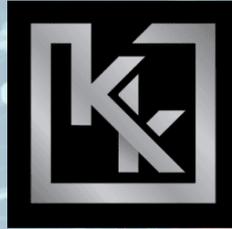


# Time Machine Investing in South East Asia

*Final submission*

INSEAD MBA 20J  
Private Equity AA Group 6

April 21, 2020



INSEAD

# Management Summary

- » **Chinese companies are widely regarded as pushing the technological and innovation frontier** as well as successfully **introducing and scaling new business models**. In many regions across the world and, in particular, South East Asia (SEA), similar technologies and business models seem to be adapted. There appears to be a **time lag between the successful adoption in China and elsewhere**, as, for example, significant time lags between China and South East Asia in the founding dates of successful startups can be observed.
- » In order to obtain a **comprehensive and unbiased perspective on this phenomenon**, we analyzed **past investments** across industries in China and SEA. We used the **funding amount as a proxy for the success of a particular industry**, assuming that a bigger funding amount is an indicator of investors' expectations of growth for that particular industry vis-à-vis new business models or technological innovation. As such, we identified **industries with no evidence of a time lag** (e.g., Internet, Software), **industries with evidence of a time lag, which are, however, already successfully established in SEA** (e.g., Financial Services, Media), and finally industries with **evidence of a time lag but without a successful adaption in SEA to date** (e.g., Healthcare, Education).
- » We identified several **underlying factors for successful time-machine investing** when analyzing Financial Services and Logistics as examples for industries with quantitative evidence of time lag and successful adoption in SEA. Differences in **macroeconomic developments** and in **public policies and regulations** resulted in delayed market opportunities for financial services and, hence, delayed funding. For **logistics, no evidence for a time lag** could be identified. The logistics industry in SEA is rather characterized by 'copycats' from China.
- » By applying the lessons learned on those industries, where a potential application of time-machine investing could be identified, we found that **this concept is most promising for Healthcare** due to a time lag in underlying critical success factors. For **PropTech**, SEA and China both are at the same stage of development and, hence, a **'copycat' model** appears more promising.

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II Funding trends

III Success factors of time-machine investing

IV Perspective on future time-machine opportunities

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# Chinese companies are widely recognized to push the technological frontier and to introduce new business models

## These are the seven retailers at the forefront of China's New Retail revolution

By [Rebecca Sentance](#) | June 24th 2019

SHARE



'New Retail'. 'Smart Retail'. 'Boundaryless Retail'. The evolution currently taking place in China's retail and ecommerce sector goes by a few different names, but in each case, it's characterised by the use of technology to merge online and offline commerce.

## Chinese tech companies are leading the new global innovation revolution

## How China is outperforming the US and Europe in technology and innovation

Ways through which China is leapfrogging in the world in all tech-related sectors

McKinsey Quarterly

## Three snapshots of Chinese innovation

February 2012 | Article



Chinese innovation is evolving in diverse ways and at an uneven pace across a range of different industries. Presented here are ground-level views from three of them: automobiles, semiconductors, and pharmaceuticals.

## How China is leading the world in tech innovation (and what the West can learn from it)



# South East Asian companies adopt business models and technologies from China

## E-commerce to bike shares: How Chinese firms went from copycat to copy that

Silicon Valley take note: in everything from mobile payment systems to news apps, businesses across Southeast Asia look to a new horizon for inspiration – China

1,435 views | Nov 17, 2019, 07:24pm EST

## The Copy And Paste Model That Pumped Up China Lives On In Southeast Asia

## Spotlight: Southeast Asian e-commerce boosted by Chinese expertise

## Southeast Asian Companies success model is copying from China



# How Southeast Asian Companies are Learning From China

Despite claims to the contrary, Southeast Asian companies aren't just copying Chinese business models, they're localizing them.

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# Key assumptions and principles that guide our quantitative analysis of funding trends in China and South East Asia



*We use **preqin** data, accessed through the INSEAD library, on past investments in China as SEA as basis for our quantitative analysis*

The **success of a company** is very frequently linked to the valuation it fetches. However, as valuations of startup companies are not made available most of the time, we needed a different parameter to determine success

In our analysis, we decided to use **funding amount as the parameter to determine the success of a particular industry**. The reason behind this decision is a bigger funding amount is usually an indicator of investors' expectations of growth for that particular industry. In particular for seed/angel investors, their IRR is usually determined by subsequent rounds of funding.

We ran a **systematic analysis** to compare the top 10 most funded industry in China against the top 10 most funded industry in SEA at a later period to determine if there is a time lag. We ran this analysis across a 5 years lag

# Segmentation of Industries based on quantitative approach

## Methodology

An **industry that shows evidence of time lag concept** would be an industry that exhibits the following evidence:

- The **industry is amongst the top 10 most funded industry in China between 2010-2014 but not in SEA between 2010-2014**
- The **industry is subsequently amongst the top 10 most funded industry in SEA between 2015-2019**

We **categorized each industry** with a colour code (red, amber, green) based on the outcome of the quantitative analysis, which is available in the next slide

We created a new parameter called "GDP adjusted delta in funding" to **harmonize the difference in the size of economies between China and SEA**. To explain, if China's GDP is 5 times the size of SEA's GDP, we assume that in the short to medium term, the funding amount received for a particular industry in SEA should ideally be approximately 5 times smaller than the funding amount in China



## Industry segmentation



Industries in this category shows **no sign of time investing**. These industries were already well funded in SEA the same time it was well funded in China



Industries in this category shows **sign of time investing**. These industries were not amongst the most funded industries in SEA when it was amongst the most funded in China. These industries subsequently took off in SEA and are now amongst the top 10 most funded industry in SEA



Industries in this category are industries that we should deep dive into to evaluate **potential for time investing concept** as these industries are amongst the most funded industries in China today but not yet in SEA.

# We focus our quantitative analysis on the biggest industries with more than \$5bn funding in China between 2015-2019

In USD mn, 2015 – 2019



Primary Industry	China		SEA		Delta		GDP Adjusted Delta Funding	Growth Runway % of current funding
	Ranking	Funding	Ranking	Funding	Ranking	Funding		
Internet	1	79.052	2	9.691	1	69.362	7.750	80%
Financial Services	2	44.259	4	1.703	2	42.555	8.061	473%
Software	3	37.103	3	2.041	0	35.061	6.144	301%
Transportation Services	4	36.296	1	11.384	-3	24.913	-3.376	-30%
Media	5	19.993	6	716	1	19.277	3.694	516%
Automobiles, Other Vehicles & Parts	6	17.983	40	0	34	17.983	3.967	n/a
Retail	7	12.641	7	698	0	11.943	2.090	299%
Consumer Products	8	10.680	9	329	1	10.351	2.027	616%
Education/Training	9	8.897	13	249	4	8.649	1.714	689%
Business Support Services	10	8.893	17	169	7	8.724	1.793	1060%
Consumer Services	11	8.877	15	211	4	8.667	1.748	830%
Pharmaceuticals	12	7.044	16	196	4	6.848	1.358	693%
Logistics	13	6.473	10	310	-3	6.163	1.118	361%
Biotechnology	14	6.338	18	114	4	6.224	1.284	1127%
Travel & Leisure	15	6.288	5	1.054	-10	5.234	333	32%
Healthcare	16	5.587	22	69	6	5.519	1.164	1697%
		316.405		28.933		287.472	40.872	

Description of Primary Industry in Appendix

■ No evidence of time lag, already successful in SEA today
 ■ Evidence of time lag, already successful in SEA today
 ■ Not yet successful in SEA, potential for investment

## Key Takeaways



- We don't see much opportunity in the Internet, software, and transportation services industry as these industries did not exhibit evidence of funding time lag between China and SEA. On top of that, these industries are also very successfully funded already in SEA today
- Industries colour coded in amber like financial services, media, etc. shows evidence of time lag. In the following pages we will select a few of these industries and perform a qualitative deep dive to also find evidence of time lag from a qualitative perspective
- Industries colour coded in green like Education/Training and Automobiles are not yet well funded in SEA today and we need to further analyze these industries in order to evaluate their potential for investment



# To further examine time-machine investing, established industries with a funding time lag and those without a time lag are evaluated

## Quantitative analysis

Based on the prein data set, funding trends could be evaluated and funding time lags could be identified

To further validate these findings, in the following two sections we conducted a qualitative analysis of select industries, which were **jointly decided upon with KK Fund** who picked 3 from the list and 1 (property tech) outside the list.

FUNDING TRENDS

We focus our quantitative analysis on the biggest industries with more than \$5bn funding in China between 2015-2019

In USD mn, 2015 – 2019

Primary Industry	China		SEA		Delta		GDP Adjusted Delta	Growth Runway % of current funding
	Ranking	Funding	Ranking	Funding	Ranking	Funding		
Internet	1	79,052	2	8,091	-1	69,302	7,750	30%
Financial Services	2	44,256	4	1,703	-2	42,856	8,091	47%
Software	3	37,103	3	2,041	0	35,061	6,144	30%
Transportation Services	4	38,208	1	11,384	-3	24,913	-3,378	-30%
Media	5	19,993	6	716	1	19,277	3,694	51%
Automobiles, Other Vehicles & Parts	6	17,863	40	0	34	17,863	3,907	7%
Retail	7	12,841	7	698	0	11,845	2,000	20%
Consumer Products	8	10,680	9	320	1	10,361	2,027	61%
Education/Training	9	8,897	13	249	4	8,849	1,714	69%
Business Support Services	10	8,893	17	160	7	8,724	1,793	100%
Consumer Services	11	8,877	15	211	4	8,867	1,748	83%
Pharmaceuticals	12	7,044	16	195	4	6,848	1,358	63%
Logistics	13	6,473	10	310	-3	6,163	1,119	30%
Biotechnology	14	6,338	18	114	4	6,224	1,284	112%
Travel & Leisure	15	6,238	5	1,094	-10	5,244	333	32%
Healthcare	16	5,537	22	69	6	5,519	1,104	100%
		316,405		28,933		287,472	40,872	

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DESCRIPTION OF PRIMARY INDUSTRY IN APPENDIX

■ No evidence of time lag, already successful in SEA today ■ Evidence of time lag, already successful in SEA today ■ Not yet successful in SEA, potential for investment

SOURCE: Team analysis, prein



Success factors in time-machine investing

## Chapter III



Exploration of future time-machine investing opportunities

## Chapter IV

Examination of underlying factors to derive root causes for delay in funding

Exploration of investment opportunities in industries without concrete conclusion from quantitative analysis

Financial Services

Logistics

Healthcare

PropTech

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# Fintech Snapshot in China



### Market Size and Growth

- Value of fintech deals in China in 2018 was USD\$25.5 billion, 9X over the previous year
- Accounts for 46% of all fintech investments globally in 2018
- 3 largest deals, Alipay, Du Xiaoman and Lufax together accounted for more than 75% of total deals

### Key Market Trends

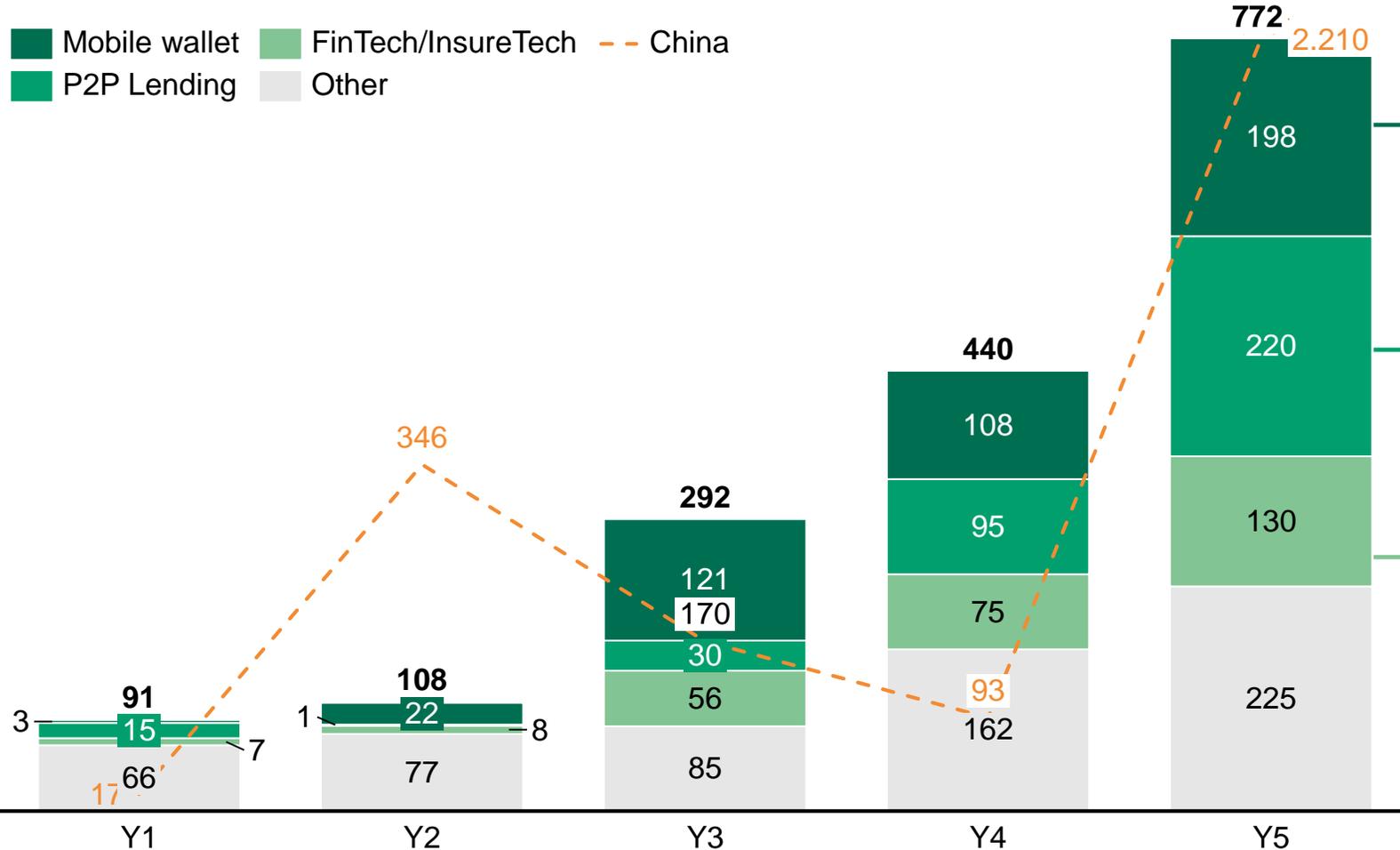
- Space is dominated by a few players who are active across multiple segments in the Fintech industry
- Platform players (Wechat) and ecommerce giants (Alibaba, JD) have inherent advantage due to strong user base, As platform acquires users, they morph and expand to include more aspects of the user's financial needs
- Other disruptors are gaining momentum in specific segments of the market but P2P fall of 2018 has far reaching impact on Fintech in China



