation to factor in cost/benefit trade-offs and design solutions to enable easy access for regulators

UNEVEN PLAYING FIELD BETWEEN START-UPS, TECH GIANTS AND INCUMBENTS

- Start-ups and some tech giants are not subject to the same regulations and capital requirements as larger financial institutions
- They also do not have the same establishment and overhead costs as incumbents or the reputational risks associated with innovation
- Conversely, as the industry structure in Australia is dominated by a relatively small number of established financial institutions, it is often difficult for start-ups to access funds and data to enter the industry.
- The long and complex reporting requirements also adversely affect Fintechs as they do not normally have the resources and range of expertise to satisfy or understand requirements
- The uneven playing field, as a result of policy and regulation, extends to preventing general insurers from accessing tax concessions available to super funds and banks
- In order to create a level playing field, competition and new policies should be reframed. For instance, shared data could improve accessibility for start-ups and compensate incumbents, who bear reputational risks around APIs

TALENT ATTRACTION

- Access to talent and talent retention, ranging from entrepreneurs to product developers, is proving to be an increasing challenge, for both Fintech start-ups, companies and established institutions
- There is concern that the current ecosystem does not have the right culture to foster innovation and attract talent and that not enough students are interested in technology-related degrees

FRICTION IN BANKING

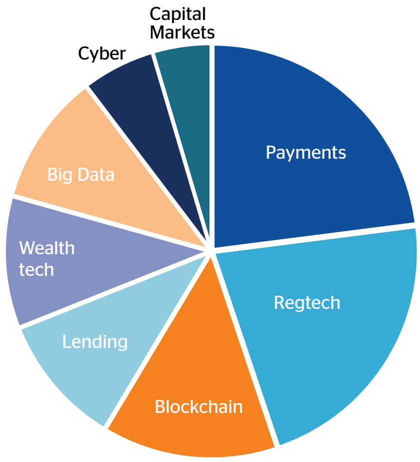
- There are high levels of friction in account switching due to the absence of a functional digital identity initiative. This could be improved by regulatory intervention with KYC or open data mandates

STAKEHOLDER CONSULTATION

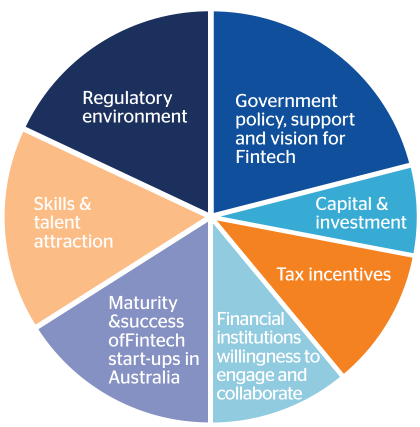
Industry leaders see a number of key opportunity areas for Fintech in Australia, opportunity to lead in Asia and government policy, support and vision as key to growth

- As well as speaking with industry leaders from financial services, government, investors, industry bodies and emergent ventures we surveyed all on three key areas.
- The first being on what sectors did they see potential for Australia to be global leaders in. With the investment in world leading infrastructure such as the New Payments Platform 23% of respondents identified payments as a key focus area for innovation; this was closely followed by Regtech with Blockchain coming in third. Surprisingly, Wealthtech did not rate in the top 3 despite our large superannuation pools.
- Closely related to this question is where do we need to focus to accelerate and drive Fintech growth in Australia. Here respondents focussed on the role of government policy support and vision with 21% identifying this as the most important focus area.
- The regulatory environment (18%) was also seen as a key area of focus and in part this reflects the potential opportunity in Regtech. The qualitative interviews reflected a view that there is generally good availability of capital and investment for Fintech and this is reflected in the survey results with capital and investment ranking lowest in terms of areas to focus on.
- In terms of leading global centres for Fintech, unsurprisingly London, Silicon Valley and New York were the top three. Outside of these centres, here in Asia, Sydney ranked between Singapore and Hong Kong with 7% of respondents identifying Sydney as a Fintech leader. The implication of this is that, whilst Sydney is not seen as a global top three within the Asian region, we are seen as credible and could potentially challenge Singapore.
- These survey findings give an indication of where opportunity lies for Australia to be world leading and the steps we need to take if we want to compete on a global level in Fintech.

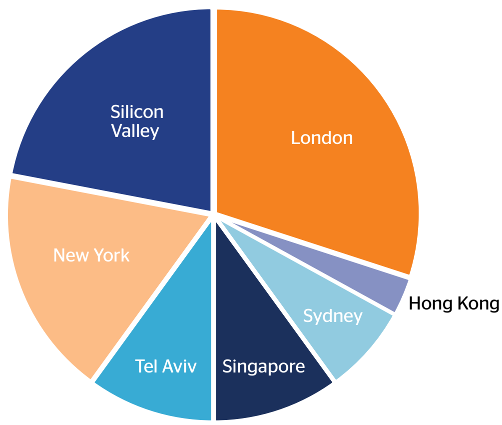
Potential Fintech sector for Australian to lead



Areas requiring attention for future Fintech growth



Leading Global Fintech centres



FINANCIAL INSTITUTIONS PERSPECTIVES

CHALLENGES

"There is no clear guidance on cloud, digital verification and other digital technology uses"

"It is easy to overestimate digital adoption when working in the corporate sector"

"There is a macro issue here: if all enterprise is dominated by a small number of globals then Australia will be a very poor nation"

"We need more clarity around future areas of regulation rather than after-the-fact regulatory responses"

"Barriers to entry are lowering and the value chain is unbundling"

"Given the strength of our super sector, we should be doing Wealthtech better but there is no evidence that we are"

OPPORTUNITIES

"Having a deep understanding of customer needs is essential"

"Retaining relevance and creating unique customer experiences is an opportunity in this sector"

"Large institutions collaborating with Fintechs helps with talent attraction and retention"

"We need to get the right culture to foster innovation and attract talent"

"Regulatory settings need to be equal for all players- the sandbox should be available to incumbents"

"The NPP is a good example of collaboration- this should be emulated with blockchain or AML"

FINTECH START-UP AND INVESTOR COMMUNITY PERSPECTIVES

CHALLENGES

"Competition is increasingly coming from global platforms, creating a loss to home grown services and an economic loss to Australia"

"In Australia, there is a lack of skill and capability in STEM- a lot of international students are coming in to fill this gap"

"The government should simplify legislation- it is currently so confusing that no one knows how to use it"

"We need access to talent; from entrepreneur to developer"

"Crossing borders is a huge barrier to Fintech growth and access to capital "

"The lack of a functional digital identity layer creates too much friction in switching banks"

OPPORTUNITIES

"Super profits are being made and this has the potential to change service and tech propositions"

"Start-ups need an export mindset from the start so they work harder and better than anyone else in the world"

"Given what is happening in terms of policy, levelling the playing field with data availability is important"

"With Trump's new immigration policies, a lot of specialists will have to leave the US- the Australian government should follow what Canada and New Zealand are doing and target this talent"

"Sydney is one of the most liveable cities in the world- we should promote this to attract talent"

"Government and regulatory intervention will be needed to create an open-data regime"

REGULATOR PERSPECTIVES

CHALLENGES

"'Investment in risk management is not commensurate to investment in tech"

"There should be more clarity around ownership- VC's say this is their biggest issue"

"Current tax incentives are not enough- we need to match tax settings in other countries to remain competitive"

"Digital identify and data are critical enablers but there has not been a collaborative flagship effort between the public and private sector in these areas"

"How to engage with unconventional financial entities is the biggest issue facing regulators at the moment"

"Large institutions are huge adopters of tech but with this comes cyber risks"

OPPORTUNITIES

"The government needs to be less risk averse and enable companies to experiment"

"The process of KYC should be centralised and deployed in a similar way to the NPP"

"Perhaps regulation needs to apply to 'services' instead of 'legal entities' so that regulators have powers across a number of different legal vehicle entities"

"A greater level of coordination is needed between state and federal authorities"

"All of the key public policy issues will affect/relate to millennials"

"Regulators need more guidance from the government"

OTHER STAKEHOLDER PERSPECTIVES

CHALLENGES

"Avoiding systemic risk by burdening banks with huge capital requirements is creating negative effects"

"There is a lack of alignment between government and regulators"

"Open API and open data could also bring negative effects, such as privacy issues concerning the amount of information that is publicly available"

"Australia should be more focused on interoperability between systems rather than creating standards"

"We need to be careful not to create a climate for collaboration without law"

"Singapore has a much clearer commercial and political focus"

OPPORTUNITIES

"Australia's capital structure and large pool of superannuation funds presents a massive opportunity"

"Leveraging partnerships should also be done across industries"

"AML is an opportunity for collaboration"

"NPP is an example of an industry-led initiative that has potential for the future development of Fintechs in Australia"

"Industry and government should be working with, and supporting, universities- Hong Kong and Singapore do this well"

"Tax incentives for early stage funding are provided to well structured businesses- this filters in quality start-ups"

RECOMMENDATIONS

To further enhance and scale our Fintech ecosystem we have identified 10 core recommendations for both the private and public sector

ALIGNMENT

1 NSW Government to continue working with the Committee for Sydney and the private sector to refresh the existing NSW Government Financial Services Strategy, articulating a strong commitment to support and champion the growth of the Fintech sector, providing a focal point for the alignment of effort between the public and private sectors

PROMOTION

2 Foster greater alignment and coordination between and within Commonwealth and NSW Government agencies to actively promote Australia and Sydney as a leading global financial services centre, with a specific focus on Fintech and digital innovation

3 Provide continued promotion of and support for Fintech hubs, such as Stone & Chalk and Tyro Fintech Hub, assisting them to provide opportunities for cross-industry collaboration and Fintech community engagement

CAPABILITY DEVELOPMENT

4 Drive public and private sector collaboration efforts and investment to develop 'priority' areas of capability in Payments, Regtech and Blockchain, leveraging our world leading financial services infrastructure

5 Build meaningful international pathways for Australia's Fintech sector, helping to support the export of our leading Fintech capability offshore and to attract the best international Fintech companies to Sydney (Australia)

SKILLS AND EXPERIENCE

6 Develop Fintech skills and experiences (e.g. entrepreneurial, technology, etc.) in the local workforce and attract international talent to enhance the quality of ventures and support their ability to scale, as well as gain greater levels of capital (locally and globally)

POLICY AND REGULATORY SETTINGS

7 Facilitate active cross-industry engagement to support the Commonwealth Government to expedite policy frameworks in 'enabling' areas of capability, such as digital identity, open data and cyber-security

8 Engage policy makers and the regulatory community to improve the effectiveness of existing grants, incentives and regulatory settings, as well as introduce new measures to further enhance the Fintech sector's continued development

EDUCATION

9 Work with the regulatory community and private sector to create more effective mechanisms to educate consumers and businesses on digital financial services, helping to raise the awareness and understanding of new Fintech and/or digital financial products and services

10 Engage the university sector and leverage the capabilities of research institutes, such as Data61 to research key Fintech themes and explore business opportunities for commercialisation (supporting 'priority' and 'enabling' areas of capability)*

ALIGNMENT

1

NSW Government to continue working with the Committee for Sydney and the private sector to refresh the existing NSW Government Financial Services Strategy, articulating a strong commitment to support and champion the growth of the Fintech sector, providing a focal point for the alignment of effort between the public and private sectors

- Fintech is a fast-growing segment of the financial services industry in NSW and nationally. Therefore, it is important to consider policy decisions, investment activity and initiatives to promote the growth of Fintech in the context of developments in the broader financial services industry
- In order to scale the local Fintech eco-system, alignment between the public and private sector is required to fully maximize the benefits of investment activity and initiatives in Fintech
- Building on the existing NSW Sector Strategy for the Financial Services Industry, and leveraging the FS Knowledge Hub, it is recommended that the strategy be refreshed to continue to provide a focal point for the development of Fintech and to reinforce the State Government's commitment to the Fintech sector, as well as more visibly champion it
- This Strategy should also examine the impact of new technologies on the financial services industry and potential changes to the workforce, as well as explore the implications for policy and investment, as well as cross-industry collaboration initiative
- It is recommended that an annual event be held each year to inform and refine this Strategy, convening key stakeholders across the Fintech eco-system

PROMOTION

2

Foster greater alignment and coordination between and within Commonwealth and NSW Government agencies to actively promote Australia and Sydney as a leading global financial services centre, with a specific focus on Fintech and digital innovation

- Compared to other regional Fintech centres, such as Singapore and Hong Kong, it was frequently cited that the lack of alignment and coordination between agencies of both the Commonwealth and NSW Government (as well as other states) is an issue
- This misalignment is evident in Fintech start-ups misunderstanding the availability of and access mechanisms to programs that can support them to expand abroad, as well as in promoting the strengths of Australian Fintech to international start-ups, financial institutions and investors
- The high degree of digital adoption by Australian consumers is a point of positive differentiation for our local Fintech sector and is widely acknowledged
- However, the strong track record, significant scale of technology investment and digital innovation by our established financial institutions is not well understood locally and could be leveraged to attract international start-ups, talent and capital
- This is an increasingly important dimension of promoting Australia and NSW as an attractive destination for Fintech companies and investors, particularly in those categories of Fintech which are 'enablers' (seeking to provide capability to financial institutions)
- It is recommended that the NSW Government, work with Commonwealth and other states, as well as Fintech Australia, to facilitate greater alignment of programs, marketing and promotional efforts internationally.
- It is also recommended that NSW Government work with relevant industry associations to leverage SIBOS being held in Sydney in 2018 to showcase Australian payments and Fintech capabilities to the international community.