# Financial services funding in SEA mainly allocated to 3 sub-industries with a focus on Indonesia, Philippines and Singapore

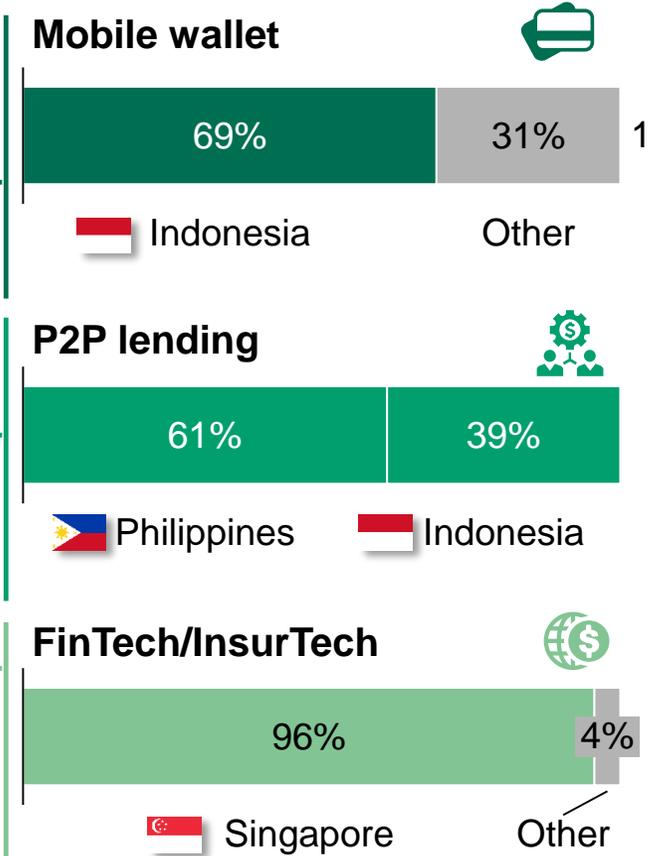
## Financial services funding in South East Asia per sub-industry and China

In USD mn, 2015-2019 for SEA, 2010-2014 for China



## Funding by SEA country

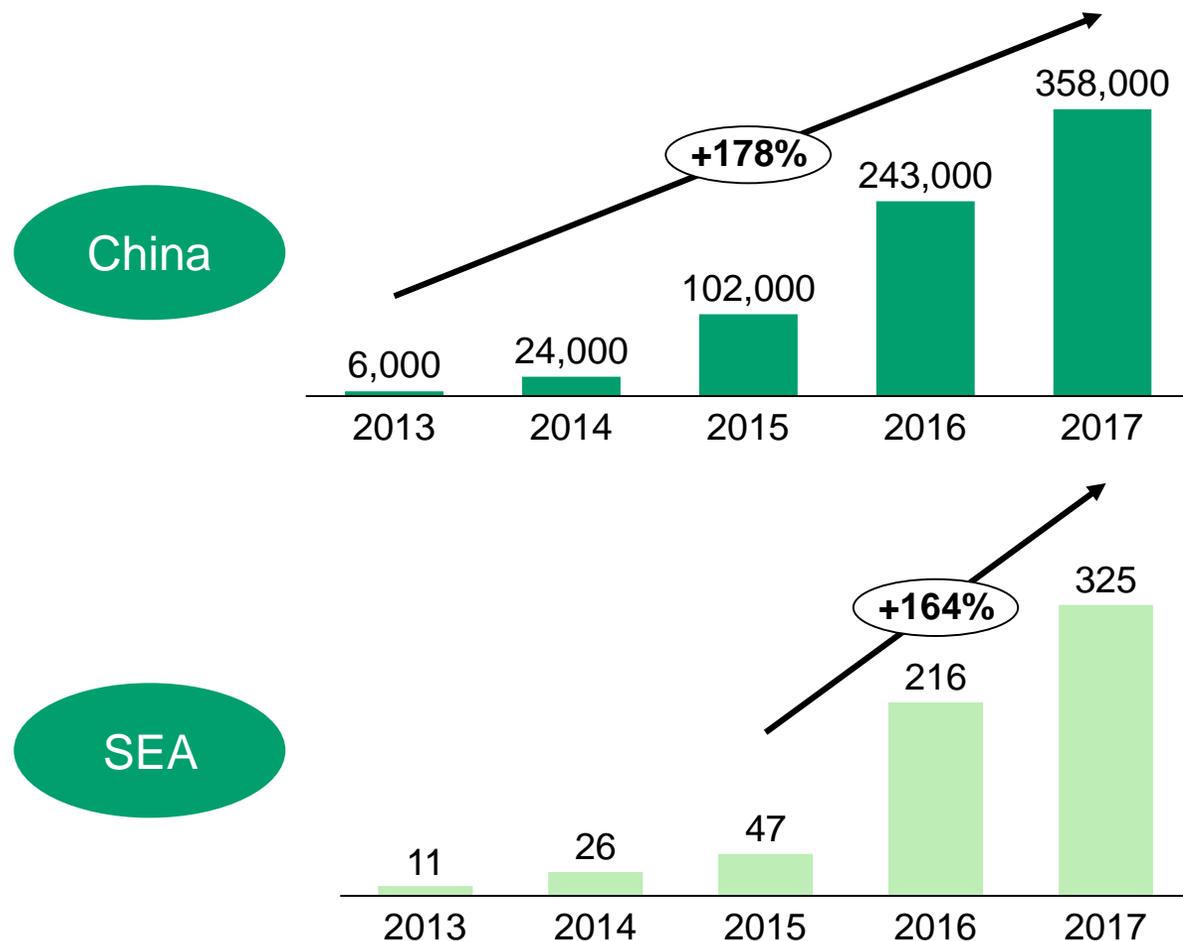
In percent of total funding, 2015-2019



# Taking example of P2P Lending, the lag in transaction volumes shows that growth in SEA took off much later

## P2P Transaction Volumes

In USD mn 2013 - 2017 for SEA & China



## Key Characteristics Shared By Markets

### Access to conventional banking services

As at 2014, more than half of the adult population of ASEAN does not have access to banking services, with more than 264 million adults in Southeast Asia are unbanked.

Survey done in 2017 in China showed that nearly 46% of individuals were underbanked or unbanked

### Smartphone penetration

SEA ranks third globally in terms of the number of mobile users, behind only China and India. ASEAN ranks fourth globally in terms of the number of internet users, behind China, India and the US

### Evolving regulatory environment

Most ASEAN countries including Indonesia have nurtured a supportive environment for P2P including regulations.

Up until 2018, China was relatively supportive of P2P with limited regulations in the space

# The time lag in funding and adoption in each sub-industry is mainly driven by macroeconomic factors and regulation

x Detailed next

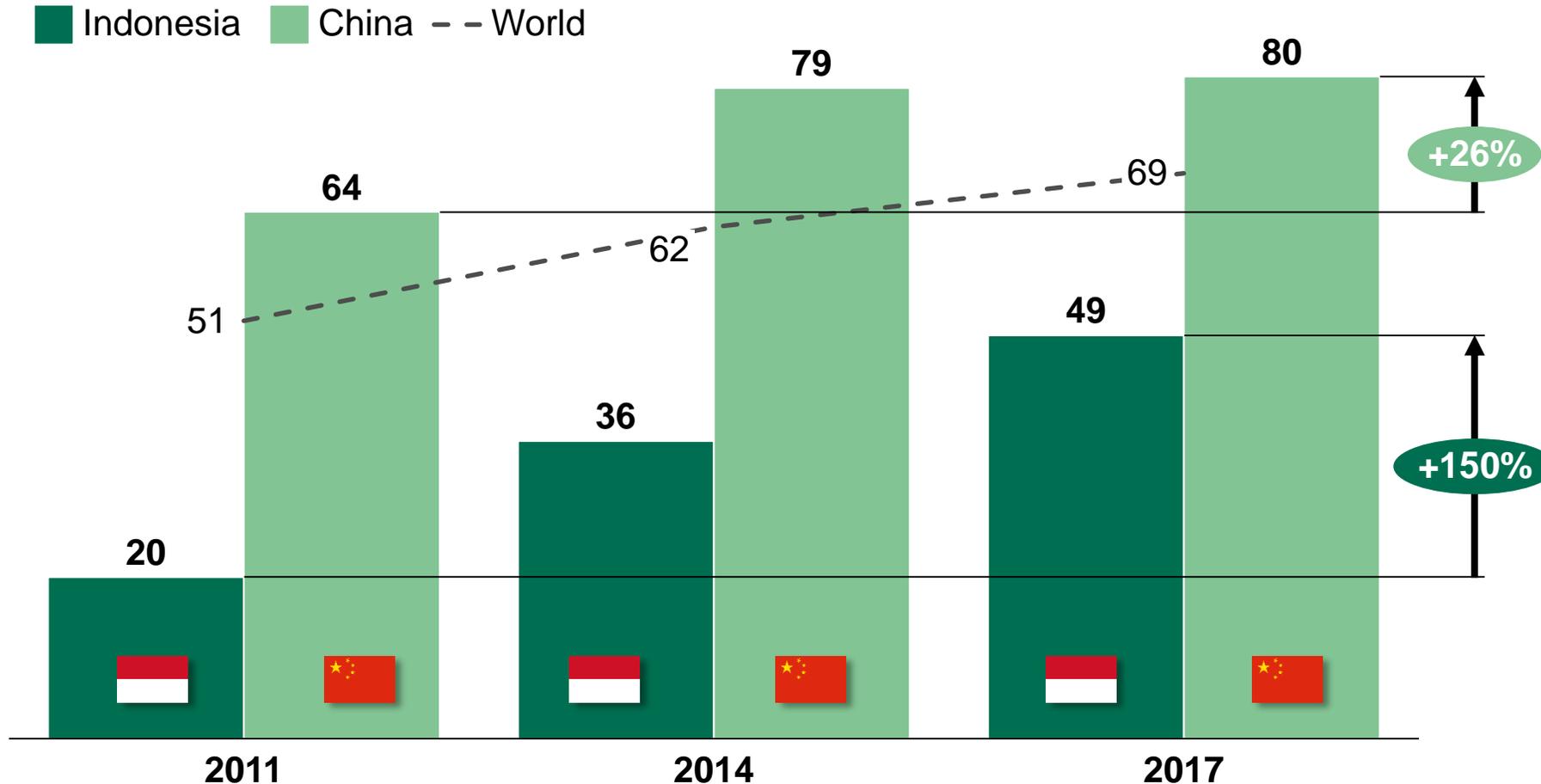


Sub-industry	Success factor for market adoption	Reasoning
<b>Mobile wallet</b>  	<ol style="list-style-type: none"> <li>1 <b>Banking penetration</b></li> <li>2 <b>Smartphone penetration</b></li> <li>3 <b>eCommerce adoption</b></li> </ol>	<p>Having a bank account greatly diminishes the value-add of a mobile wallet, hence, unbanked population is crucial for adoption of mobile wallets</p> <p>To access a mobile wallet, most consumers use their smartphone, hence, smartphone penetration is an important pre-requisite for the adoption of mobile wallets</p> <p>eCommerce transactions are a major use case of mobile wallets in emerging markets, hence a higher eCommerce adoption also creates a higher need for a mobile wallet</p>
<b>P2P lending</b>   	<ol style="list-style-type: none"> <li>4 <b>Banking penetration</b></li> <li>5 <b>Smartphone penetration</b></li> <li>6 <b>Public policy and regulation</b></li> </ol>	<p>People with no bank account largely benefit from P2P lending as this business model bypasses incumbent financial institutions</p> <p>Smartphones replace the physical outlets of incumbent financial institutions and thus are crucial in the adoption of P2P lending</p> <p>Public policy and regulation are major building blocks of establishing P2P lending and can prevent the adoption of novel business models</p>
<b>FinTech/InsurTech</b>  	<ol style="list-style-type: none"> <li>6 <b>Public policy and regulation</b></li> <li>7 <b>Consumer demand</b></li> </ol>	<p>Public policy and regulation are major building blocks of establishing FinTech and InsurTech companies and can prevent the adoption of novel business models</p> <p>Changing from a 'traditional' bank account to a FinTech service provider requires trust and hence the consumers' appetite towards these new service offering requires</p>

# 1 The population with access to a bank account in Indonesia grew significantly from '11 to '14 while China was already saturated

## Population with access to a bank account

In Percent, Adults (15+) who report having a bank account or use a mobile money service



## Key takeaways

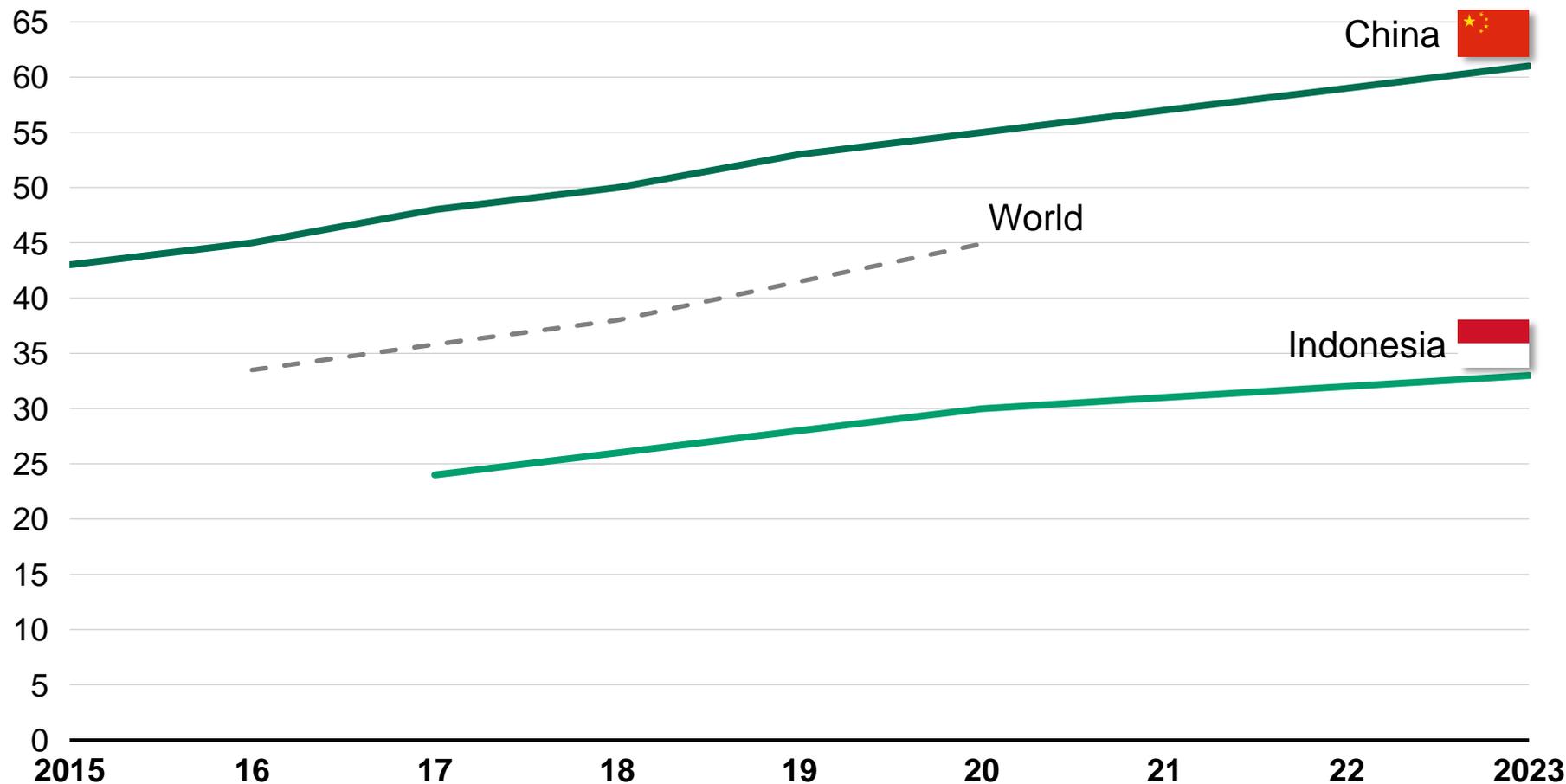


- The **Indonesian population with access to a bank account** was significantly below the world average in 2011 due to the difficulty of accessing banking facilities and is **converging towards the world average** over time, providing a huge opportunity for new service providers
- The **Chinese population converged much earlier**, also due to Mobile Wallets

## 2 Smartphone penetration in Indonesia is below the global average and forecasted to stay below Chinese penetration in '15

### Smartphone penetration rate

In percent of total population<sup>1</sup>



<sup>1</sup> Data not available for all years and geographies

SOURCE: Statista Digital Market Outlook

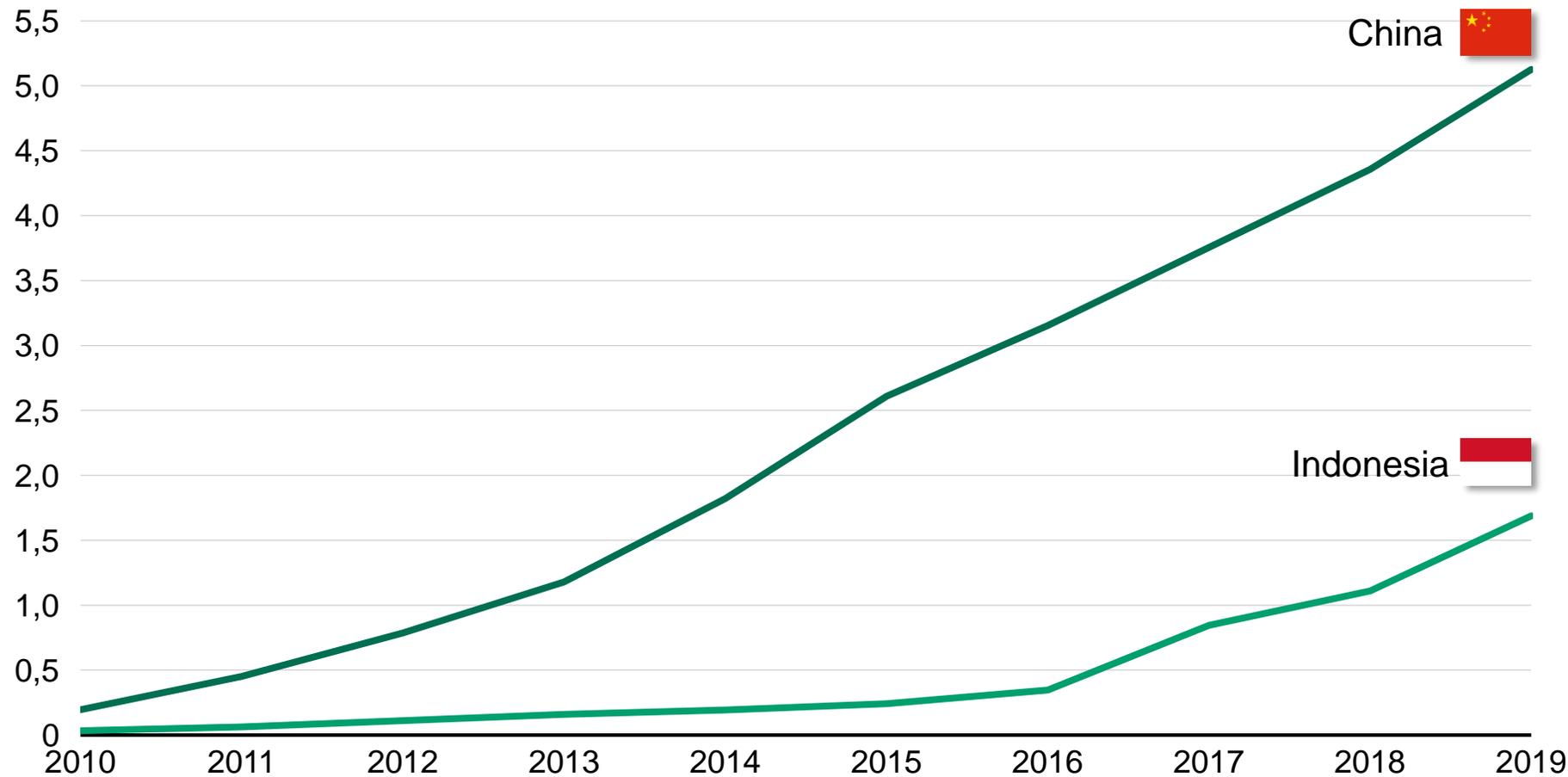
### Key takeaways



- **Smartphone penetration in China** has always been above the global average, which constitutes a very good foundation to **adopt mobile wallets early on**
- **Indonesia** historically had a penetration rate below the global average because the smartphone price does not correlate with GDP, and thus, **reached critical mass for mobile wallet adoption later**

### 3 eCommerce, a major use case of mobile wallets, gained traction in Indonesia significantly later than in China

#### eCommerce GMV share of GDP In percent



#### Key takeaways

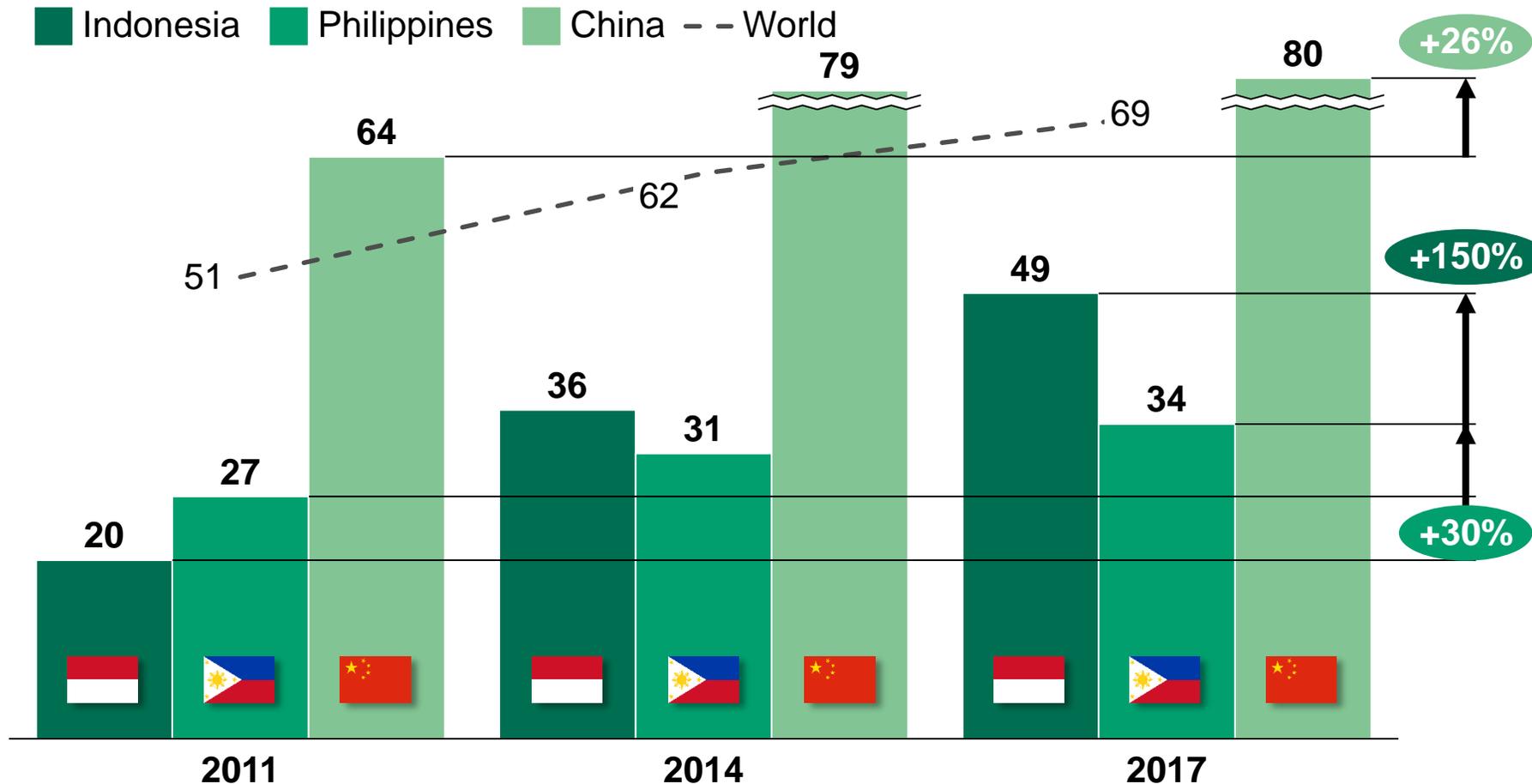


- **Chinese consumers have been early adopters in eCommerce** and thus, new business models could successfully introduced and scaled well before their adoption in Indonesia
- **eCommerce in Indonesia lacks 5 years behind China due to the economy and infrastructure development**, contributing to the **late adoption of mobile wallets**