PROMOTION

3 **Provide continued promotion of and support for Fintech hubs, such as Stone & Chalk and Tyro Fintech Hub, assisting them to provide opportunities for cross-industry collaboration and Fintech community engagement**

- International Fintech hubs, such as Level39 (UK), Lattice80 (Singapore) and the Floor (Israel), as well as Stone & Chalk and Tyro Fintech Hub in Sydney, have played (and continue to play) a critical community-building role. They support Fintech start-ups and companies, as well as foster the development of the broader eco-system in their respective geographies
- Importantly, they also play a role in supporting the promotion of the city's/country's Fintech eco-system and capabilities, helping to attract talent and capital from international markets
- A unique point of differentiation for Sydney is the collaborative, cross-industry model of Stone & Chalk (with established financial institutions, Fintech start-ups, accelerators and investors/VCs interacting in a physical environment and across a range of programs)
- In order to support Sydney and Australia's aspiration to be a leading international Fintech centre, it is important that Fintech hubs, like Stone & Chalk, continue to be actively promoted and supported by all levels of Government, regulators and industry
- The NSW Government's (Jobs for NSW) recent announcement to create the Sydney Start-up Hub, which will be the location of Stone & Chalk's new Sydney location is a tangible example of valuable support
- Another example is using the hub and their entrepreneurs in the community to 'hack' specific problems/ opportunities for Government and local municipalities (in regional areas) where Fintech could be a key enabler

CAPABILITY DEVELOPMENT

4 **Drive public and private sector collaboration efforts and investment to develop 'priority' areas of capability in Payments, Regtech and Blockchain, leveraging our world leading financial services infrastructure**

- Through our stakeholder survey, Payments, Regtech and Blockchain were identified as the three areas of Fintech where Australia (and Sydney) has the potential to scale locally and to grow internationally through exporting capability. These areas are designated as 'priority' areas of capability for NSW Government support and investment as they offer benefits to domestic markets, as well as international export potential.
- Payments is the largest sub-sector of Fintech and leverages world-leading infrastructure in the form of the New Payments Platform. The NPP is expected to be a further catalyst for growth in Fintech, in particular attracting international Fintech companies to Australia.
- Blockchain is an emerging area of substantial potential for the Fintech sector and broader financial services industry. The ASX's world-leading efforts to explore distributed ledger's application in Australian capital markets also provides an opportunity to leverage this infrastructure to develop local blockchain capability and attract international Fintech companies to Australia, similar to Digital Asset Holdings.
- Regtech is another emerging area of Fintech. Given Australia's globally respected financial system and regulatory framework, it is an area that offers the potential to enhance the efficiency and stability of our local industry and export potential for Australian Fintech companies and established financial institutions (leveraging 'brand Australia').
- Given the Commonwealth Government and regulator support, as well as industry interest in Regtech, it is recommended that NSW Government facilitate private-public sector collaboration, including regulators, to explore the potential to develop a Regtech solution for a known industry issue. One common issue/ opportunity identified through the survey, was KYC/CTF requirements and how this could be more efficiently and effectively managed through the application of emerging technology capabilities, such as blockchain.

CAPABILITY DEVELOPMENT

5 **Build meaningful international pathways for Australia's Fintech sector, helping to support the export of our leading Fintech capability offshore and to attract the best international Fintech companies to Sydney (Australia)**

- Building on recommendation 3, the Commonwealth and NSW Governments are encouraged to develop an "International Pathways Program" to accelerate the development and scaling of local Fintech companies offshore. This program should be targeted at supporting established Fintech companies and would involve stream-lined support from all levels of Government, as well as regulators
- In addition, creating more global 'exchanges' (such as the NSW Government did last year to Israel with a number of Fintechs) would be valuable for Fintech companies seeking to scale offshore. The NSW Government should also provide $10k grants that Fintech start-ups can access to travel to international markets
- More broadly, it is also recommended that the NSW Government explore and establish more meaningful international bridges with other leading Fintech and financial services centres, such as Shanghai, London, etc. similar to the NSW-Shanghai MOU. China in particular, with a strong mobile payments environment, should be a focus given rec 2
- These bridges can serve as a means to help Australian Governments, regulators, financial institutions and Fintech start-ups to understand world-leading developments in international jurisdictions, as well as to foster opportunities for Australia's eco-system in offshore markets
- They will also provide a more deliberate and structured process for identifying and attracting the best international Fintech companies to Sydney

SKILLS AND EXPERIENCE

6 **Develop Fintech skills and experiences (e.g. entrepreneurial, technology, etc.) in the local workforce and attract international talent to enhance the quality of ventures and support their ability to scale, as well as gain greater levels of capital (locally and globally)**

- Australia has a highly regarded education system that produces a high quality talent pool, however it is not enough to satisfy the growing levels of demand in many employment and skills categories (e.g. software engineers, data scientists, cyber-security, etc.), which will limit the ability to scale the Fintech opportunity
- Building upon Sydney being widely regarded as one of the most liveable cities in the world and a highly attractive destination for skills migrants, the NSW Government should capitalise on this to attract top talent to address this short-term labour market shortfall. Sydney also stands to benefit from Brexit (UK) and Trump (US) policies
- Coupled with this, home grown talent should also be fostered over the medium-to-long-term. For example, greater encouragement and incentives for universities to work with Fintech start-ups (for instance, MBA graduates to intern in the Fintech community and are permitted to the credit time back to their MBA) should be facilitated by Government
- In order to attract international talent and experience to Australia, it is recommended that the NSW Government, working with Austrade, initiate a program to actively target and invite international Fintech start-ups to come to Australia or to set up regional offices in Sydney (to service the ASPAC market)
- Financial services leaders should look to build skills, capability and knowledge within their organisations to enable engagement with and development of Fintech. This would include developing an understanding not just of enabling technologies but new business building tools such as design thinking, lean start-up and agile
- Finally, it is important that collaboration to enable cross-skilling between established financial institutions and Fintech startups is encouraged - both have relatively different skills and work in different ways – hence, they need to be able to effectively interact, and would benefit from having some of the inherent skills of the other

POLICY AND REGULATORY SETTINGS

7 **Facilitate active cross-industry engagement to support the Commonwealth Government to expedite policy frameworks in 'enabling' areas of capability, such as digital identity, open data and cyber-security**

- A number of capability areas were identified during the stakeholder survey that were deemed as critical 'enablers' to foster greater levels of digital adoption in the financial services industry, balancing innovation, consumer safety and system resilience
- The three 'enabling capabilities' identified in our survey included digital identity, open data and cyber-security, and they are key to enabling better consumer outcomes. These are important enablers for the growth in the Fintech sector, the financial services industry, as well as the Australian economy more broadly
- Whilst the Commonwealth Government has the policy responsibility in these areas, NSW Government should actively facilitate areas of safe experimentation and trial/pilot adoption, collaborating with stakeholders in the Fintech eco-system, as well as established financial institutions. Through this, NSW Government can play a role in helping to improve both the quality and speed of policy decision-making (which has been relatively slow in a number of areas, e.g. Crowd-source equity funding)

POLICY AND REGULATORY SETTINGS

8 **Engage policy makers and the regulatory community to improve the effectiveness of existing grants, incentives and regulatory settings, as well as introduce new measures to further enhance the Fintech sector's continued development**

- Grants and incentives take time and investment to compete for and many respondents asked for greater clarity of eligibility and availability to help companies assess where to focus resources
- Recent developments in taxation settings contribute to a continued perception of an uneven playing field for incumbents with many incentives being aimed at emerging companies and existing incentives being wound back from larger organisations (e.g. R&D).
- A common area of feedback from respondents was the ability to measure the effectiveness of policy and regulatory measures, and where possible, create an ability to amend them more easily and quickly
- A number of areas were regularly suggested for consideration of policy-makers and regulators:
  - Clearer regulatory guidance on topics, such as digital verification, cloud computing, etc., to facilitate greater investment and activity from both FIs and fintech companies
  - Expanding access to the regulatory sandbox, making it available to established financial institutions (as is the case in the UK, HK, Singapore), as well as increasing access to categories of the industry, such as superannuation
  - Encouraging a more effective engagement and public support from APRA and the RBA of Fintech developments, e.g. bank licensing, digital currencies, etc.
  - Including AUSTRAC in the Council of Financial Regulators to allow for more effective engagement and coordination between agencies for Fintech start-ups and companies
  - Regulators seeking to experiment with and adopt Regtech solutions; this could be done through regulator sponsored hackathons, similar to what the FCA and MAS have done in the UK and Singapore respectively
  - Government as a procurer of services to provide greater access and opportunities for Fintech/tech companies to solicit for Government related work

EDUCATION

9 **Work with the regulatory community and private sector to create more effective mechanisms to educate consumers and businesses on digital financial services, helping to raise the awareness and understanding of new Fintech and/or digital financial products and services**

- Digital enablement, as well as being an efficient distribution mechanism, offers significant opportunities to enhance consumers access to, and service experience, of financial services (and the financial, social and economic benefits that accrue)
- With the rise of digital in traditional financial services, the Fintech sector and potentially, as non-traditional entrants enter the value chain, an increasing concern will be around consumer awareness, education and understanding of new Fintech and/or digital financial products and services. This may present a growing obstacle to adoption and increase the risk to consumers and businesses, which could result in reduced system efficiency and confidence.
- It is recommended that Governments (Commonwealth, States) and regulators, work with industry representatives (including the Fintech sector) and the relevant consumer/business groups, to promote improved education and awareness of digital financial products and services (e.g. access, use, benefits, risks, etc.)

EDUCATION

10 **Engage the university sector and leverage the capabilities of research institutes, such as Data61 to research key Fintech themes and explore business opportunities for commercialisation (supporting 'priority' and 'enabling' areas of capability)***

- Given the fast-moving nature of emerging Fintech and, technology developments more broadly, understanding the potential benefits and risks, from an economic, social and commercial perspective, are critical to obtain any form of competitive advantage, over other aspiring centres
- As such, it is recommended that greater collaboration between NSW Government, industry, Fintech start-ups, regulators and the university sector be addressed through co-funding for new research and commercialisation projects
- This research agenda should have an initial focus to support the 'priority' (Payments, Regtech, Blockchain) capability areas, as well as 'enabling' infrastructure (digital identity, open data and cyber-security)
- It is recommended that the NSW Government elect a representative group of stakeholders across the entire financial services and Fintech eco-system to form the creation of a Digital Financial Services Research and Commercialisation Taskforce, as well as commit funding to support new research projects

SUPPORTING RESEARCH

SYDNEY

GOVERNMENT POLICY AND REGULATORY FRAMEWORK (1)

Government Policy

- The Australian government provides opportunities in Fintech for the digital transformation of services. The government plans to provide all major services and interactions online, thus making the government more accessible and efficient. Under the Digital Transformation Agenda (DTA), the 2015-16 budget included a measure to provide $254.7 million over four years to support the initial implementation of the Digital Transformation Agenda (DTA) to drive innovation and make it easier for individuals and businesses to access government services.
  - The DTA is expected to help enhance digital identity processes to improve efficiency and security across the digital economy.
  - The Australian Tax Office (ATO) has also rapidly increased its online presence, increasingly interacting directly with taxpayers through its MyTax portal.
  - Several government agencies concerned with financial regulation (including Australian Transaction Reports and Analysis Centre (AUSTRAC), Australian Prudential Regulation Authority (APRA) and Australian Securities and Investments Commission (ASIC)) have a joint task force to look at emerging Fintech and ways to facilitate access to Australia's markets while maintaining security and integrity.
- **Regulator cooperation:** ASIC has signed several cooperation agreements with international regulators (e.g. FCA, HKMA, JFSA, MAS) to share information on emerging market trends and their impact on regulation and support the entry of innovative fintech businesses into each other's markets
- **Reducing barriers for new banks:** The government and Australian Prudential Regulation Authority (APRA) are reducing barriers for innovative new entrants into the banking sector by addressing significant obstacles that currently exist:
  - the limitation on closely-held ownership in the *Financial Sector (Shareholdings) Act 1998* (FSSA) by relaxing the legislative 15 per cent ownership cap for innovative new entrants;
  - the prohibition on the use of the word 'bank' by certain authorised deposit-taking institutions (ADIs) by lifting this prohibition for ADIs with less than $50 million in capital; and
  - burdensome bank licensing processes through a phased approach (undertaken in conjunction with APRA).