## 4 The unbanked population in the Philippines is even below Indonesia, creating demand for basic services like P2P lending

### Population with access to a bank account

In Percent, Adults (15+) who report having a bank account or use a mobile money service



### Key takeaways

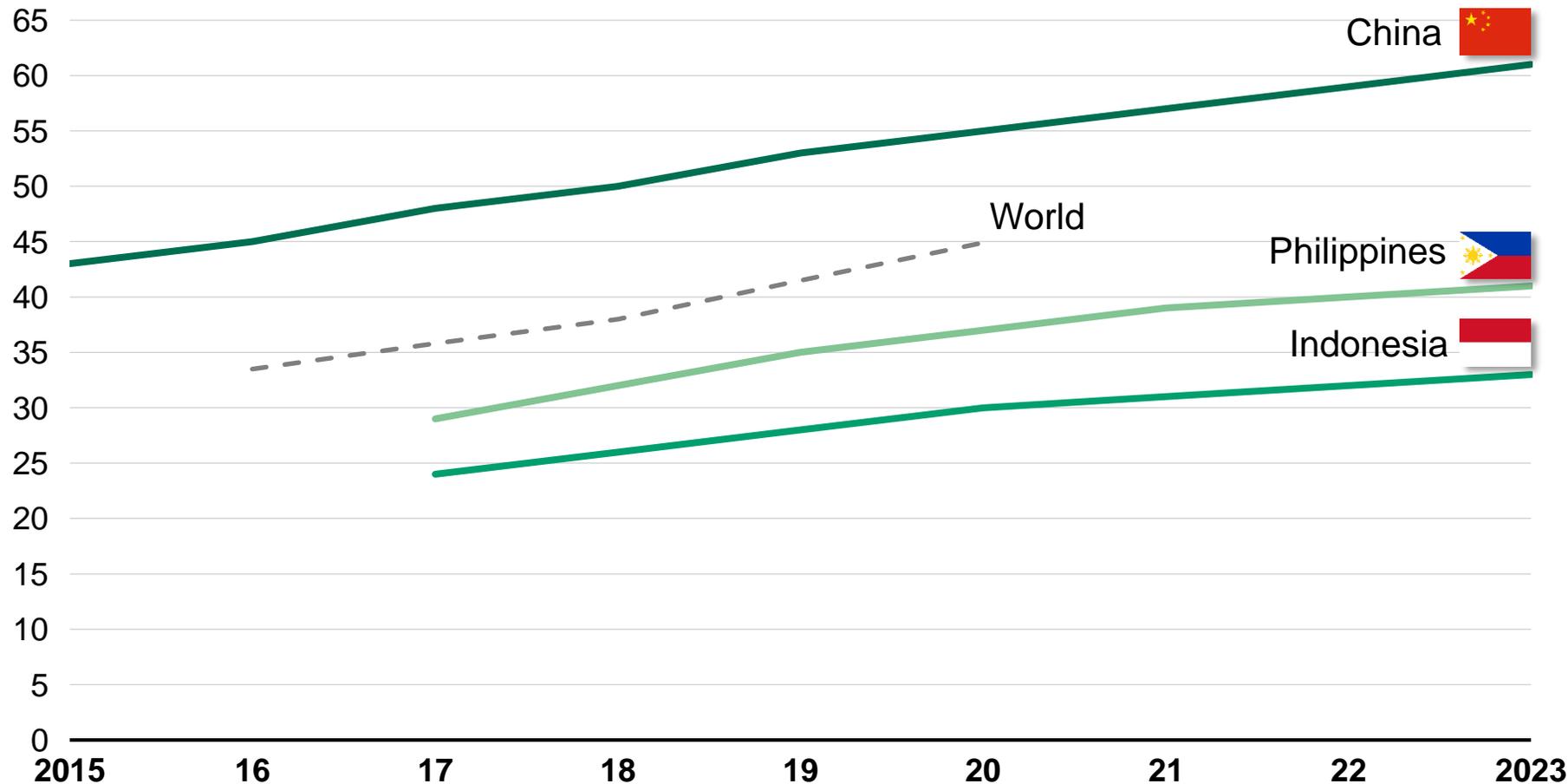


- Population with access to a bank account is significantly lower in the Philippines, compared to its peer Indonesia but also compared to the worldwide average and China
- In light of overall economic progression, this large unbanked population needs basic banking services, such as P2P lending and therefore, the market opportunity emerged later than in China

## 5 Smartphone penetration in the Philippines is higher than in Indonesia and provides infrastructure for P2P lending market

### Smartphone penetration rate

In percent of total population<sup>1</sup>



<sup>1</sup> Data not available for all years and geographies

SOURCE: Statista Digital Market Outlook

### Key takeaways

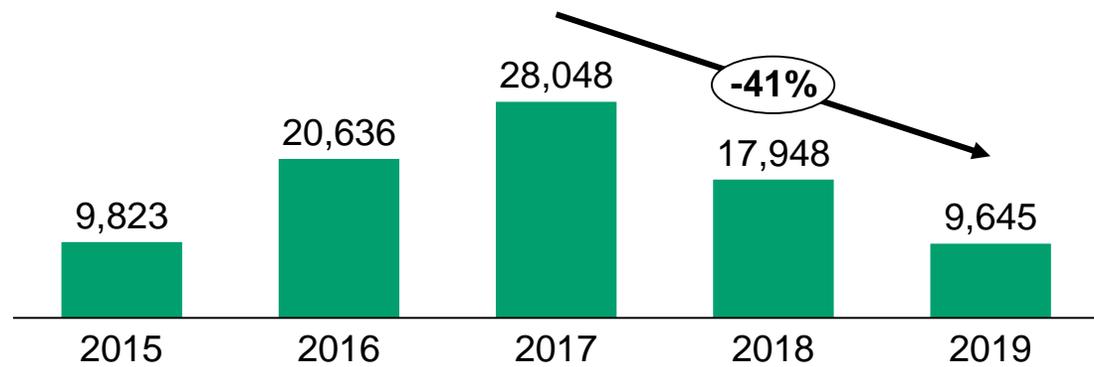


- Philippines has a higher smartphone penetration than its peer Indonesia
- Smartphones provide the technical consumer-facing infrastructure for P2P lending
- However, adoption lags behind China, where the market opportunity emerged much earlier, resulting also in earlier funding in P2P lending companies

## 6 An evolving regulatory landscape shows that Indonesia lags China in P2P but could be a more sustainable playing field

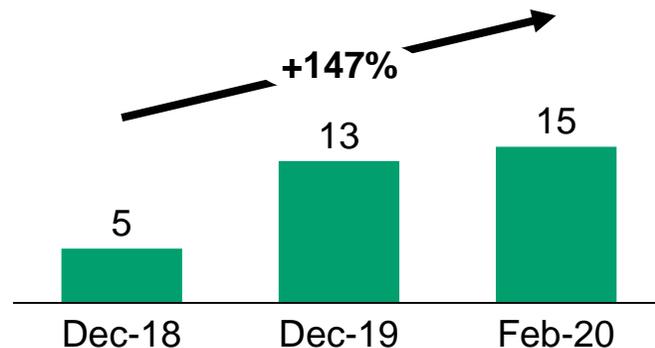
### P2P Transaction Volumes

in RMB bn 2015-2019 for China



### P2P Outstanding Loans

in RP tn for Indonesia



### Key takeaways

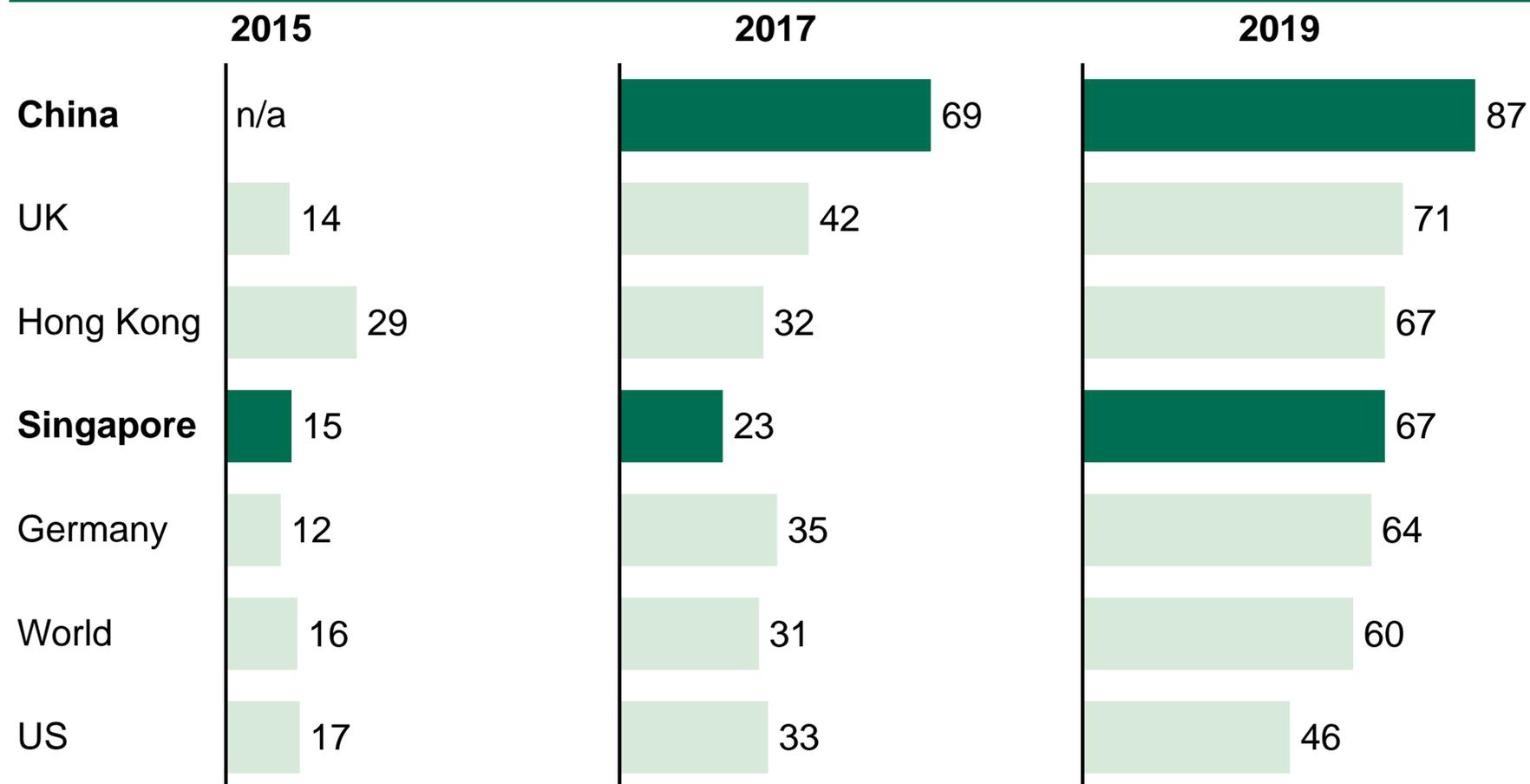


- **Downward trend since 2018 in China shows that regulatory impact is significant.** Scandals and news regarding Ponzi schemes lead to Chinese government stepping. All existing peer-to-peer (P2P) lending platforms must become small loan providers within two years
- **Conversely, favorable regulatory environment in ASEAN could help the industry flourish sustainably.** Governments have focussed on preempting fraud by creating a balanced regulatory standards system with a zero tolerance approach to illegal lending following experience observing China

# V FinTech was adopted earlier and faster in China compared to the rest of the world and especially Singapore

## FinTech adoption

In percent, share of FinTech users in digitally active population



## Key takeaways



- **China** has maintained the **leading position** for Fintech globally
- Most countries **only recently caught up** with China
- Adoption in **Singapore** was below the global average in 2015 and 2017 and **only recently caught up** in 2019. The reason could be that many traditional institutions has built FinTech elements in their existing products, so customers do not need to switch to others