Regulatory Framework

- In **March 2017**, ASIC launched a regulatory sandbox that allows eligible Fintech businesses to test certain services for up to 12 months without an Australian Financial Services Licence (AFSL) or Australian Credit Licence.
- In **March 2016**, ASIC established a Digital Finance Advisory Committee which included a cross-section of the Fintech community to help inform how it can better focus efforts in this sector.
- In **March 2016**, ASIC also released a consultation paper and a draft regulatory guide on regulating digital financial product advice (robo-advice).
- Formed in December 2014, The **New Payment Platform (NPP)** is an open access payment infrastructure for the Australian economy providing secure, efficient and easy real-time payment options. The NPP is a mutual organisation, owned by participating financial institutions.
- In **August 2015**, the Knowledge Hub supported the launch of Stone & Chalk (S&C), a not-for-profit Fintech hub that fosters and accelerates the development of start-ups by co-locating venture capital, technology start-ups and established financial services firms.The Federal Government provided $150,000 for S&C's Fintech Asia program which aims to:
  - promote Australia as a global entrepreneurial hub and a leader in Fintech in the Asia Pacific region;
  - develop engagement and interest within the Asian Fintech market, and foster collaboration and knowledge sharing; and
  - accelerate the acquisition of international talent and ideas into Australia.
- The government has also hosted a series of Fintech roundtables held in Shanghai and Hong Kong.
- Online portal: In the budget for 2015, the government announced that it would assist in funding a central online portal for company registration as well as ASIC's regulatory plans for facilitating crowd-sourced equity funding as part of its small business package.
- In 2015, ASIC published its Corporate Plan 2015–16 to 2018–19. In response to financial innovation, the regulator will take action to improve financial literacy and will continue to monitor the financial markets in real time. It will also provide policy advice to the government on the implementation of certain laws and reforms arising from the FSIR.

GOVERNMENT POLICY AND REGULATORY FRAMEWORK (2)

Government Policy

- **Blockchain technology:** The ASX is exploring Blockchain technology for a new post-trade solution in the country's equity market.
- **Domestic non-AUD settlements:** With an aim to help the payment Fintech firms, the Australian Government is working toward facilitating cost-effective access to non-AUD settlement infrastructure for Fintech start-ups. It hopes to provide better opportunities for the Fintech domain and better outcomes for consumers.
- **Digital currencies:** The government is committed to resolving the issue of double taxation in cases of digital currencies, which impacts a number of Fintech companies. As per the 2017 Budget, the government will make it easier for new innovative digital currency businesses to operate in Australia. From 1 July 2017, purchases of digital currency will no longer to subject to GST, allowing digital currencies to be treated just like money for GST purposes.
- **Crowd Sourced Equity Funding (CSEF):** Existing regulation and taxation law restricted CSEF platforms from operating in Australia. Government investigation and public consultation led to changes in early 2017 to facilitate the use of CSEF in Australia. The Government legislated a CSEF framework for public companies in March 2017. The framework will commence in late September, providing a new funding source for start-ups and innovative small businesses.
- **2030 Strategic Plan:** As per the 2017 Budget, the government has commissioned Innovation and Science Australia to develop a 2030 Strategic Plan for Australia's Innovation, Science and Research (ISR) System to ensure Australia is positioned as a world leader in innovation.
- **Open data:** The Government will introduce an open banking regime by giving customers access to and control over their banking data to increase consumer choice and improve competition in banking. An independent review to recommend the best approach to implement the open banking regime will be commissioned by the end of 2017.
- **Significant Investor Visa (SIV) program:** On 1 July 2015, the SIV program was implemented by the government to enable venture capital fund managers to assist new high-growth technology businesses. On 14 October 2015, it announced changes to the SIV program and introduced a new Premium Investor Visa (PIV) program as part of a package of policy initiatives aimed at promoting investment and innovation in Australia and in particular, to inject the much-needed capital into Australia's venture capital industry.

Regulatory Framework

- Comprehensive credit reporting (CCR): To encourage innovation in the financial services sector of the country, the government has asked the Productivity Commission to consider CCR as part of its inquiry into data accessibility.
  - Access and utilisation of CCR data by Fintech companies will facilitate the growth of peer-to-peer lending products and marketplaces.
- **The Innovation Hub (2015)** was developed to assist Fintechs to understand ASIC's regulatory system. This includes ASIC senior staff attending open events and industry hubs to respond to queries.
- Peer-to-peer lending: P2P lending is regulated under the National Consumer Credit Protection Act. ASIC issued guidance on marketplace lending in March 2016 to help providers of P2P lending products, including information about legal obligations. Investors do not provide funds directly. The investor funds are accumulated in a Managed Investment Scheme (MIS) and lent through the platform's Australian Credit License.
- The Corporations Amendment (Crowd-sourced Funding) Act 2017 commenced in March 2017 and provides for amendments to be made to the Corporations Act 2001 (Cth) to deal with an increase in crowd-sourced capital-raising activities by companies within Australia.
- Guiding robo-advisors: The Australian Government is working in tandem with ASIC to update the current regulations and guidelines for robo-advisors.
  - New guidance will address the issues specific to robo-advisors, including how to comply with 'best interest' requirements.
- As part of the National Innovation and Science Agenda, there have been **reforms to Insolvency** laws to appease early stage investors' concerns over inadvertent breaches of insolvent trading laws when in investing in start-ups. These include:
  - Reducing the default bankruptcy period from three years to one year;
  - Availing directors from personal liability for insolvent trading if they appoint a restructuring adviser to develop a turnaround plan for the company; and
  - Making ipso facto clauses, which allow contracts to be terminated solely due to an insolvency event, unenforceable if a company is undertaking a restructure.
- New Early Stage Investor Tax Incentive introduced to provide tax incentives for angel investors to invest in early stage innovation companies (generally technology based start-ups less than three years old).

GOVERNMENT POLICY AND REGULATORY FRAMEWORK (3)

Government Policy

- **Business Innovation and Investment Visa:** The visa is available for participants interested in either investing or owning and managing business in Australia. It resulted from the National Innovation and Science Agenda (NISA) in December 2015 and was intended to attract wealthy and established entrepreneurs to Australia and was rolled out during 2016.
- **From July 2016**, a new angel investor tax incentive modelled on a similar program in the UK provides qualifying 'angel' investors with a 20% tax rebate for investing in early stage innovation companies including Fintechs. This program has attracted interest from family offices and high net worth individuals and increased available capital for early stage technology start-ups.
- In **September 2016**, the Entrepreneur visa was introduced as part of the Business Innovation and Investment Visa scheme. An Entrepreneur visa holder can progress to permanent residency after four years if they can meet a measure of success, which includes factors such as business turnover, employment of Australians and ability to obtain significant financial backing.
- **December 2016**: Australian university graduates in STEM and ICT will receive extra points under the points-tested Skilled Migration program to qualify for a permanent work visa.
- The government is also investing $13 million over five years to encourage more women to choose and stay in STEM research, related careers, start-ups and entrepreneurial firms.

Access to Skills

- Sydney has a well developed skill base, with a strong education and research sector.
- The Sydney Metropolitan Region has six major universities and nine campus sites for non-metropolitan universities.
- The universities drive innovation through research and the commercialisation of research. They also contribute to the pool of talented students, academics and graduates who often form start-ups.
- UNSW has the Centre for Innovation and Entrepreneurship and the School of Computer Science and Engineering Incubator program. It recently opened the Michael Crouch Innovation Centre.
- iAccelerate is a University of Wollongong initiative which has a presence in Sydney within its Sydney Business School. Events such as the iAccelerate Entrepreneur Club meetings are aimed specifically at start-ups and a space is being developed for iAccelerate start-ups within the Business School premises.
- Organisations such as General Assembly, Pollenizer, Coder Factory and Fusion Labs provide valuable education and training programs in entrepreneurship and digital skills for individuals, start-ups and large companies.
- The University of Sydney has the Entrepreneurship & Innovation Research Group, which delivers entrepreneurship units of study that are broadly available to students across the university. It also coordinates Genesis, a student start-up competition. The University of Sydney union initiative, INCUBATE, was the first student union–run tech start-up accelerator.

BUSINESS ENVIRONMENT AND ACCESS TO SKILLS

Business Environment

- As Australia's financial hub, Sydney is home to the Australian Securities Exchange and is the headquarters for more than 75 percent of all foreign and domestic banks in Australia.
- Sydney has a growing technology start-up ecosystem, consisting of over 64 percent of Australia's tech start-ups and providing up to 15 percent of Australian ICT employment.
- According to the World Bank Group's Doing Business 2016: Measuring Regulatory Quality and Efficiency publication, Australia (**using Sydney as the measure**) ranks 13th overall out of 189 economies.
- For six years in a row, Australia has been ranked 3rd on the Index of Economic Freedom. It is ranked 10th for 'ease of doing business' by the World Bank and 4th when compared to economies with a large population.
- Australia's financial services sector has:
  - Assets of almost A$6.4 trillion, over four times Australia's nominal GDP;
  - The world's 4th largest superannuation system;
  - Strong financial market turnover; and
  - The 2nd largest liquid stock market in the Asian region, after Japan.
- The 2013 Anholt-GfK City Brands Index ranked Sydney as the second best city in the world, next to London, for its brand appeal and image. Sydney was also voted the safest and friendliest city.
- Sydney is situated in the same broad times zones of the rapidly growing economies of East Asia, including China, Japan, Korea and South East Asia.

Start-up Ecosystem

- Sydney has one of the largest start-up ecosystems in the world, with growth driven by a number of accelerators, incubators, co-working spaces and networking events.
- In **April 2017**, Australia ranked 8th out of global Fintech hubs.
- On **1 July 2015**, to encourage investments in Fintech start-ups, the government announced new processes such as employee share schemes, immediate cash-flow benefits and tax savings.
- Employee share schemes (ESS): the tax concessions for ESS were expanded to make it easier for start-ups to attract and retain the talent they need to grow by limiting the requirement for ESS disclosure documents lodged with ASIC to be made public (which may contain commercially sensitive information).
- Immediate cash-flow benefits: the government allows start-ups to deduct the professional expenses incurred while beginning a business, such as legal expenses on establishing a company, rather than writing them off over five years.
- Tax savings: The small business corporate tax rate will be further reduced to 27.5 percent. The threshold turnover for small business will be progressively increased to $50M over the next 3 years.
- Angel investor tax incentive: a 20% non-refundable tax offset on investments capped at $200,000 per investor per year and a 10 year capital gains tax exemption for investments held for at least twelve months.
- In **July 2016**, the government made improvements to the Early Stage Venture Capital Limited Partnership (ESVCLP) and Venture Capital Limited Partnership (VCLP) regimes. By relaxing eligibility and investment requirements, managers can now undertake a broader range of investment activities and attract a greater diversity of investors. Investors in new ESVCLPs receive an immediate 10% tax rebate on their investment.
- In **March 2016**, the City of Sydney published the "Tech start-ups Action Plan" – a framework to create a "knowledge-based", "innovation driven" business environment within the city.

ACCESS TO FUNDING AND START-UP ECOSYSTEM

Access to Funding

- Through the **National Innovation and Science Agenda (2015)** the Australian government will invest $A1.1 billion over four years to drive smart ideas and address obstacles, such as insufficient access to early stage capital for start-ups. Some of the initiatives already implemented are:
  - Angel investor tax incentives to encourage more angel investors and improve access to seed and series A capital;
  - Changes to ESVCLP and VCLP rules to encourage earlier stage investment by fund managers and to provide fund investors with an immediate tax incentive; and
  - Ability for small business to fully depreciate any capital item purchased for less than $20,000 in the one year.
- The NSW Government, through NSW Department of Industry, offers three types of grant assistance:
  - Minimum Viable Product grants provide matched funding of up to $15,000 to help technology SMEs engage with potential business customers so they can demonstrate an idea, prove a concept, develop a prototype or customise a B2B solution;
  - TechVouchers grants provide up to $15,000 in matched funding so that technology SMEs can collaborate with a NSW research organisation to overcome a specific technical challenge or test a new technology; and
  - Collaborative Solutions provides grants of up to 25% of the project costs (to a maximum of $100,000) for consortia that are working to develop an innovative solution.

LONDON

GOVERNMENT POLICY AND REGULATORY FRAMEWORK

Government Policy

- The UK government continues to provide support to the thriving Fintech sector through various financial incentives and policies.

GOVERNMENT FUNDING

- The UK government offers a number of tax incentives and programs in order to promote competition and innovation including:
  - Enterprise Investment Scheme (EIS: Introduced in 1994)/Seed Enterprise investment Scheme (SEIS: Introduced in 2012): Encourages investment into early stage, high-risk businesses and provides an upfront income tax relief of 30 percent and 50 percent, respectively.
  - Research and development tax credits: On 1 April 2015, the tax credits were enhanced substantially. SME's are now entitled to a super-deduction of 230% on qualifying expenditure with cash back available to loss making SMEs.
  - UK Innovation Investment Fund (June 2009): supports investment fund creation and is targeted at high growth technology-based companies.
  - The Patent Box scheme (April 2013): allows companies to pay a lower rate of Corporation Tax on profits earned from the patent innovations.
  - Entrepreneur's Relief (January 2008): Offers a reduction in the capital gains tax rate of 10 percent for founders of start-up firms who sell or give away their businesses.
  - 21 November 2016: Theresa May has pledged £2 billion a year in government investment by 2020 for projects and businesses conducting research and development of cutting edge technology, with a specific focus on AI, robotics and biotechnology.
  - The UK has one of the lowest tax rates of all G7 economies: The current UK Corporation Tax rate on profits is 19 percent which is significantly lower than the G7 simple average of 30.21 percent (2016). The Government plans to further reduce taxation to 18 percent by 2020.

Regulatory Framework

- The regulatory authorities have been key in developing a conducive business environment for Fintech companies.

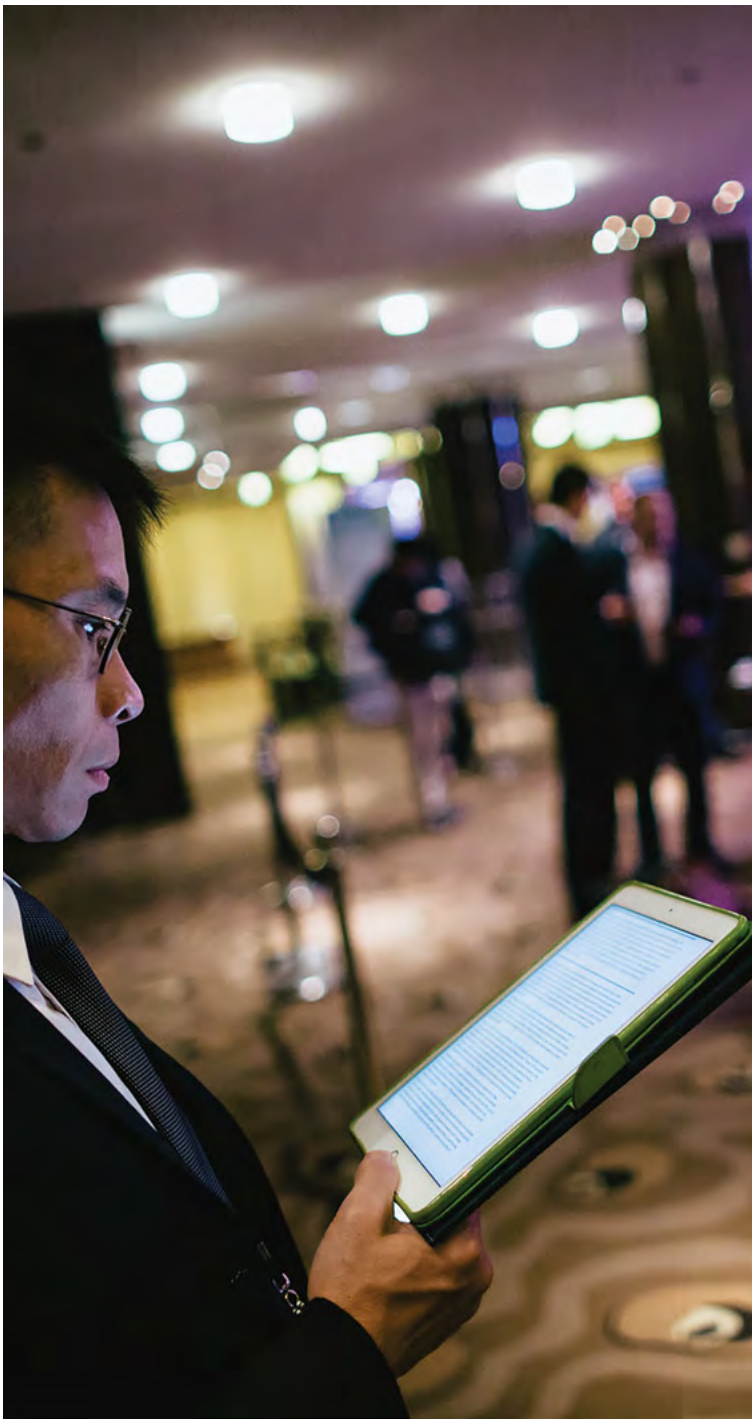
REGULATORY INITIATIVES

- **The Financial Conduct Authority** (FCA) promotes innovative technologies and supports companies in developing new business models through their Project Innovate (October 2014) and the Innovation Hub:
  - *Innovation Hub*: Assists businesses to access rapid feedback on the regulatory implications of their business plan or concept.
  - **Oct 2016**: New market entrants now have an end-to end experience through the hub. Businesses receive authorisation support by a specialised Project Innovate process and after authorisation the FCA provides dedicated supervisory support (normally for one year).
  - *Advice Unit*: As a part of Project Innovate, the Unit provides regulatory feedback to firms developing automated models that seek to deliver lower cost advice to consumers.
  - *Regulatory Sandbox* (9 May 2016): allows businesses to test new financial products and services without the usual regulatory impacts.
  - **April 2017**: The FCA launched a discussion on distributed ledger technology (blockchain) to start a dialogue around its risks and opportunities.
  - **March 2016**: The FCA held a Regtech roundtable series to learn about industry views.
- **April 2015**: The Payments Systems Regulator was introduced to act as the regulatory body and promote competition and innovation in the £81 trillion payment systems industry of the UK.

Government Policy

OTHER GOVERNMENT INITIATIVES

- Visa Programs
  - Tech Nation visa scheme (October 2015) – The government relaxed visa rules for up to 200 'exceptional' technology workers as a part of the Tech Nation visa scheme.
  - The government also offers entrepreneur visas for founders with "businesses which have high growth potential" and who have been funded with at least £50,000 from an approved organisation
  - Supported by the UK Department of Investment & Trade (UK DIT), the Graduate Entrepreneur Visa Program encourages graduates with exceptional entrepreneurial skills and a credible business idea to apply for a visa to continue to stay in the UK after graduation.
- **23 November 2016**:The UK DIT has committed to providing £500,000 a year into Fintech specialists and introduce a network of regional Fintech envoys, in a bid to consolidate the UK's position as a leading Fintech player in the post-Brexit era.
- International Engagement:
  - The UK DIT organises various Fintech trade missions around the world in order to introduce delegates from Fintech companies to the local market, allowing them to pitch to VC firms and financial institutions and meet with representatives of government agencies and regulatory bodies.
  - Between **5 – 9 December 2016**, UK DIT hosted 12 Canadian Fintech start-ups, with a view to showcase UK's strengths as a leading global Fintech hub.
  - The FCA has signed Regulatory Cooperation Agreements with the MAS in Singapore, ASIC in Australia and the FSC in South Korea. This will enable regulators to refer Fintech firms to their global counterparts while also setting out a framework of information sharing on financial services innovations in their respective markets.



BUSINESS ENVIRONMENT AND ACCESS TO SKILLS

Business Environment

- London has been ranked on the top in Z/Yen Global Financial Centers Index, despite exiting the European Union.
- The country's GDP has grown by 0.7 and 0.8 percent respectively through the third and fourth quarter of 2016, primarily driven by an increase in consumer spending.
  - Increase in consumer spending was highlighted by 3.7 percent annual growth registered by Retail Sales Index in 2016.
  - Accounting for almost 80 percent of GDP, the services sector also contributed to the GDP, growing by 2.8 percent through 2016.
- With office hours overlapping with a majority of the countries in the world, London remains a preferred location for establishing offices.
- In order to maintain London's status quo as a lucrative business destination, the government has also introduced schemes and encouraged banks to improve access to finance for businesses.
- Key schemes include:
  - **1 November 2016**:Implemented a referral system which ensures that upon rejection of SME loans, the banks would in turn refer loan applicants to alternative finance providers.
  - **10 February 2016**: An industry led Open Banking Working Group published a new framework, supporting the use of open APIs in the banking sector. The framework enables Fintech and third parties to access and as well as leverage customer data to identify business prospects.
  - **March 2015**: Announced Digital Savings Passports initiative, which includes a digital passport containing a consumer's financial information, such as place of residence, national insurance, mortgage and banking details. This would assist the customer to conduct all financial transactions, such as paying bills, transferring funds from a single source.
- The UK has also been the major investment destination for technology investments in Europe, attracting £28 billion in technology investment since 2011, compared to £11 billion in France and £9.3 billion in Germany.

Access to Skills

- With the UK's exit from the EU, availability of skilled labour has become an important issue as the Fintech industry relies heavily on skilled migrant labour.
- The UK has been an important destination for students and continues to attract a range of talent, some of whom tend to become a part of the country's workforce.
  - In **March 2014**, launched ICS Entrepreneur, a volunteering scheme that nurtures young entrepreneurs aged 18–25 years to hone their business skills, confidence and knowledge of overseas markets.
- London has been a major hub for Fintech employment. In **May 2016**, the UK was ranked as the largest Fintech hub in the world, generating revenue of £6.6 billion and employing 61,000 personnel.
  - Revenue per Fintech employee was £108,200 in the UK in 2015, greater than both New York (£98,200) and California (£63,500).

ACCESS TO FUNDING AND START-UP ECOSYSTEM

Access to Funding

- While the overall UK technology sector received lower funding in 2016, (£ 1.96 billion compared to £2.04 billion in 2015), venture capital investment in London-based tech firms increased from £1.36 billion in 2015 to £1.43 billion in 2016.
- UK's overall investment landscape did not suffer after the Brexit vote. Venture capitalists invested over £1 billion into UK tech firms post Brexit, which is more than double the investment into tech companies in Germany and France.
- The government-backed London Coinvestment Fund (LCIF) focuses on addressing the funding gap for tech start-ups seeking seed investment.
- The alternative finance industry in the UK is expanding – in 2015, the combined market activity of the UK's online alternative finance industry grew to £3.2 billion, an increase of 84 percent from 2014.
  - The fastest growing sectors are equity-based crowdfunding and donation- based crowd funding, which grew by 507 percent between 2014 and 2015 (£2 million to £12.13 million).
  - Peer-to-peer business lending was the largest model (by volume) in the UK online alternative finance market. In total, nearly £1.49 billion was lent to SMEs in the UK (in 2015). This represents an average growth rate of 194% between 2013 and 2015.