# Despite a funding time-lag, the examined sub-industries were adopted due to convergence of underlying success factors

## Sub-industry

## Reasons for delayed adoption in SEA

### Mobile wallet



The Indonesian population with access to a bank account is converging towards the world average over time while Chinese population converged much earlier



Smartphone penetration in China has always been above the global average, while Indonesia has historically had a penetration rate below the global average



Chinese consumers have been early adopters in eCommerce while eCommerce in Indonesia lacks approximately 5 years behind China, contributing to the late adoption of mobile wallets

### P2P lending



The Indonesian population with access to a bank account is converging towards the world average over time while Chinese population converged much earlier



Smartphone penetration in China has always been above the global average, while Indonesia has historically had a penetration rate below the global average



An evolving regulatory landscape shows that Indonesia lags China in P2P but could be a more sustainable playing field

### FinTech/InsurTech



An evolving regulatory landscape shows that Indonesia lags China but could be a more sustainable playing field



China has maintained the leading position for Fintech globally while adoption in Singapore was below the global average in 2015 and 2017 and only recently caught up in 2019

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# Logistics Snapshot in China



## Market Size and Growth

- Industry revenue increased at a CAGR of 6.8% from RMB5.7 Trillion in 2011 to RMB7.9 Trillion in 2016.
- Traffic wise, Road freight volume account for over 70% of all the goods transported as of 2018
- Logistics cost as percentage of GDP dropped from 18% in 2013 to 14% in 2019, indicating the increase in operation efficiency

## Key Market Trends

- Investment grown exponentially from 2013 to 2017. The growth slowed in 2018
- Four major investment areas: contract logistics, small order freights, warehouse automation, and express
- Logistics unicorns, such as Manbang Group, JD.com etc have emerged in China market

# Logistics Common Business Models in China

## Warehousing

- Warehouse automation
- Warehouse lending
- E-commerce warehouse solution
- Packaging
- Express cabinet

## Cross Boarder

- Custom clearance
- International freight
- E-commerce

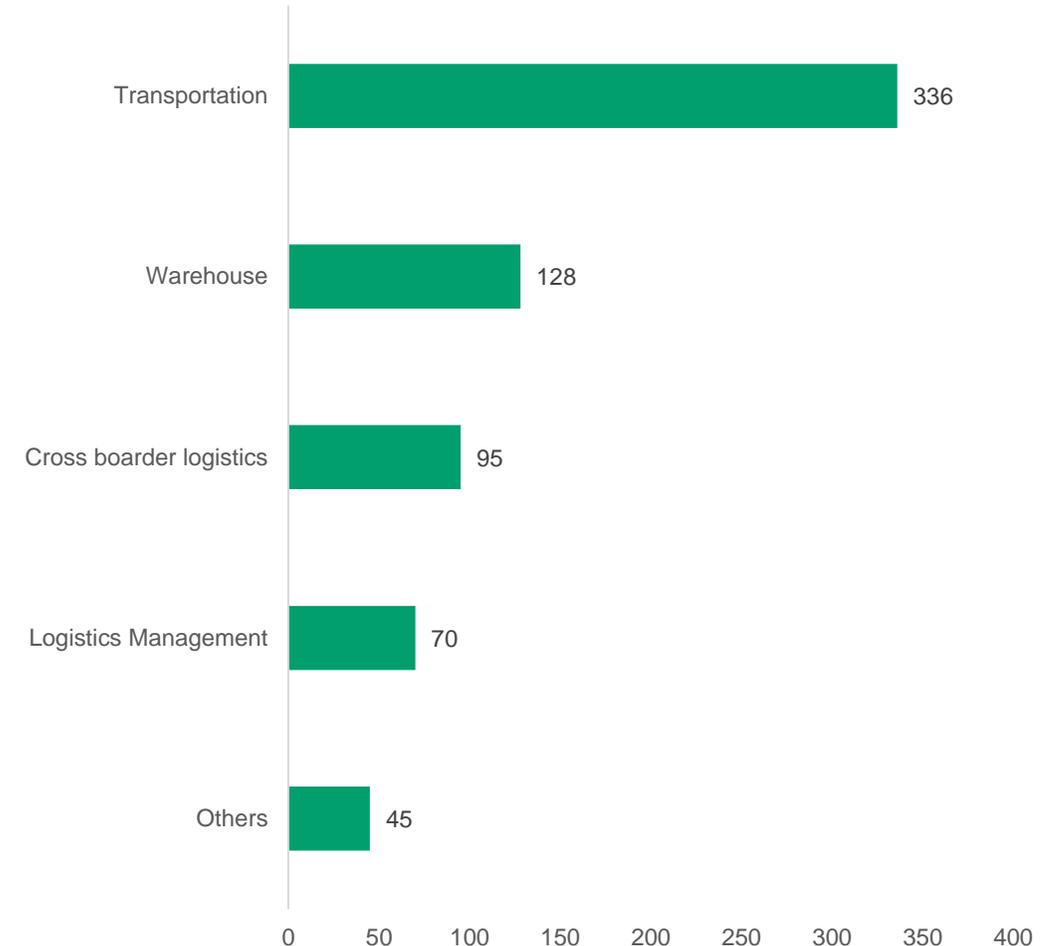
## Transportation

- JIT delivery
- Full truckload freight
- Small order freight
- Express
- Last mile delivery
- Truck hailing platform

## Logistics Management

- 3<sup>rd</sup> party logistics
- Transportation management
- Logistics information management system
- Logistics finance

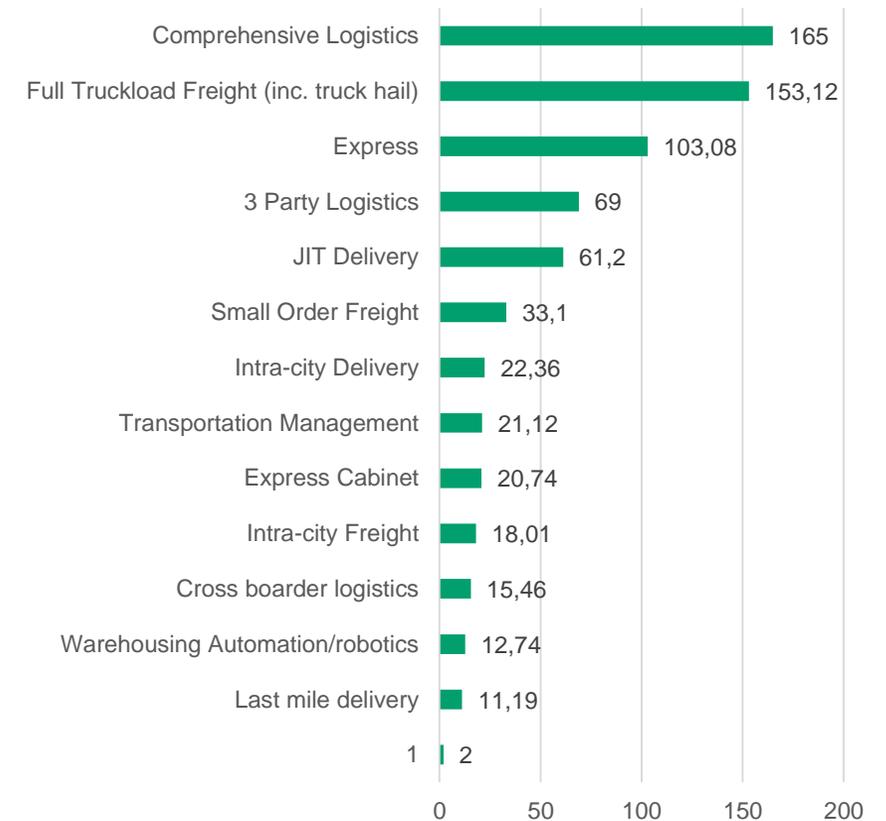
Total No. Of Funding in China 2011-2019



# China Logistics Sub Industry Market Trends

Industry	Market Size in 18' (rmb)	Growth 18-23 CAGR	Scale up potential	Barriers to entry	Regulation	Investment Potential
Express	600 billion	15%-20%	Medium	High	Supportive	High investment potential
Full Truck Freight	3 trillion	~5%	Low	Medium	Supportive with limitation	Low investment potential
Truck Hailing	~1 trillion	15%-20%	High	High	Supportive with limitation	High investment potential
Small Order	1.6 trillion	10%-15%	Low	Medium	Supportive	Medium investment potential
Intra-city Freight	900 billion	5%-7%	Medium	Medium	Supportive	Medium investment potential
JIT Delivery	100 billion	25%-3-%	Low	High	Supportive	Medium investment potential

2018 Investment Made (RMB 100 million)



# Key Logistics Market Trends in SEA



Country	Fleet Management	Route Optimization	Market Place	Comprehensive Logistic	Venture Capital
	Raxel Telematics, versafleet, SKYFY Technology	Yojee, BASERIDE TECHNOLOGIES	HAULIO, 20cube, zyllem, FREIGHTKART	spcommerce, LAZADA ELOGISTICS	UNBOXED, MOMENTUM, Singtel innov8
	OneStepLogistics	andalin, ritase.com, kargo, shijper	PORTER, Paket ID	MDI	METRA DIGITAL INOVASI
	KATSANA	easyTravel, Boon4	ezbuy		
		GIZTIX, deliverree	acornmerce, N-SQUARED eCommerce	AddVentures by SCG	
		ABIVIN	Shiphongnhanh.com.vn, LOGIVAN, ECO TRUCK	TIKI.VN	
	SPINGINE CORPORATION	XLOG, INTELUCK	BLACKARROW		

## Key Market Trends

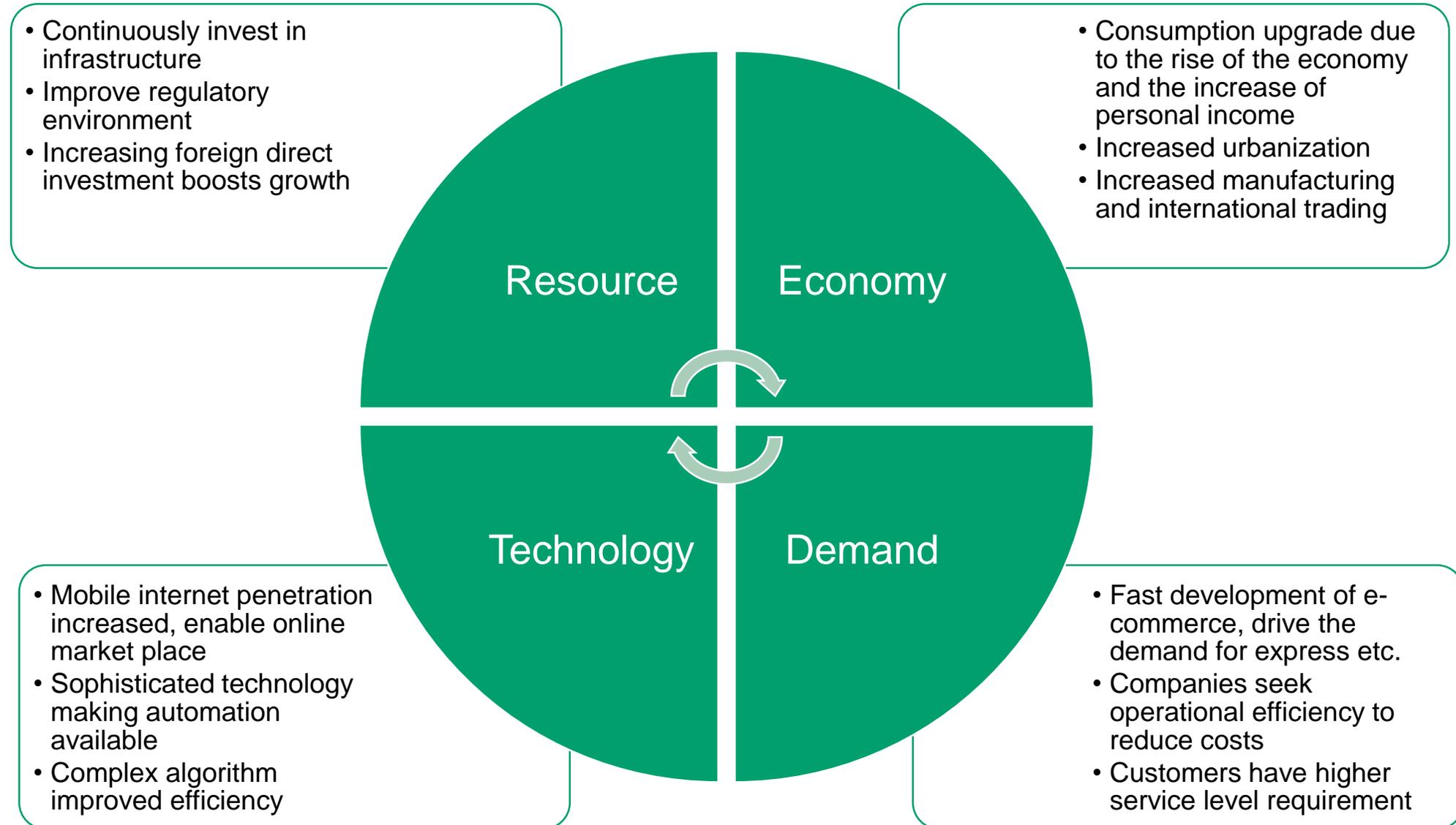
- Drivers' smart phone can be used as sensor and media for data exchange
- Based on real time orders and resource to predict demand and supply
- Using online platform to promote share mobility
- Using online platform to create mobile eco-system
- Traditional logistics firms explore CVC