Start-up Ecosystem

- London has a vibrant entrepreneurial ecosystem and is an attractive location for start-ups.
- The number of active tech start-ups is estimated to be 5,400 with a combined value of $US44 billion (2015).
- London has over 70+ coworking spaces and over 36 start-up incubators and accelerators, including Europe's first property accelerator, Pi Labs, and Fintech incubator, Level 39.
  - Level 39 is one of the largest technology accelerators for retail, cyber-security and future cities' technology in Europe, with Fintechs accounting for 70 percent of its start-ups.
  - Level 39 has ~150 member companies, including those in cyber monitoring, payments systems and blockchain.
- Millennial entrepreneurs (between the age of 18 to 30) can apply for soft loans offered by the Prince's Trust, along with additional support, mentorship and low-interest finance at a rate of 6.2%.
- Tech City UK is a government funded organisation, which provides a range of support to technology companies. One of the schemes is the Future Fifty, which gives select start-ups access to expertise within the Government and across the private sector.
  - Tech City UK also runs the Digital Business Academy, a free online learning platform for budding tech entrepreneurs to learn key skills and receive rewards, including free and discounted work space and mentoring.

SHANGHAI

GOVERNMENT POLICY AND REGULATORY FRAMEWORK

Government Policy

- In **July 2015**, the Chinese government introduced regulatory guidelines to support the development of the internet finance sector. The guidelines, jointly released by 10 central government ministries and industry regulators, seek to highlight overall requirements for authorities in supporting internet finance.
- The Chinese government has introduced regulations for setting up new entrepreneurial residence and immigration policies. Key aspects include the removal of external and internal labor market restrictions in order to encourage entrepreneurial activity in the technology and services industries in Shanghai.
- **The Five Year Plan for 2016-20** has referred to an increased focus on regulating, promoting innovation and accelerating growth in the financial sector.
- **From 1 February 2016**, the Shanghai government has provided compensation for losses incurred by investment firms who invest in early stage and seed funded tech start-ups
  - The new policy provides up to 3 million RMB (around $A570,000) per unsuccessful investment, with a limit of 6 million RMB (around $A1.1 million) per investment firm per year.
  - For early-stage investment losses, compensation is limited to 30 percent of actual losses, which is to be effective for two years initially. Only institutions focused on making angel investments in technology start-ups in Shanghai are qualified to apply for compensation.

Regulatory Framework

- China's regulatory regime is positioned to be supportive of entrepreneurs and to encourage sector growth.
- **In 2016**, the Chinese State Council announced a number of policies to encourage innovation through the formation of three "national innovation demonstration zones". These zones, which include Shanghai's Zhangjiang high tech zone, have been created for piloting new ideas and development models.
- In **August 2016**, the CBRC imposed 13 new restrictions on P2P platforms. These prohibit lenders from selling financial products, providing guarantees and pooling investors money. They have also put a cap on the amount consumers and businesses can borrow.
- China's central bank has published a set of new regulations related to third-party payment transactions. They have been effective since **July 2016**.
  - As per the new regulations, outgoing payments will be set based on client profiles. In addition, Know Your Client (KYC) checks must be completed on clients for anti-money laundering purposes.
  - On the backdrop of rising levels of fraud, the China Banking Regulatory Commission (CBRC) issued interim measures (August 2016) which comprise the first comprehensive legal framework specifically regulating peer-to-peer lending activities in China.
  - As per the proposed regulations, P2P platform operators must be registered, customer funds must be held in a bank and operators are not allowed to provide other financial services such as setting up asset pools and equity or real asset funding.

Government Policy

- Shanghai is aiming to be a leader in blockhain technology, with the head of Shanghai's Financial Service Office (FSO) calling for legal regulation of blockchain technology in February 2017.
  - The Chinese government's wider focus on bitcoin innovation is highlighted by the country's mandate to support blockchain development as part of its latest national five-year plan.
- China's central bank, The People's Bank of China, is working towards issuing its own digital currency and plans to officially launch a digital currency research institute.

TAX INCENTIVES

- **Advanced Technology Service Enterprise (ATSE)**: From 1 July 2010 to 31 December 2018, eligible companies are entitled to a reduced corporate income tax rate of 15% (reduced from 25%), and education fees not exceeding 8% of the total salaries of the ATSE can be deducted for CIT purposes (while the non-deducted part can be carried forward).
- **125% R&D Super Deduction**: Eligible R&D activities are entitled to a 150% tax deduction on R&D expenses incurred during the year; effectively, it is equivalent to 12.5% net benefit if the company is on the 25% corporate tax rate.
- **High New Technology Enterprise (HNTE)**: Eligible companies that qualify for HNTE status are entitled to a reduce corporate income tax rate of 15% (reduced from 25%) for three consecutive years.

Regulatory Framework

- **In 2015**, the Regulation on Non-Depositing Loan Institutions was also introduced by the government. It is applicable to all lending activities by non-deposit loan institutions.
  - As per the new regulation, a lending business permit is required to get into the lending business by the non-deposit loan institutions.
  - Rules related to loan agreements, internal risk management, clients' credit assessment, etc. are also introduced in the regulation.
- **In July 2015**, China Insurance Regulatory Commission (CIRC) issued guidelines on internet finance, including crowd funding, P2P lending and online insurance.
- Requirements related to operating conditions and rules, business areas, information disclosure, supervision and administration were also introduced in the interim procedures.
- **In August 2015**, China Securities Regulatory Commission (CSRC) announced a notice about the inspection of internet equity-based crowd-funding activities.– Without the approval of China's securities regulator, any individuals or institutions should not conduct equity-based crowd-funding activities.
- **In October 2016**, the Chinese State Council issued an internet finance risk governance implementation scheme aiming to promote valuable internet finance innovations, regulate illegal behaviours, prevent risks and establish long-term regulatory mechanisms. This scheme guides the implementation of internet finance rules and regulations. The main regulated financial business includes, but is not restricted to, peer-to-peer lending platforms, equity-based crowd-funding and third-party payment.

BUSINESS ENVIRONMENT AND ACCESS TO SKILLS

Business Environment

- Shanghai is China's largest centre for trade, finance and high tech industries.
- Shanghai has been identified as one of the three national innovation demonstration zones by the State Council.
- The city is rapidly becoming a preferred destination for international investors seeking opportunities in mainland China. The Shanghai government has adopted various policy measures to encourage institutional investors, such as risk free investment capital in the event of an unsuccessful investment venture as well as easing up permanent residency requirements.
- **Back in 2013**, the government demarcated an area of 46 square miles as the Shanghai Free Trade Zone, enhancing ease of business for foreign investors.
- Shanghai is the epicenter of the financial services industry in China. By the end of 2015, there were 1,430 financial institutions (including banks, insurance companies and securities companies), of which 230 had foreign investment.
  - In a **2016 KPMG report** on the Chinese Fintech landscape, of the top 50 Fintech firms in China, Shanghai was home to 15 companies (second only to Beijing).

Access to Skills

- The average education level in Shanghai is higher than the rest of China and the city offers highly qualified human resources.
- However, when compared to Hong Kong, Shanghai still lacks a significant pool of financial sector professionals, particularly those with high-tech, global experiences or who use English as a working language.
- Furthermore, Shanghai's high levels of air pollution work against it in attracting top talent.
- In order to encourage the growth of the talent pool in the city, the Shanghai government has implemented a number of policies to attract foreign talent.
  - One policy entitles international students who obtain master's degrees at Chinese universities to instantly receive working permits if they get a job with a company in the China (Shanghai) Pilot Free Trade Zone. Further, bachelor degree holders who want to start a business can apply for two-year residency permits.

ACCESS TO FUNDING AND START-UP ECOSYSTEM

Access to Funding

- **In June 2015**, the Chinese government announced a $US6.5 billion seed-stage venture capital fund. Backed by the Chinese government, the fund will also include investments from the private sector.
- The venture capital landscape is extremely positive in China. Chinese start-ups received $US41.8 billion in **2015**, with Shanghai receiving18 percent of the total funding.
- The Shanghai Municipal Commission of Commerce estimated Shanghai's total contracted foreign capital was worth $58.9 billion in 2015.
- In **January 2017**, a consortium of Chinese state-owned companies and private enterprises created a $US1.44 billion investment fund for Fintech mergers and acquisitions.
- The focus area for investment is in Fintech subsectors, such as big data, artificial intelligence, mobile payments, supply chain financing and blockchain technologies.
- Another similar fund, launched in **October 2016**, is the Zhongguancun Fund of Funds, worth $US4.3 billion.

Start-up Ecosystem

- Since **mid-2016**, more than 70,000 start-ups have been set up in Shanghai, a growth of 20 percent from the previous year.
  - The start-up community in the city is well connected, playing host to a number of incubators, coworking spaces and venture capitalists.
- The Chinese government, at both a local and central level, is offering a number of forms of funding and grants.
  - The government-backed venture funds raised close to $US231 billion in 2015, part of the government's effort to drive innovation in the economy and, consequently, reduce the Chinese economy's dependence on heavy industries.
- In a bid to ease the process of gaining permanent residency for tech entrepreneurs, the Shanghai municipality has also relaxed restrictions on residency and degree requirements for entrepreneurs.
- The Shanghai government plans to launch various schemes for start-ups. For example, under the "Entrepreneurship in Pujiang Action Plan" the city government will create a host of entrepreneurship schools, with the aim of having 200,000 technology entrepreneurs by 2020.
- In the last KPMG Global Technology Innovation report, Shanghai scored as the top emerging new tech hub in the world.

SINGAPORE

GOVERNMENT POLICY AND REGULATORY FRAMEWORK

Government Policy

- **3 May 2016**: The Monetary Authority of Singapore (MAS) and the National Research Foundation announced the establishment of a Fintech office in order to to facilitate the development of Singapore as a Fintech hub.
  - MAS allocated a budget of SG$225 million to aid in the development of the Fintech ecosystem from 2016 to 2021.
- **Primary objectives:**
  - Aligning Fintech funding schemes across government agencies.
  - Implementing strategies and policies in industry infrastructure, talent development and business competitiveness.
  - Branding and marketing Singapore in Fintech hub events and initiatives, such as the five day Singapore Fintech Festival in November.
- **On 15 February 2017**, MAS announced plans to further ease regulations for venture capital (VC) managers assisting early–stage start-ups.
- The MAS stated that the new regulations will reduce paperwork and the application time for receiving a VC license, from 2.5 months to a few weeks.

Regulatory Framework

- On **1 August 2015**, the MAS established the Fintech & Innovation Group (FTIG) to strengthen competitiveness in the financial sector and to focus on regulatory policies and strategy development pertaining to technology and innovation in risk management.
- On **25 August 2016**, the MAS issued a consultation paper on a 'Proposed Activity-based Payments Framework' and the 'Establishment of a National Payments Council'.
  - The framework would classify payment activities into multiple categories and require companies to obtain a license from MAS. Digital currency exchanges would be covered by a provision overseeing start-ups, whilst providing money transmissions and conversion services.
  - During the inaugural Singapore Fintech Festival held in November 2016, the MAS also highlighted plans to develop a national KYC (know your customer) utility.
- On **16 November 2016**, the MAS published "regulatory sandbox" guidelines to enable experimentation of solutions that utilise technology to deliver financial products or services.
  - The Sandbox provides a relaxed regulatory environment to understand market responses for products and services. It also ensures overall safety of the financial system and provides appropriate safeguards to contain failure.

OTHER REGULATORY POLICIES

- Singapore has over 50 comprehensive Double Taxation Avoidance Agreements, multiple free trade agreements (FTAs) and Investment Guarantee Agreements (IAGs) and comprehensive intellectual property laws, making it a preferred business destination.

Government Policy

PARTNERSHIPS

MAS has signed several cooperation agreements with regulatory authorities from other countries

- **In March 2017**, the MAS signed agreements with France's Autorité de Contrôle Prudentiel et de Résolution (ACPR) and the Autorité des Marchés Financiers (AMF) to enhance Fintech co-operation between both countries.
  - ACPR is responsible for supervising the banking and insurance sectors in France, while AMF is an independent public authority responsible for ensuring that savings invested in financial products are protected.
- **On 13 March 2017**, the Financial Services Agency of Japan (JFSA) and the MAS established a co-operation framework for Fintech links between both countries.
  - The framework enables the MAS and the JFSA to refer Fintech companies in their countries to each other's markets.
- **On 8 March 2017**, the MAS and the Abu Dhabi Global Market (ADGM) signed a co-operation agreement to help Fintech entrepreneurs and support innovation in financial services in Singapore and Abu Dhabi.
  - The agreement establishes a framework for both regulators to assist start-ups and innovators to understand the regulatory regime in each jurisdiction and to provide support through the application and authorisation process.
- **On 24 October 2016**, the MAS and the Korean Financial Services Commission (KFSC) signed an agreement to foster more co-operation in the Fintech space.
  - Under the agreement, the MAS and the KFSC will explore potential joint innovation projects on technologies such as big data and mobile payments.
  - The MAS and the KFSC will also discuss issues of common interest and share information on Fintech trends and how it may impact existing regulations.
  - The MAS also has cooperation agreements with Australia, India and Switzerland to promote innovation in financial services across their respective markets.

BUSINESS ENVIRONMENT AND ACCESS TO SKILLS

Business Environment

- Singapore has been ranked second in 2017 by the World Bank for 'ease of doing business', driven by factors such as rapid business incorporation and low start-up cost.
- Singapore had a GDP growth rate of 2.5 percent (year-on-year) in the first quarter of 2017, primarily driven by growth in the manufacturing and services sector.
  - Accounting for over two-thirds of Singapore's GDP, the services sector grew by 1.5 percent (year-on-year) in the first quarter of 2017.
- The country provides a favourable environment to conceive and implement new businesses.
- Through 2012–16, Singapore moved up from 17th to 10th in a Compass report ranking start-up ecosystems.
  - This has been primarily driven by growth in high-technology and knowledge-intensive sectors.
- Singapore supports OECD's Base Erosion and Profit Shifting (BEPS) initiative, which taxes profits where they are created. They plan to refine their schemes and implement relevant standards to align with BEPS initiatives.

VALUE PROPOSITION FOR DEVELOPMENT OF FINTECH
Singapore espouses:

- A collaborative Fintech ecosystem comprising start-ups, technology companies, financial institutions, investors, research institutes, institutes of higher learning, innovation professionals and government agencies.
- An open banking platform via API's for innovation and integration of new and legacy IT systems within the sector.
- A sandbox for the experimentation and deployment of innovative products and solutions within a controlled environment.
- Access to skilled researchers, innovators and experts for enhanced Fintech capabilities.
- A Financial Sector Technology & Innovation (FSTI) scheme for the creation of a comprehensive ecosystem for innovation. The FTSI promotes experimentation, and accelerates the development of, nascent innovative technologies in the financial services.

Access to Skills

- While Singapore is ranked first on the Asian Digital Transformation Index, it was ranked fourth in recruitment of talent in a global research project released by Economist Intelligence Unit (EIU).
- The country has also been ranked 15th in the world-talent ranking by Swiss business school IMD.
  - Singapore is facing significant challenges both in developing homegrown, and attracting foreign, talent.
  - The development of a talent pool with advanced digital skills has been identified by Singapore as an area to improve for further development of its Fintech space.
- Singapore has also supported initiatives to improve Fintech education in the workforce:
  - On 10 November 2016, the Byte Academy launched its first international campus in Singapore to support Singapore's Smart Nation initiative and to help grow the local talent pool.
  - Various organisations across the financial services and Fintech and start-up communities have also supported industry-specific partnerships and education programs.
  - Standard Chartered Bank, IBM, INSEAD, Thomson Reuters and Microsoft have also collaborated with Byte Academy to form an advisory committee, the Fintech Skills Charter, to design best-in-class standards for Fintech development in Singapore.
- The Financial IT Academy (FITA) at Singapore Management University (SMU) was appointed by the MAS and the Infocomm Development Authority of Singapore (IDA) to design and deliver training programs for Technology & Operations (T&O) professionals in the financial services industry.
  - In **May 2015**, FITA was granted the Accredited Financial Training Provider status by the Institute of Banking and Finance in Singapore (IBF).
  - In **October 2016**, The MAS signed a memorandum of understanding with five local polytechnics to review and enhance their curricula in the next three years in order to prepare and equip their graduates with the skill sets necessary to take on Fintech-related jobs.

ACCESS TO FUNDING AND START-UP ECOSYSTEM

Access to Funding

The Singapore government and its agencies have extensive funding mechanism in place to assist start-ups, Fintechs and other institutions in receiving funds (or grants) to develop their businesses. Some of the funding initiatives include:

- Government-aided equity financing schemes;
- Cash grants;
- Business incubator schemes;
- Debt financing schemes;
- Tax incentive schemes;
- **Funding/grants available for Fintechs include the:**
  - **start-up SG Founder Grant (effective from 1 May 2017)**: Under the start-up Founder scheme, first-time entrepreneurs can access a start-up capital grant and mentorship support (the level of support is up to $30,000 by matching $3 to every $1 raised). Successful applicants will be teamed with mentors under a new Accredited Mentor Partners (AMPs) approach. These AMPs will include incubators and accelerators which will provide advice, networking and learning opportunities for first-time entrepreneurs.
  - **SPRING start-up Enterprise Development Scheme – Spring Seeds Capital (SSC)**: An investment arm of SPRING Singapore, it is an equity–based co–financing option for start-ups with intellectual content and strong growth potential across international markets. It offers a maximum of SG$2 million in tranches and is disbursed after meeting predefined criteria.
  - **Technology Enterprise Commercialisation Scheme (TECS) (2006)**: Assists the formation and growth of start-ups that work with Intellectual Property technology and a scalable business model. A maximum of SG$0.5 million is offered.
  - **Capabilities Development Grant – Technology Innovation (CDG-TI) (1 October 2016)**: Offers up to 70 percent of qualifying project costs for initiatives in areas like increasing productivity, product development and market access.
- **Financial Sector Technology and Innovation (FSTI)**: Offers a maximum of SG$0.2 million for up to 18 months of the early stage development.
- **SMEs Go-Digital**: Targeted at small to medium sized businesses (SMEs), the SMEs Go-Digital program was announced at the 2017 Budget to help SMEs build stronger digital capabilities, such as accounting software and CRM tools to more advanced applications such as data analytics and cybersecurity.

Start-up Ecosystem

Singapore has always supported initiatives for the development of businesses:

- The country launched Block 71, housing 250 start-ups in 2011.
  - A collaboration between JTC Corporation and SPRING Singapore, it allows government agencies to remain in charge of industrial development and economic growth and is expected to accommodate over 750 start-ups in 2017.
- The government also launched Block 73, housing younger start-ups, and Block 79, for biotech incubators such as The BioFactory and Exploit Technologies.
- Block 79 also includes a business concierge operated by ACE, an organisation for promoting entrepreneurship. The concierge acted as a guide for visitors who require introductions or plan to establish a company in Singapore.
- In order to cater to increasing demand from start-ups, Block 77 was planned in 2016, with Block 75 and Block 81 to be launched in 2017.
- Start-ups have also been active by raising capital for developing their businesses.
  - Across 99 rounds of funding in 2016, they raised $US1.2 billion, with Fintech attracting seven percent ($US83 million) in this period.
- The country also has dedicated schemes for helping start-ups. Key schemes include the:
  - **Early-Stage Venture Funding Scheme (equity financing)**: Offers a maximum of SG$10 million to technology start-ups.
  - **Micro-Loan Program (debt financing)**: Up to SG$100,000 for daily operations, automation or factory and equipment upgrading.
  - In August 2016, the MAS announced the opening of its Fintech Innovation Lab, known as the Looking Glass @ Mas. The Lab will provide a space for MAS to experiment in Fintech solutions with financial institutions and start-ups. It will also facilitate consultations between start-ups and industry experts and provide a venue for relevant training sessions and networking activities for the Fintech community.

SILICON VALLEY

GOVERNMENT POLICY AND REGULATORY FRAMEWORK

Government Policy

- With the new administration planning to reduce regulation and tax rates, there may be some uncertainty in the short term and an impact on Fintech entry into the market.
- The State of California offers a variety of incentive programs for start-ups to encourage business development.

GOVERNMENT FUNDING

- **Small Business Loan Guarantee Program and California Capital Access Program Collateral Support (CalCAP CS)**: Encourages lenders to issue loans to small businesses that may have difficulty obtaining capital. The schemes minimise the credit risk for lenders and makes it possible for new and existing businesses in California to qualify for small business loans.
- **Small Business Development Centers**: Small Business Development Centers (SBDCs) provide comprehensive business assistance, including helping business owners to access capital.
- **US Small Business Administration (SBA)**: SBA provides guarantees on loans from private and other lending institutions. The SBA connects entrepreneurs with lenders and funding to help them plan, start and grow their business.

TAX INCENTIVES

- **California Competes** is an income tax credit available to companies that relocate to California or stay and grow in California. 25 percent of the available credit is reserved for small businesses.
- **The New Employment Credit** is an income tax credit available to companies that hire full-time employees within designated geographic areas.
- Tax payers in the US claim $US10 billion in R&D tax credits each year. These credits are available for companies of all sizes, particularly because of new legislation enacted in December 2015.

Regulatory Framework

- The growth of Fintech is constantly challenging governments to devise new regulations.
- The US' regulatory system involves various players at the federal level, as well as a regulator for each state. The complexity and non uniformity of the regulatory system across the US makes it challenging for start-ups to navigate policies and thus, hinders formalising a standard Fintech policy.
  - For example, there are 48 different rules across the states for money transmitter businesses. Several states also require a surety bond that varies by state and can cost over $US1 million. This is a major hindrance for Fintech companies.
- In **December 2016**, the Office of the Comptroller of the Currency (OCC) announced acceptance of applications from Fintech companies for a special charter that would formally subject them to federal banking rules.
  - Companies that become chartered will get the benefits of being an established company in government records. However, they will also face anti-money laundering controls and consumer protections that apply to other lenders.
- On **22 September 2016**, Republican Congressman Patrick McHenry announced the introduction of The Financial Services Innovation Act of 2016. The bill is an attempt to address concerns including the lack of clarity in financial regulation in the US and the need for a regulatory sandbox. McHenry also proposes the creation of Financial Services Innovation Offices to form part of various governmental agencies and have a central group and Liaison Committee.
- On **18 February 2016**, the Consumer Financial Protection Bureau (CFPB) published its final policy to facilitate consumer-friendly innovation among the financia institutions.

Government Policy

OTHER GOVERNMENT INITIATIVES

Visa Programs

- In **January 2017**, the Trump Administration drafted new executive orders aimed at overhauling the H-1B visa program, that technology companies rely on to hire foreign talent. It has also announced that the current program will be under greater scrutiny.
  - On March 31 2017, the administration issued new guidelines requiring further information for computer programmers applying for H-1B visas to prove the jobs require more advanced knowledge and experience.
- In **August 2016**, the Department of Homeland Security (DHS) published the White House's International Entrepreneur Rule. The program grants temporary visas to start-up founders from other countries if the companies meet certain requirements.
- Under the new 'International Entrepreneurs Rule', foreigners can apply for "parole status" to stay and build fast-growing start-ups in the US. The status which was typically granted for individuals requiring visas to work on humanitarian or medical relief will also be extended to qualified entrepreneurs (from July 2017).
- **EB-5 Investor Visa Program**: The State of California provides customised Targeted Employment Area (TEA) certifications for projects that qualify for EB-5 investment. Locating a project in a TEA potentially allows an investment to qualify for an EB-5 visa at a lower investment of $US0.5 million, instead of the typical investment of $US1 million.
- **O-1A Visa for Entrepreneurs**: The O-1 visa is a temporary work visa available to foreign nationals who have demonstrated "extraordinary ability in science, art, education, business or athletics." The O-1 Visa is a feasible option for entrepreneurs and/or business people who face difficulties getting an H-1B or other nonimmigrant visas.

Regulatory Framework

- In **October 2015**, the SEC adopted rules that permit companies to offer and sell securities through crowdfunding platforms.
- In **March 2016**, Office of the Comptroller of the Currency (OCC) published a whitepaper, 'Supporting Responsible Innovation in the Federal Banking System: An OCC Perspective'.
  - The whitepaper discusses OCC's vision for responsible innovation in the federal banking system and highlights the principles that will guide the development of a framework for evaluating new and innovative financial products and services with various parameters.
- On **16 July 2015**, the US Treasury Department issued a Request for Information (RFI) for online marketplaces.
  - With this move, the US Treasury Department aims to access various business models and products/services offered by online marketplace lenders. It is looking to understand how the financial regulatory framework should be changed to support and develop the Fintech industry.
- As per Silicon Valley Bank's annual start-up Outlook report 2017, 26 percent of entrepreneurs stated US laws and regulations have convinced them to hire or move some operations out of the country. Immigration policy was identified as the primary driver of moving out of the US (38 percent), followed by tax policy (32 percent) and regulatory environment (30 percent).
- The Department of Labor (DOL) have proposed a fiduciary rule that broadly requires financial advisers to act as a fiduciaries to their clients. This onerous but protective rule has faced controversy and has been delayed for review, scheduled to be phased in starting July 2017.