## Key Investment Area

- Tier II city end to end comprehensive logistics provider
- Local fulfillment center (in tier II cities mainly)
- Deep tech area, providing cutting edge service to e-commerce platform
- Last mile delivery, with 30% CARG
- Cross boarder logistics

	B2B	B2C
	GIZTIX, honestbee, INTELUCK	ninja van, SOK, CHAN, LINE, alpha, Send, Shipyour, MYCLOUD
	aCommerce, trukita, BisTip, INTELUCK	deliveeree, LALAMOVE, kargo.co.id, Triplogic, GOJEK, zyllem, SICEPAT
	shiplyst, honestbee	'IAULIO, THE LORRY, FetchMe, QOURIER, MOOVAZ
	LOGIVAN, gido, ECO TRUCK	LALAMOVE, GHN, AhaMove, Grab, FILO BIRD NIGRE, GiaoHangTietKiem.vn
	honestbee	ninja van, THE LORRY, GO GET, zyllem, neon Runner, DropItLorry
	INTELUCK, Mober	LALAMOVE, ninja van, Mober, City Delivery, Grab

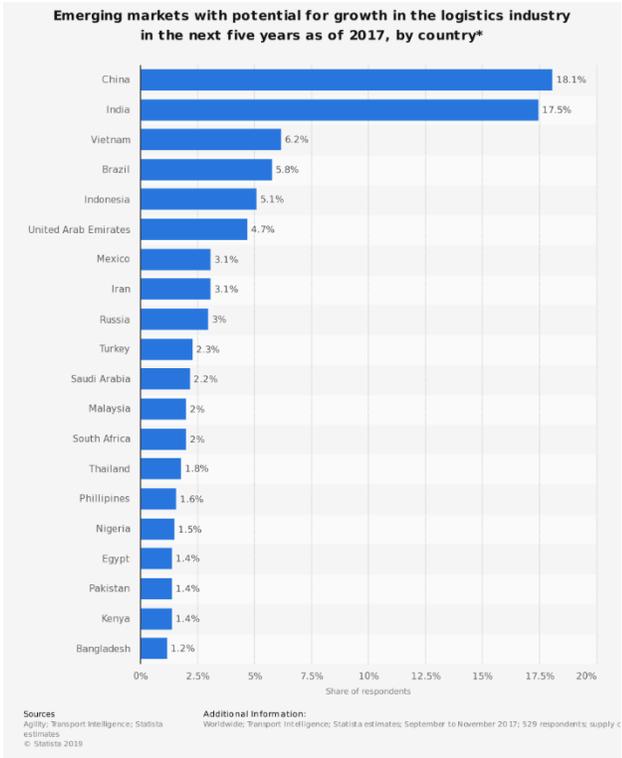
# Factors driving transportation growth in SEA similar to China



# Vietnam has the largest potential

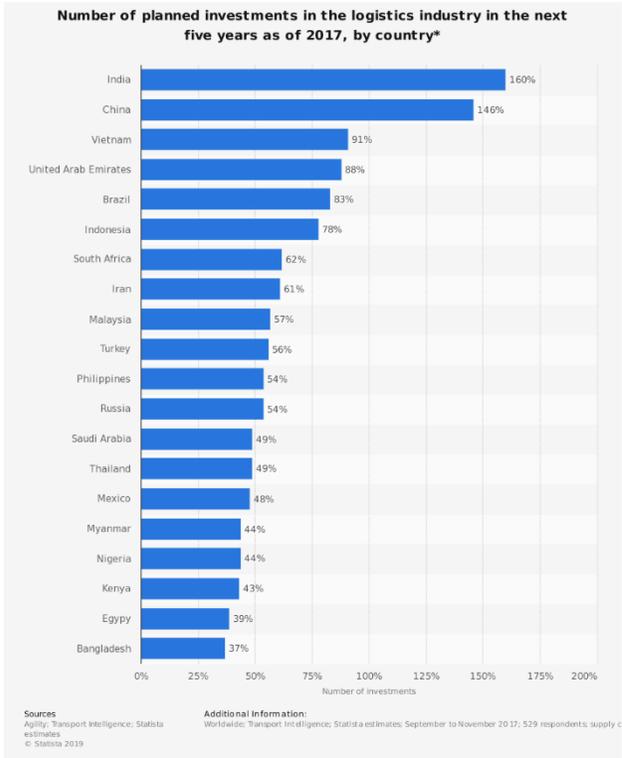
## Potential for Growth

- The major markets with potential to grow: Vietnam and Indonesia. 25% of Vietnam's GDP comes from logistics



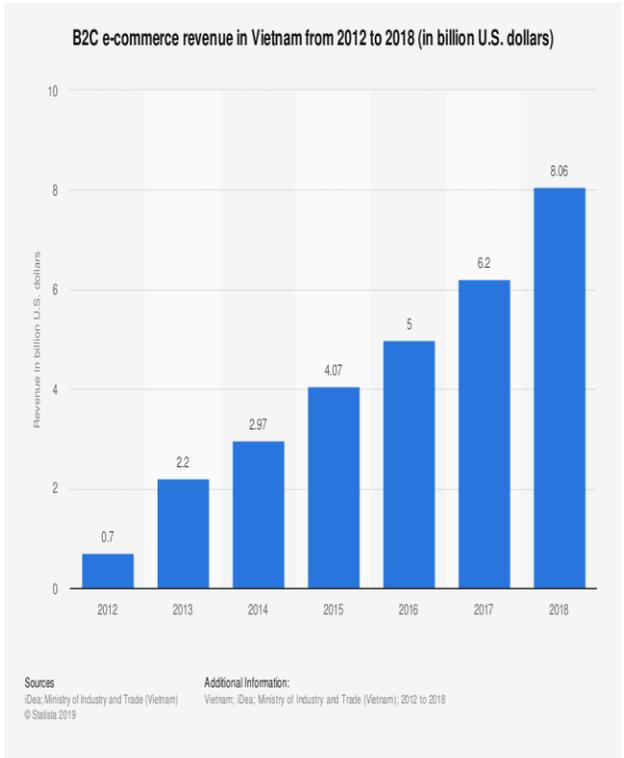
## No. of Planned Investment

- Vietnam has 91 projects, the third largest number of planned investment in logistics industry after China and India



## Exponential Growth in E-Com

- Ecommerce growth is exponential in Vietnam, a perfect driver for logistics growth



# Vietnam & China Comparison



	China	Vietnam
Resource	<ul style="list-style-type: none"> <li>Roadway growth 4.1 million km in 2011 to 4.6 million km in 2015, 3% CAGR</li> <li>FDI increased from 123 billion in 2013 to 135 billion in 2015, 5% CAGR</li> <li>Regulation support the development of express and other logistics</li> </ul>	<ul style="list-style-type: none"> <li>New express way growth 2703 km around 10% from 2016 to 2020</li> <li>FDI increased from 15 billion in 2015 to 38 billion in 2019, 26% CAGR</li> <li>Vietnam allows foreign investors to establish logistics firm to boost development</li> </ul>
Economy	<ul style="list-style-type: none"> <li>Urbanization rate increased from 50% in 2011 to 55% in 2015</li> <li>Disposable income increased by 50% from 2011 to 2015</li> <li>International trade volume increased 30% from 2011 to 2015</li> </ul>	<ul style="list-style-type: none"> <li>Urbanization rate increased 10% from 2015 to 2019</li> <li>Disposable income increased around 70% from 2015 to 2019 at around 1900 USD/yr</li> <li>International trade volume increased by 50% from 2015 to 2019</li> </ul>
Technology	<ul style="list-style-type: none"> <li>China smartphone penetration rate is around 50% in 2015</li> <li>Automation technology and IoT technology had been fast growing</li> </ul>	<ul style="list-style-type: none"> <li>Vietnam smartphone penetration rate is around 50% in 2019</li> <li>Accessible to advanced technologies such as AI, IoT, and automation</li> </ul>
Demand	<ul style="list-style-type: none"> <li>Ecommerce trading volume had a CAGR of 35% from 2011 to 2015</li> <li>Customers prefer better and quicker deliver service</li> <li>Companies seek higher operational efficiency</li> </ul>	<ul style="list-style-type: none"> <li>Ecommerce trading volume had a CAGR of 25% from 2015 to 2018</li> <li>More customers shop online and prefer faster delivery</li> <li>Companies seek higher operational efficiency</li> </ul>

# There is a potential time lag in transportation sector



- Transportation sector growth trends in China before 2018 is very similar to the current trends in Vietnam, which indicates there could be a time lag. However, the trends in both China and Vietnam are converging, making it hard to prove the time machine model



- The fundamental drivers for transportation sector in China from 2011 to 2015 is very similar to those in Vietnam from 2015 to 2019, which could be the underlying reasons for the similar trends observed.



- Given the fundamental drivers are similar, and the trends are converging, a copycat model could work in SEA especially in Vietnam

- I Motivation
- II Funding trends
- III Success factors of time-machine investing
- IV Perspective on future time-machine opportunities**
  - Healthcare**
  - Property Tech
- V Appendix

# Healthcare Start-up - Common Sectors

## Online Healthcare

- Online Consultation
- Doctor Discovery
- Medical Product eCommerce
- Self-diagnosis Knowledge Base

## Facilities & Contract Research

- Clinical Research, Clinical Trials Management
- Pharmacovigilance
- Medical Facility Manufacturing