BUSINESS ENVIRONMENT AND ACCESS TO SKILLS

Business Environment

- The US has been ranked 8th in 'ease of doing business' by the World Bank in 2017.
- Silicon Valley captures a third of all venture capital in the US and houses the headquarters of 39 businesses in the Fortune 1000.
- According to the Global start-up Ecosystem Report 2017 by start-up Genome, Silicon Valley has 12,700 – 15,600 active start-ups and two million tech workers:
  - 28 percent of the global investments into Early-Stage start-ups are captured by Silicon Valley companies;
  - Silicon Valley has the highest Global Resource Attraction score at 21 percent; and
  - Silicon Valley also claims one third of the Exit Value of the global start-up ecosystem, down by 15 percent compared to the 2015 report. Beijing and London ranked 2nd and 3rd with 10 and 8 percent, respectively.
- Silicon Valley consists of both large and small players in its business ecosystem. The presence of investors, incubators, innovation hubs and ample infrastructure makes Silicon Valley a desired destination for start-ups:
  - San Jose, part of the Silicon Valley area, has over 100 million square feet of built office, R&D and manufacturing space. Its Citywide development capacity exceeds 200 million square feet.
  - In the words of Patrick Lo, CEO, Netgear, San Jose, *"There is no other place in the world with the concentration of businesses, entrepreneurial energy, financial capital, talent pool of educated employees and government commitment to business development".*

Access to Skills

- The revision of the H-1B visa program poses a threat to Silicon Valley's talent pool:
  - The National Foundation for American Policy stated that more than half of America's start-up companies valued at $US1 billion or more have been founded by immigrants; and
  - Immigrants undertake 70 percent of the roles in management or product development teams. A downfall in the H-1B visa will restrict expertise and skills entering the US.
- Silicon Valley is home to leading universities such as Stanford University and the University of California.
- Research institutions and universities are constantly focusing on providing education, workshops and programs to encourage young entrepreneurs:
  - The University of Stanford introduced the Silicon Valley Innovation Academy (SVIA); and
  - UC Berkeley offers 'The Silicon Valley Innovation and Entrepreneurship Program.
- As of FY16, Silicon Valley had a Fintech pool of 74,000 people compared to 61,000 in the UK.
- The average salary of a Software Engineer in Silicon Valley is $US112,000 according to the Global start-up Ecosystem report 2017 by start-up Genome. This is more than double the global average of $US49,000, a factor that attracts a skilled labor force.

ACCESS TO FUNDING AND START-UP ECOSYSTEM

Access to Funding

- The U.S. is ranked second in terms of obtaining credit as per the World Bank data base.
- Silicon Valley has more than 17,000 Angel Investors making the potential for new Fintech start-up investments abundant.
- The Valley witnessed a 28 percent fall in venture capital funding to $US24.9 billion in 2016, with a 21 percent decrease in deal volumes.
  - Venture capitalists pulled back on investing towards the end of 2015 as some of Silicon Valley's "unicorn" tech companies were identified as overvalued.
- The interest of investors in Silicon Valley has shifted towards start-ups with both financial and social benefits, such as healthcare software for poor communities and low cost solar panels for homes.
  - The concept of 'impact investing' rose to $US15.2 billion globally in 2015, as compared to **$US10.6 billion in 2014**.
- According to the Global start-up Ecosystem report 2017 by start-up Genome:
  - The average early stage funding per start-up in Silicon Valley was valued at $US762,000, while the global average was at $US252,000; and
  - The early stage funding growth index was scaled at 4.4 compared to the global average of 5.0.

Start-up Ecosystem

- Silicon Valley has a variety of business organisations and institutions that create a business environment which proves to be highly favorable in creating successful firms, disruptive business models and leadership in a variety of high-tech areas.
- Silicon Valley has over 100 co-working spaces and multiple incubators to support Fintech start-ups.
- The Valley houses leading investors such as 500 start-ups, Andreessen Horowitz, Sequoia Capital, Google Ventures, SV Angel, Ribbet Capital, DFJ and Accel Partners.
- Silicon Valley conducts many beginner start-up events such as, '106 Miles', 'Creative Coffee San Francisco', 'Got start-up?', 'Latino start-up Alliance' and more.
- Silicon Valley's, 'The Founder Institute', is an idea-stage accelerator and start-up launch program that assists start-ups at each stage. The program provides essential links and bridges start-ups to co-working spaces, incubators, investors, seed capitalists, research and educational institutes.

NEW YORK

GOVERNMENT POLICY AND REGULATORY FRAMEWORK

Government Policy

- New York State supports and encourages business growth with a variety of funds, loans, grants and other financial incentives.

GOVERNMENT FUNDING

- **The New York's Empire State Development (ESD)** aims to provide loans, grants, tax credits, and technical assistance to New York State businesses seeking to grow, commercialise new technologies and products and create economic opportunities in local communities.
- **The Innovate NY Fund Program** is a $US47.3 million venture capital fund that invests in seed stage businesses to support innovation, job creation and high growth entrepreneurship throughout New York State. The program is supported with $US37 million from NY State and $US10.3 million from Goldman Sachs.
- **The Innovation Venture Capital** is a $US100 million venture capital fund that invests in seed and early stage businesses throughout New York State.
- **The Minority and Women-Owned Business Investment Fund Program** is an equity investment fund investing in early stage NYS certified Minority and/or Women-Owned Business Enterprises ("MWBEs") that are in emerging technologies and have a proprietary or differentiated product or service.
- Under the **Bridge to Success Loan Program**, the Empire State Development (ESD) expands access to short-term loans for minority and women owned firms.
- **The Global NY Fund Grant Program** is a $US35 million fund that provides grants and loans to help New York State's small and medium-sized businesses go global and create new jobs.

Regulatory Framework

- The growth of Fintech is constantly challenging governments to devise new regulations.
- The US' regulatory system involves multiple players at the federal level, as well as a regulator for each state. Thus, the complexity and non uniformity of the regulatory system across the United States challenges start-ups to navigate policies and thus, hinders formulising a standard Fintech policy.
  - There are 48 different rules across the states for money transmitter business. Several states also require a surety bond that varies by state and can cost over $US1 million. This prevents many Fintech companies from operating freely.
- In **December 2016**, The Office of the Comptroller of the Currency (OCC) announced acceptance of applications from Fintech companies for a special charter that would formally subject them to federal banking rules.
  - Companies that become chartered will get the benefits of being an established company in government records. However, they will also face anti-money laundering controls and consumer protections that apply to other lenders.
- On **22 September 2016**, Republican Congressman Patrick McHenry from North Carolina announced the introduction The Financial Services Innovation Act of 2016. The bill is an attempt to address concerns including the lack of clarity in financial regulation in the US and the need for a regulatory sandbox. McHenry also proposes the creation of Financial Services Innovation Offices which form part of various governmental agencies and have a central group and Liaison Committee.
- On the **18 February 2016**, the Consumer Financial Protection Bureau (CFPB) published its final policy to facilitate consumer-friendly innovation among financial institutions.

Government Policy

TAX INCENTIVES

- **START-UP NY:** offers new and expanding businesses the opportunity to operate tax-free for 10 years on, or near, eligible university or college campuses in New York State.
- **Employee Training Incentive Program:** provides refundable tax credits to New York State employers for procuring skills training that upgrades or improves the productivity of their employees.
- **New York Employment Zone Program:** provides New York businesses with incentives to hire individuals who both live and work in the NY Empowerment Zone.

VISA PROGRAMS

- On 18 February 2016, **New York City Economic Development Corporation (NYCEDC)** in partnership with **City University of New York (CUNY)** announced the launch of the International Innovators Initiative (IN2NYC). The program will assist 80 selected entrepreneurs to gain access to visas and is projected to create more than 700 jobs for New Yorkers by 2018–19.
- US Visas are diversified and provide multiple solutions to encourage start-ups. These include the O-1 and EB1A Extraordinary Ability Visas, E-2 and EB5 Investor Visas, H-1B and EB2 or EB3 Professional Visas, L-1A and EB1C Multinational Manager/Executive Visas etc.
- In **January 2017**, the Trump Administration drafted new executive orders aimed at overhauling the H-1B visa program that tech companies rely on to hire foreign talent. It has also announced that the current program will be under greater scrutiny.

Regulatory Framework

- In **October 2015**, SEC adopted rules that permit companies to offer and sell securities through crowdfunding. Crowdfunding platforms are designed to assist smaller companies with capital formation (up to $US1 million over a 12-month period).
- In **March 2016**, the Office of the Comptroller of the Currency (OCC) published a whitepaper, 'Supporting Responsible Innovation in the Federal Banking System: An OCC Perspective'.
  - The whitepaper discusses the OCC's vision of responsible innovation in the federal banking system and highlights the principles that will guide the development of a framework for evaluating new and innovative financial products and services with various parameters.
- On **16 July 2015**, the U.S. Treasury Department issued a Request for Information (RFI) for online marketplaces.
  - With this move, the U.S. Treasury Department aims to access various business models and products/services offered by online marketplace lenders. It is looking to understand how the financial regulatory framework should be changed to support and develop the Fintech industry.
- In **2015**, the New York State Department of Financial Services adopted the "BitLicense" regulation, which applies to firms working in cryptocurrency.

BUSINESS ENVIRONMENT AND ACCESS TO SKILLS

Business Environment

- The United States has been ranked 8th in 'ease of doing business' by the World Bank in 2017.
- The GDP of New York was recorded at $US1,265 billion, representing 7.90 percent of GDP in the US.
- New York offers a stable environment, a large economy, and access to one of the world's busiest regions. The Empire State Development of New York provides assistance to start-ups to connect with resources and opportunities.
- As of 2015, New York was home to 55 headquarters of Fortune 500 companies.
- General Partner at Rubicon Ventures, Joshua Siegel stated:
  "New York City has the largest concentration of financial resources along with high quality talent in a city of over eight million people. While the percentage of experienced founders vs. the population is low, the sheer numbers outweigh all other ecosystems. It's not percentages or arbitrary valuations without viable exit paths that are essential to an ecosystem. It's about real revenue, real exits, and real value".
- The presence of the New York Stock Exchange (NYSE) and the NASDAQ exchange fosters a citywide ecosystem for financial innovation in markets and commerce and inspires technologists to create products for financial markets.
- In 2015 New York ranked second for venture-backed Fintech investments (after California), totaling $US442.4 million across 50 deals. The top three deals were for New York-based companies Betterment, ShopKeep and CommonBond.

Access to Skills

- The revision of the H-1B visa program poses a threat to New York's talent pool:
  - The National Foundation for American Policy stated that more than half of America's start-up companies valued at $US1 billion or more have been founded by immigrants;
  - Immigrants undertake over 70 percent of the roles in management or product development teams. A downfall in the H-1B visa will restrict expertise and skills from entering the US.
- A draft proposal on cutting down immigrant visas by the Trump Administration will potentially impact a range of visas, including the H-1B, business visitor visas, investor visas and work visas. Over 85,000 visas were issued to highly-skilled foreigners through the H-1B programs.
- The US Citizenship and Immigration Services released new guidance stipulating stricter eligibility requirements for computer programmers under the H-1B visas. This will create challenges for Fintech companies.
- The average salary of a Software Engineer, as per the Global start-up Ecosystem report 2017 by start-up Genome, was recorded at $US97,000 in New York in comparison to the global average of $US49,000.
- New York City's tech sector employed 117,147 people in 2014, a 71 percent increase from 2004 (68,571).
  - 51 percent of the city's tech sector employment is in the Computer Systems Design industry- the largest share of any tech subsector.
- NYU Stern School of Business announced in 2016 the expansion of its MBA curriculum to prepare students for future jobs in Fintech as the finance industry faces one of the most significant disruptions in its history. The MBA program will allow students to choose Fintech as a specialization.