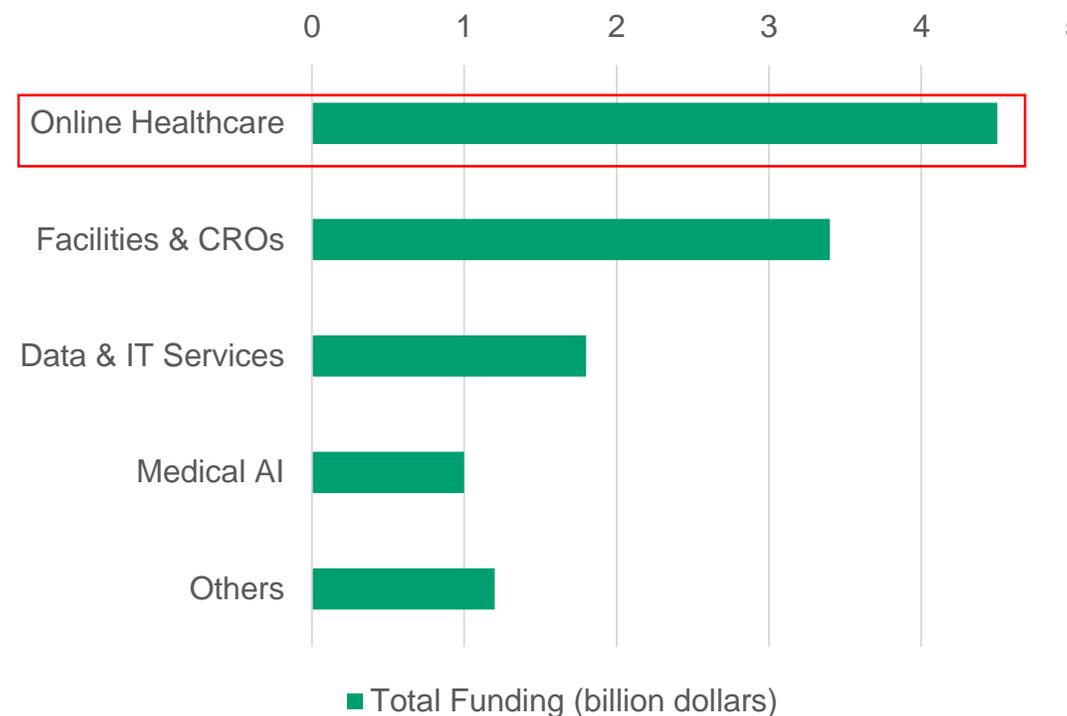
## Data & IT Services

- Medical Data Warehouse
- IoT Medical Devices
- Robotic Surgical Instrument

## Medical AI

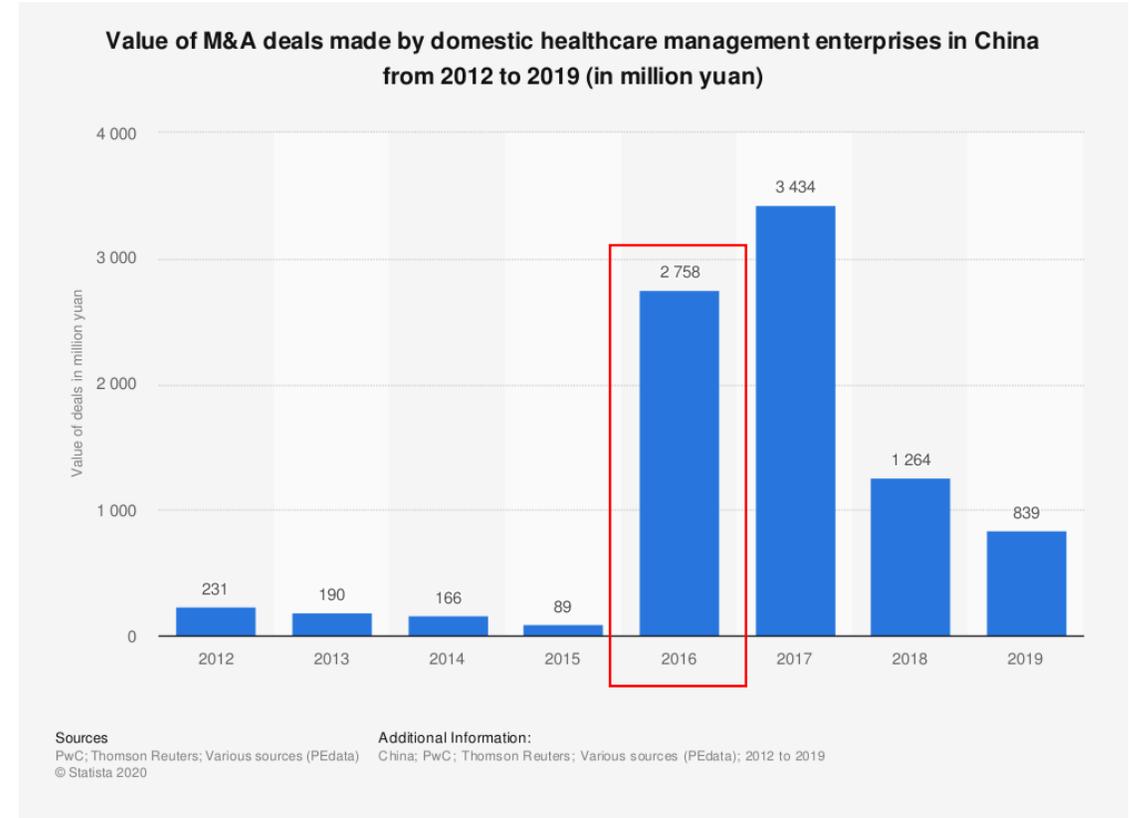
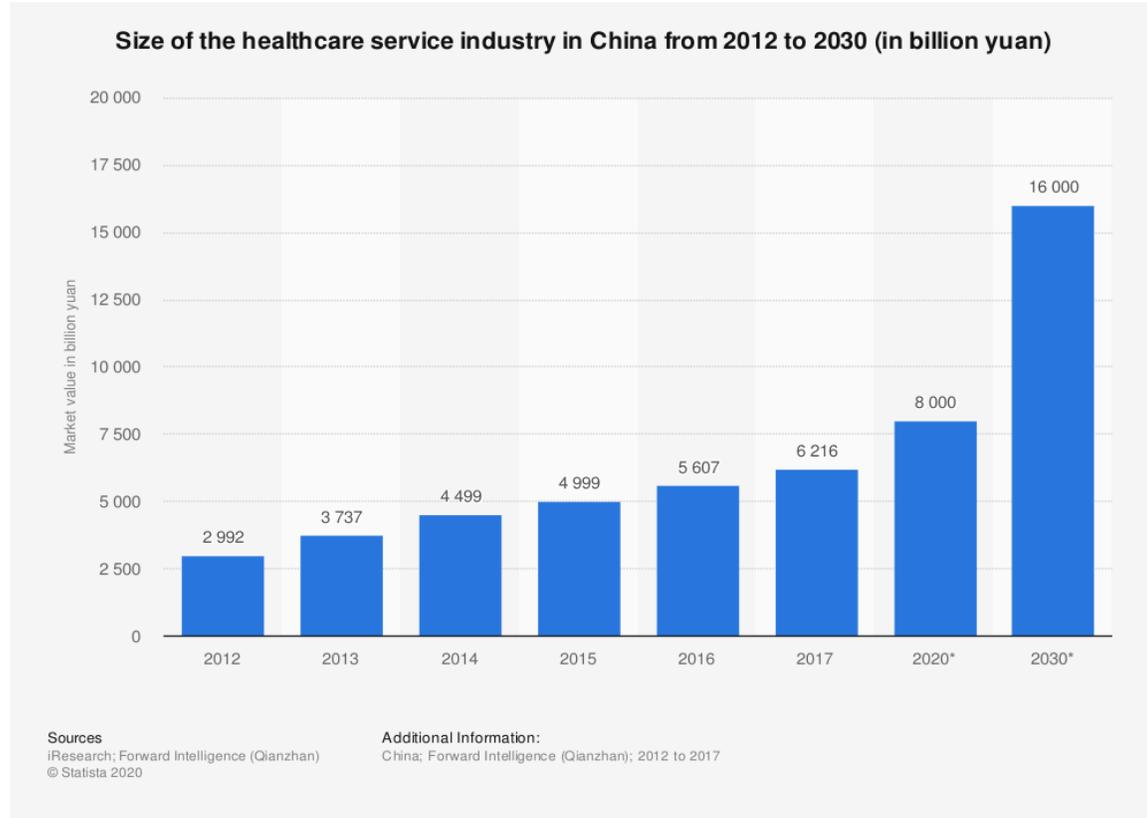
- Clinical Trials
- Compliance
- Drug Discovery
- Fitness
- Image & Diagnostics
- Predictive Analytics

## Total Funding in China (2009-2019)



Among all sectors in healthcare, online healthcare has the fastest growth in funding and market size. We will deep-dive into the driving factors of the growth of online healthcare.

# Healthcare market in China is constantly growing, however, M&A deals only started booming in 2016



As the online healthcare has the biggest portion of investment among all categories, the changes in key factors which may drive the rise of investment in 2016 can provide some directions on how to assess the investment opportunities of online healthcare in SEA.

# Online Healthcare Landscape

## Online Appointment

## Online Consultation

## Medical Database

## Digital Services

### CHINA



Founded in 2011  
Valuation: 212M



平安好医生  
Ping An Good Doctor  
Founded in 2014  
Valuation: 3.8B



好大夫在线  
www.haodf.com  
Founded in 2006  
Valuation: 1.4B



丁香园  
WWW.DXY.CN  
Founded in 2000  
Valuation: 1.2B



Founded in 2010  
Valuation: 5.4B



春雨医生  
Chunyu Doctor  
Founded in 2011  
Valuation: 3.8B



平安医保科技  
科技驱动管理式医疗平台  
智慧医保·健康未来  
Ping An HealthKconnect  
Founded in 2016  
Valuation: 8.8B

### SEA



Alodokter  
Indonesia  
Founded in 2014  
Valuation: 200M



Indonesia  
Founded in 2016  
Valuation: 350M



docdoc  
Singapore  
Founded in 2012  
Valuation: 24M



Singapore  
Founded in 2015  
Valuation: 40M



Indonesia  
Founded in 2015  
Valuation: unknown

## Market Size and Growth

- Online healthcare in China – 2.88 billion dollars in 2019, CAGR – 15%
- Online consultation contributed majority of the growth and has a GAGR of 30%

## Key Market Trends

- Online healthcare has been growing in China for the last 10 years
- Public policy was the most important driver of the growth
- Majority of the investments went to online consultation and medical digital services
- Similar business models can be found in Southeast Asia
- In 2019 total investment in SEA on online healthcare was 226 million, most of which went to Singapore and Indonesia based startups

Remarks: this landscape does not cover medical ecommerce (medical equipment, drug delivery, etc)

# What happened in China

## Industry Rivalry

- In March 2015, China State Council released the "Guideline of National Medical and Health Service System Planning" proposing to actively apply a series of new information technologies such as the Internet, the Internet of Things, and cloud computing in healthcare industry
- With the help of national policy, many healthcare companies and institutions started exploring "Internet + Medical" business model

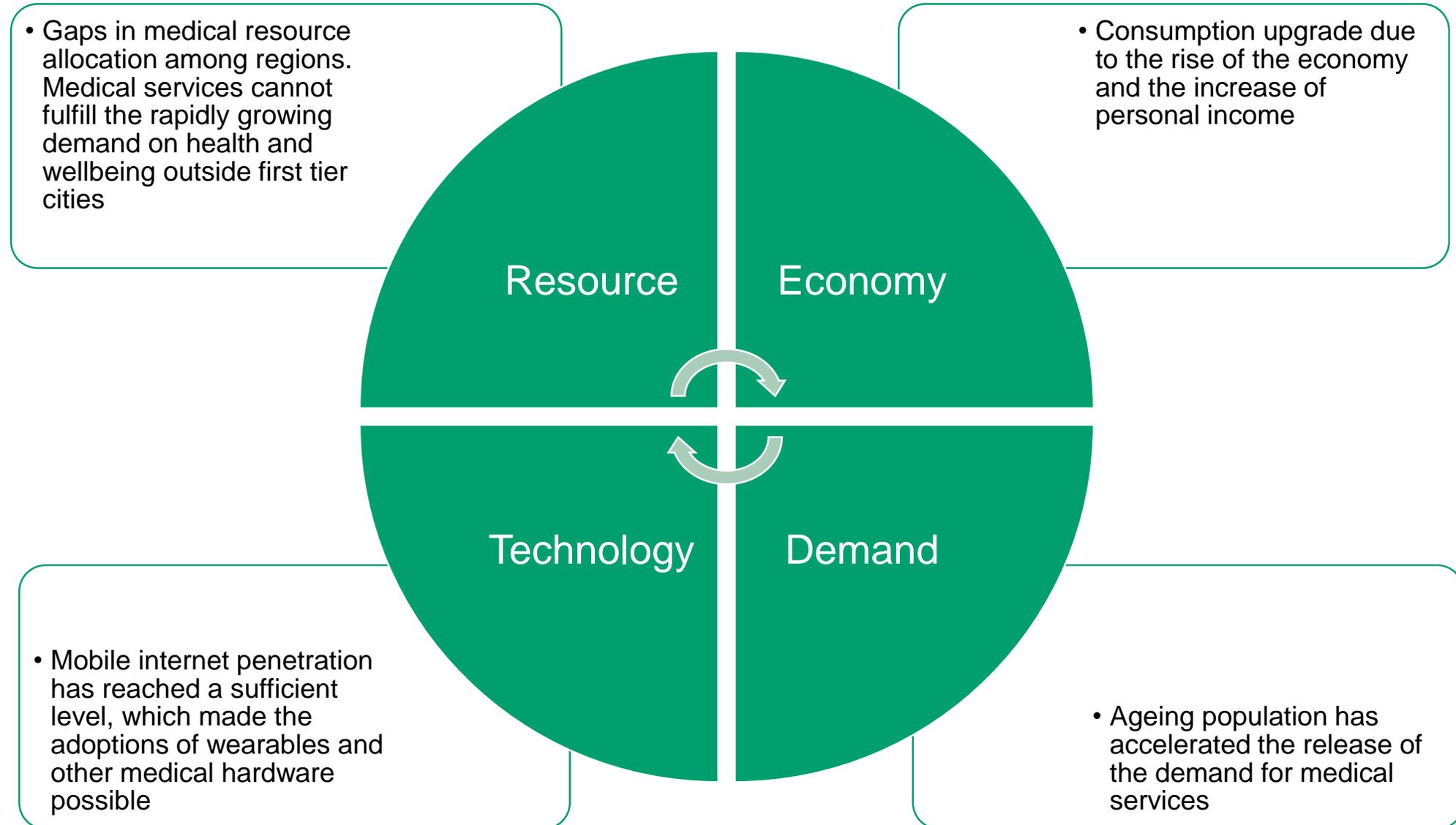
## Consumer

- In July 2017, China standardized the social security and medical insurance system. More than 80% of Chinese have been covered under the national medical insurance scheme
- The medical insurance card became the unique patient identity for all medical related activities, e.g. consultation, payment and medical records

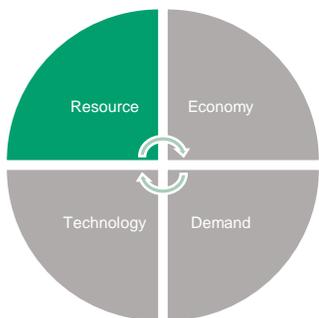
## Competition

- Since 2015, a lot of healthcare apps and websites have been developed.
- Appointment apps are more popular in the first tier cities, as there are more quality medical resources.
- Consultation apps are more popular among third tier cities where the medical resources are limited.
- Medical knowledge base apps have the most paid customers. But this type of platforms always have an ecommerce function.