ACCESS TO FUNDING AND START-UP ECOSYSTEM

Access to Funding

- The US is ranked second in terms of obtaining credit, as per the World Bank data base.
- In 2016, US Fintech companies received investments of $US12.8 billion across 489 Fintech deals.
- New York, being one of the leading financial centres across the globe, houses an exhaustive list of investors which increases the potential for start-up funding.
- New York City's digital tech companies had a strong 2016:
  - 421 New York-based tech companies received over $US9.5 billion in funding in 2016, of which 389 companies raised over $US1 million each.
  - New York state received $US5 billion from over 100 companies exiting in 2016.
  - The B2B software industry received the highest funding in 2016, with 111 companies raising $US3.9 billion.
  - 35 Fintech companies raised $US459 million in 2016. Robo-advisor, Betterment, raised $US100 million in a Series E round which accounts for almost one-fourth of Fintech funding.
- According to the Global start-up Ecosystem report 2017 by start-up Genome:
  - The average early stage funding per start-up in New York was valued at $US568,000, while the global average was at $US252,000.
  - The early stage funding growth index was scaled at 4.6 compared to the global average of 5.0.

Start-up Ecosystem

- According to the Global start-up Ecosystem report 2017 by start-up Genome, New York consisted of 6,300-7,800 active tech start-ups, which made New York the second largest ecosystem in the world by number of start-ups.
  - New York City is the third most valuable start-up ecosystem in the world and it also produced the third highest Number of Unicorns, trailing only Silicon Valley and Beijing.
- New York Business Express provides a comprehensive guide for all business and professional needs. The online platform enables efficiency in finding information related to licensing, regulation, incentives and support to start or grow a business.
- New York City Economic Development Corporation (NYCDEC) has created an ecosystem to develop entrepreneurs across industries and stages of business with access to information, training, and innovative competitions. Some of NYCDEC entrepreneur programs include 'Artist as Entrepreneur', 'Best for NYC' and 'Innovate NYC'.
- NYCEDC has fostered an incubator and co-working space network that provides low-cost space, business services, training, and networking opportunities to hundreds of start-ups and small businesses across a variety of sectors.
  - Over 1,000 start-up businesses and 1,500 employees have benefited from city-supported incubators and these companies have raised more than $US180 million in venture funding.
- Empire State Development's Division of Science, Technology and Innovation (NYSTAR) offers:
  - The High Performance Computing Program which helps New York State companies gain competitive advantages through cost-effective access to advanced computing assets and expertise.
  - Faculty Development & Technology Transfer Incentive Programs which support New York State's leadership in technology-related research and commercialization.
- Empire State Development also offers a wide range of business training, resources and assistance programs to help businesses with everything from finding a mentor to taking products and services to a global marketplace. Programs include the:
  - Business Mentor NY;
  - Entrepreneurial Assistance Program; and
  - Employee Training Incentive Program.

HONG KONG

GOVERNMENT POLICY AND REGULATORY FRAMEWORK

Government Policy

- In **March 2016**, the Hong Kong Monetary Authority (HKMA) established the Fintech Facilitation Office (FFO) to develop the Fintech ecosystem in Hong Kong and promote the country as a Fintech hub in Asia.
- **Primary objectives:**
  - Collaborate with the industry to promote research in Fintech solutions.
  - Offer a platform for industry communication and outreach activities.
  - Operate as an interface and point of contact between Fintech market participants and regulators.
- In April 2015, the government also established the Steering Group on Financial Technologies (Steering Group) to advise on how to develop and promote Hong Kong as a Fintech hub.
- On **1 March 2016**, the Securities and Futures Commission (SFC) established the Fintech Contact Point for enhancing communication with businesses involved in the development and application of Fintech in Hong Kong.
- The Fintech Advisory Group was established under the Fintech Contact Point and its objective is to assist the agency in:
  - Obtaining information on the latest trends of Fintech;
  - Collecting stakeholders' input on specific Fintech themes;
  - Identifying opportunities, risks and regulatory perimeter implications of Fintech; and
  - Enhancing understanding of Fintech as an evolution of the financial services industry.
- In **March 2016**, HKMA also established a Fintech Facilitation Office (FFO) to enable the development of the Fintech ecosystem in Hong Kong.

Regulatory Framework

INTELLECTUAL PROPERTY TRADING HUB

- In **2013**, the Government of Hong Kong launched an intellectual property trading hub with a budget of $US3 million.
- Through **2013-16**, the budget would be expended on IP consultation, man power training and other services to SMEs.

CYBERPORT

- On **7 December 2016**, Cyberport, a government institution providing funding and ICT support to the existing firms and start-ups, launched Smart-Space Fintech.
  - The 35,000 square feet co-working space customised for Fintech start-ups and companies also offers an information lab, Fintech service corners and training rooms for start-ups, accelerators and partners to develop solutions and enhance business development.
  - Cyberport partners with global accelerator programs such as Accenture Fintech Labs, Microsoft Ventures and StartX.

CYBERSECURITY FORTIFICATION INITIATIVE (CFI)

- On **18 May 2016**, HKMA launched CFI to raise the level of cybersecurity of the banks in Hong Kong through a three-pronged approach:
  - Cyber Resilience Assessment Framework- to establish a risk-based framework for banks to assess their risk profiles and determine the resilience required;
  - Professional Development Program- to increase the number of qualified professionals in Cybersecurity; and
  - Cyber Intelligence Sharing Platform- a platform for banks to share intelligence and collaborate on cyber resilience.

Government Policy

PARTNERSHIPS

- On **17 January 2017**, the HKMA's Infrastructure Financing Facilitation Office (IFFO) announced a partnership with Clifford Chance, a major advisor in infrastructure deals.
  - IFFO operates as HKMA's infrastructure financing platform.
  - As a part of this engagement, Clifford Chance will be working with IFFO's partners to share knowledge and best practices.
  - They will also assist the country in attracting investments under China's **One Belt One Road** initiative.
- On **28 December 2016**, the HKMA announced collaboration with the Applied Science and Technology Research Institute (ASTRI) to launch the Fintech Career Accelerator Scheme (FCAS).
  - The scheme will enable them to cater to the increasing demand from the Fintech industry in Hong Kong.
  - The FCAS is supported by eleven banks and nine universities and provides internships for undergraduate and postgraduate students interested in developing their careers in the Fintech industry.
  - The program will also assist in creating the right mix of employee workforces for the banking sector.
- On **12 December 2016**, the HKMA and the UK Financial Conduct Authority (UKFCA) announced an agreement to enhance collaboration for promoting Fintech innovation.
  - As a part of this agreement, the two regulatory authorities will implement initiatives such as innovation projects, information exchanges, referral of businesses and will share best practices.
  - The collaboration hopes to synergise the two markets by enabling Fintech firms and financial institutions to extend their global reach and incorporate best practices from their foreign counterparts.

Regulatory Framework

- On November 2015, the Payment Systems and Stored Value Facilities Ordinance commenced operation. Under the new regime, the HKMA is empowered to implement a mandatory licensing system for multi-purpose stored value facilities and perform relevant supervision and enforcement functions.
- The HKMA, Securities and Futures Commission (SEC) and the Office of the Commissioner have set up Fintech dedicated platforms to ensure a balance between market demand and investors' understanding (and tolerance of risk) when introducing innovative financial products and services.

FINTECH SANDBOX

- In **September 2016**, the HKMA launched a Fintech Supervisory Sandbox to facilitate the pilot trials of Fintechs and authorised institutions, before they are launched on a larger scale, and to provide a faster approvals process for Fintech experiments.

BUSINESS ENVIRONMENT AND ACCESS TO SKILLS

Business Environment

- In 2017, Hong Kong ranked 4th in 'ease of doing business' by the World Bank, driven by factors such as rapid business incorporation and low start-up costs.
- The country registered a GDP of 1.9 percent in 2016 (in real terms), primarily driven by a 1.7 percent growth in exports.
- GDP in 2017 is projected to grow between 2-3 percent, supported by improvement in the external environment.
- Domestic demand will be supported by stable income and employment conditions.

SUPPORT TO NEW BUSINESSES

- Hong Kong has a free-enterprise, free-trade economy, where it takes approximately one and a half days to start a business.
- With nonintervention policy in the private sector already in effect, the government also offers commercial infrastructure and a sound legal and administrative framework.
- On 18 January 2017, the government announced the National 13th Five-Year Plan and the Belt and Road Initiative, which would generate new opportunities for Hong Kong in financial and professional services and innovation and technology (I&T).
  - The government also plans to enhance staffing for the Belt and Road Office to formulate and implement long-term strategies. It also plans to relax visa requirements to facilitate migration.
  - The government has also invested $US18 billion to enhance the IT ecosystem and plans to enhance tax and financial concession measures to attract IT enterprises.

Access to Skills

- Being a major financial hub in South East Asia, Hong Kong is able to attract skilled professionals. Its proximity to China also makes the country a lucrative business destination for multinational organisations.
  - In order to retain a skilled workforce, Hong Kong has already implemented a flexible visa policy.
  - According to the Hays Asia Salary Guide report published in 2016, the country maintains gender diversity, with women accounting for 49 percent of the workforce.

MEASURES IMPLEMENTED BY HONG KONG TO DEVELOP FINTECH TALENT

- To cater to the growing demand for talent and maintain its position as a global Fintech hub, local regulatory authorities, banks and universities have rolled out initiatives to develop talent.
- In December 2016, the HKMA and the Applied Science and Technology Research Institute (ASTRI) launched the Fintech Accelerator Scheme (FCAS).
  - The scheme offers up to one-year internships for undergraduate and postgraduate students and is supported by nine universities and 11 banks.
- SuperCharger, a Fintech accelerator program funded by Standard Chartered, offered mentorship to eight Fintech start-ups in 2016.
- The Chinese University of Hong Kong (CUHK) has also been actively involved in developing Fintech talent.
  - The Faculty of Engineering will launch a new four-year Fintech undergraduate program in the academic year 2017-18, with an intake of 30 students in the first batch.
  - Considered a first of its kind in Hong Kong, the program's objectives also include the development of leadership and entrepreneurial talent for the next generation.

ACCESS TO FUNDING AND START-UP ECOSYSTEM

Access to Funding

ACCELERATOR INCUBATOR PROGRAMS

- In October 2015, Standard Chartered Bank launched '**SuperCharger Fintech Accelerator Program**', to promote Fintech activities in Hong Kong.
  - Launched on 7 November 2016, the 12 week second edition of the programme, "2017 SuperCharger Fintech Accelerator 2.0" included eight start-ups.
  - The accelerator assists in company building, mentorship and advice in areas such as market entry, regulatory obligations and joint venture opportunities.
  - The event also offers fundraising for start-ups and the first edition of the program raised SG$150 million.
- **The DBS Accelerator** selects eight start-ups and assists them in accelerating their Fintech businesses The company is engaged in providing solutions in artificial intelligence, Big Data, banking, mobility and payments and SME banking solutions. It also aids the start-ups in receiving funding on Demo Day. Through program partners, including Amazon, IBM and KPMG, participants are given training and advice by industry experts.
- **The AIA Accelerator** 4.0, in collaboration with KPMG, conducts an 8-week program for up to six start-ups to receive assistance in developing their businesses. Last year AIA Accelerator start-ups received:
  - Mentorship from industry experts;
  - Opportunities for fund raising on the Investor Demo Day; and
  - A free Microsoft 3-year program for software, cloud services and joint marketing exposure and 12 months of business support, free training and online courses from Amazon.

Start-up Ecosystem

- Hong Kong Fintech Association:
  - A not-for-profit, membership based association consisting of companies that operate across the Fintech spectrum.
  - The association operates as a single point of access, enabling companies to get in touch with innovators, investors, regulators and policy makers.
  - It aims to support the development of Fintech regulation and to attract greater investment.
- Next Bank
  - A financial technology community which serves as a network for designers, entrepreneurs and executives and helps in the development of the financial services industry.
  - Last year they organised Asia's biggest Fintech conference and pitch competition, "The 2016 Fintech Finals", in collaboration with Fintech HK.
  - The winner of this competition receives $US10,000 in funding and has the opportunity to engage in a range of partnerships to enhance its offerings and footprint.
- Metta
  - An entrepreneur's club, located in the CBD, that connects people ideas and resources and regularly holds events to increase collaboration between companies operating across the Fintech spectrum.
- InvestHK Initiatives
  - Launched in January 2016, StartmeupHK runs an annual start-up festival.
  - In September 2016, InvestHK formed a dedicated Fintech team to support international start-ups, investors and R&D institutions to establish themselves in Hong Kong.
- Fintech Hong Kong
  - A single point of access providing information on Hong Kong's Fintech ecosystem; its database lists the start-ups and events occurring in Hong Kong.

INTERVIEW LIST

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The Committee for
Sydney

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