# Why online healthcare grew so fast in China



# Benchmark healthcare resources in China and SEA countries



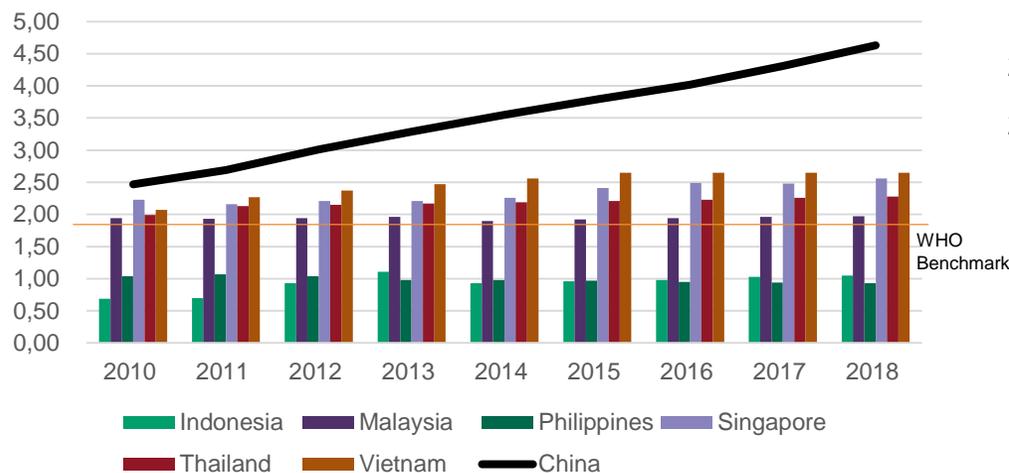
## Key takeaways



Innovative solutions and services are required if the **medical resources are not sufficient or not equally allocated** within the country.

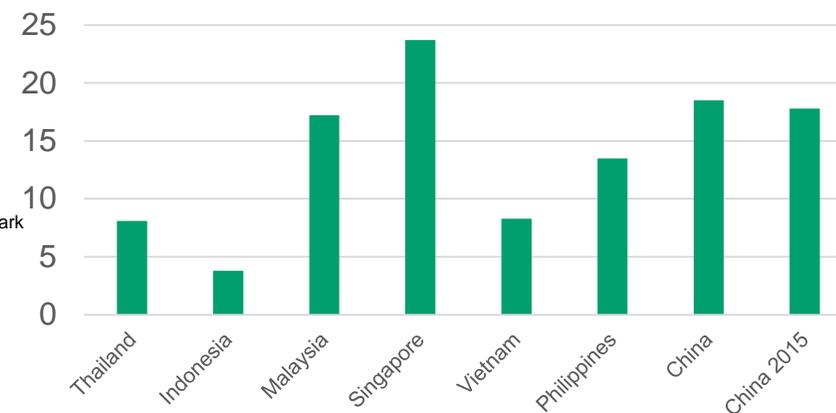
Numbers of physicians and hospital beds are the most common metrics used by the world health organization to assess the sufficiency of healthcare resources.

### Hospital Bed per 1,000 population



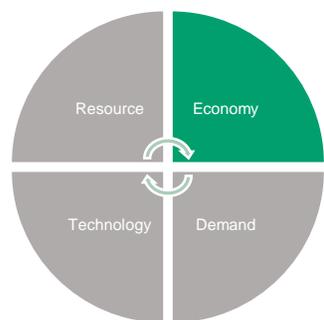
Hospital beds per 1,000 population is one of the most important indicators for the healthcare resources in a country. The World Health Organisation suggests that a country must have 1.83 hospital beds per 1,000 population in order to maintain an accessible and quality healthcare. Indonesia and Philippines have significant less capacity in terms of hospital beds, compared with WHO benchmark and other SEA countries.

### Number of Physicians per 10,000 population (2018)

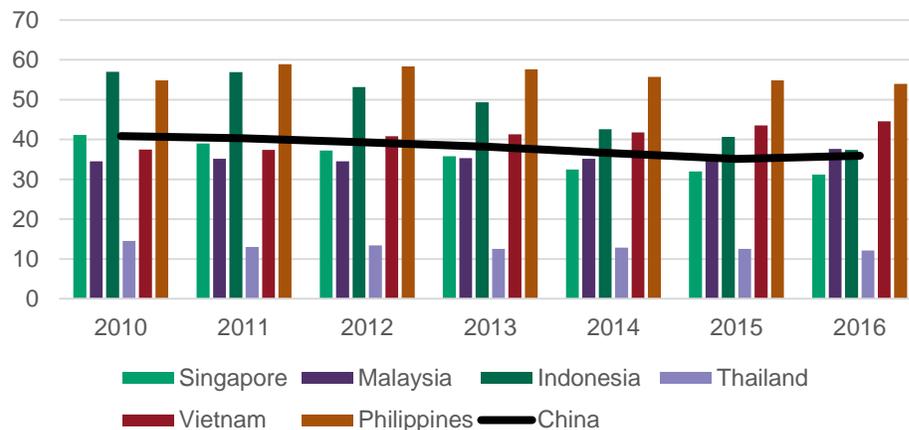


Number of physicians is also a key metric for the level of medical resources in a country. Singapore has the highest number of physicians per 10,000 population. Indonesia, Thailand and Vietnam are below par. This could lead to unequal allocation of medical resources.

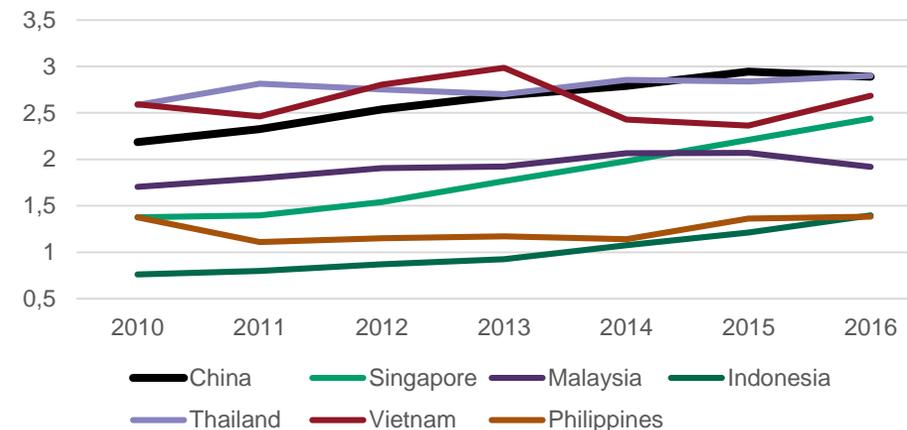
# Trends of health expenditure in China and SEA countries



Out-of-pocket expenditure (% of current health expenditure)



Domestic general government health expenditure (% of GDP)



## Key takeaways



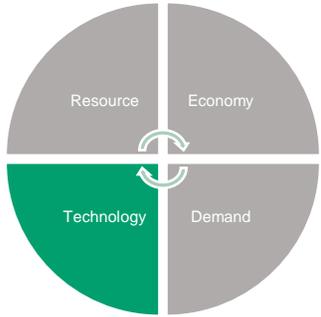
Medical insurance and government policy can both improve healthcare quality and affordability.

Healthcare startups can only take off with **government support/incentives and sufficient insurance coverage.**

In most cases, high percentage of out-of-pocket expenditure out of the total health expenditure is associated with low financial protection. Healthcare is most affordable in Thailand compared with other countries. The healthcare OPE is much higher in Indonesia and Philippines, more than 55% of the healthcare expenses have to be paid by the patients.

Domestic general government health expenditure is determined by the capacity of the government to raise revenues and the level of priority it attaches to the health sector. It indicates the potential growth in healthcare industry with the help of the government funding. In 2016, Vietnam government and Philippines government have spent significantly less compared to other SEA countries in healthcare.

# Digital penetration rate in SEA is catching up



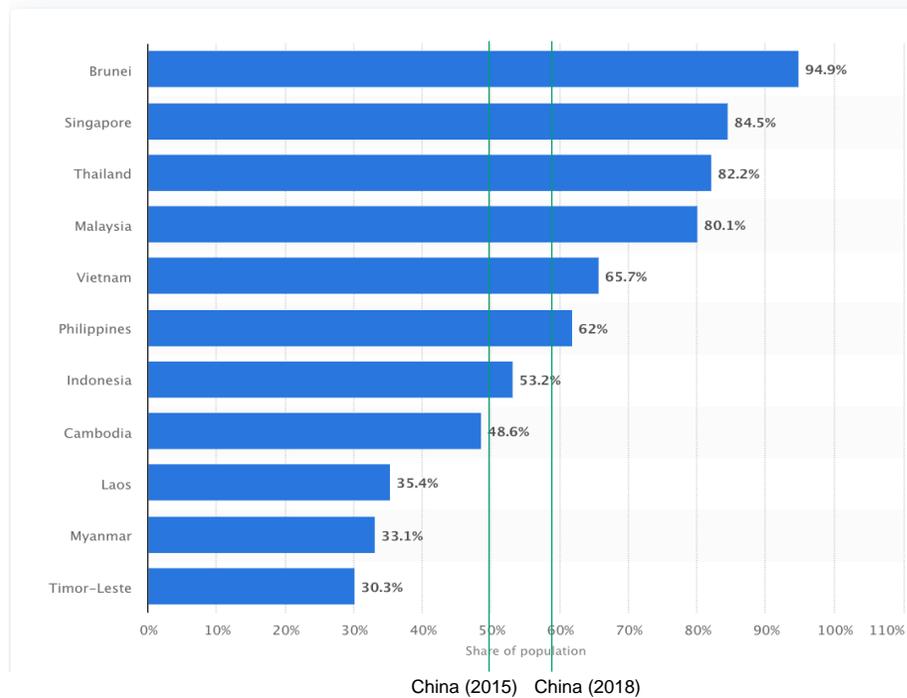
## Key takeaways



Two fundamental boosting factors for the growth of online healthcare are internet and digital payment.

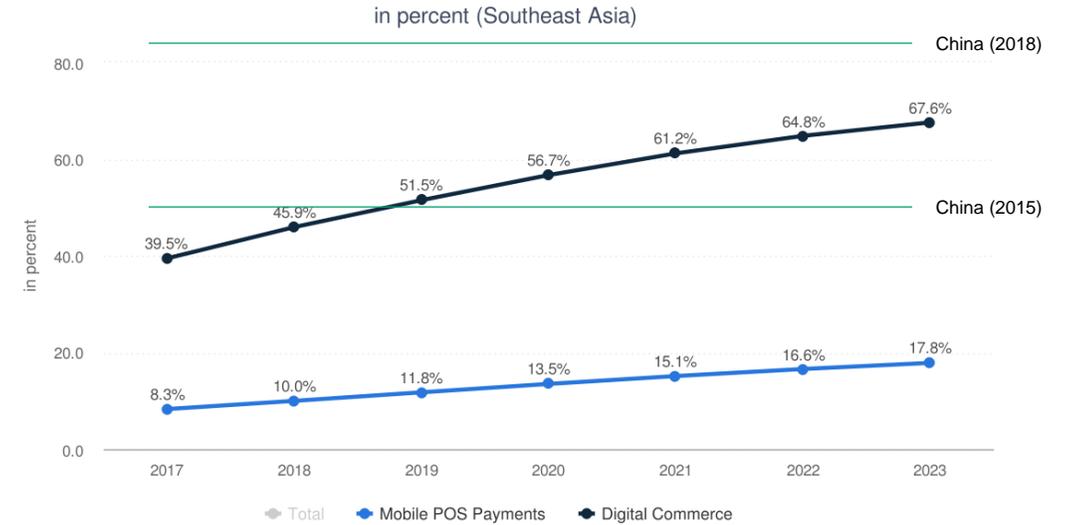
Higher penetration rate provides broader coverage of the potential users of online healthcare

Internet penetration in Southeast Asia as of June 2019,



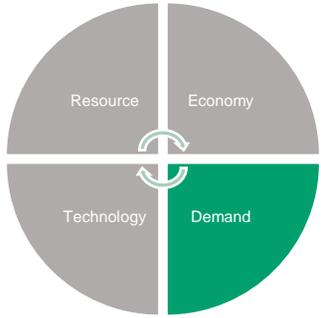
Online healthcare is the largest portion in the healthcare industry in terms of total funding in China. With 5G, robotics, ecommerce, online healthcare will also become a hot investing area in SEA. The internet penetration rate in SEA in general is sufficient to fulfill the need of online services including healthcare.

Penetration Rate in the Digital Payments market



Digital payment is the foundation of the growth of online healthcare. SEA, as a whole, has reached more than 50% penetration rate of digital payment market. 2015 was the rise of online healthcare in China, when the online payment penetration rate was 50%. It indicates that SEA right now already has the technology enablers to spin off online healthcare.

# Affordable healthcare is the key driver of the demand



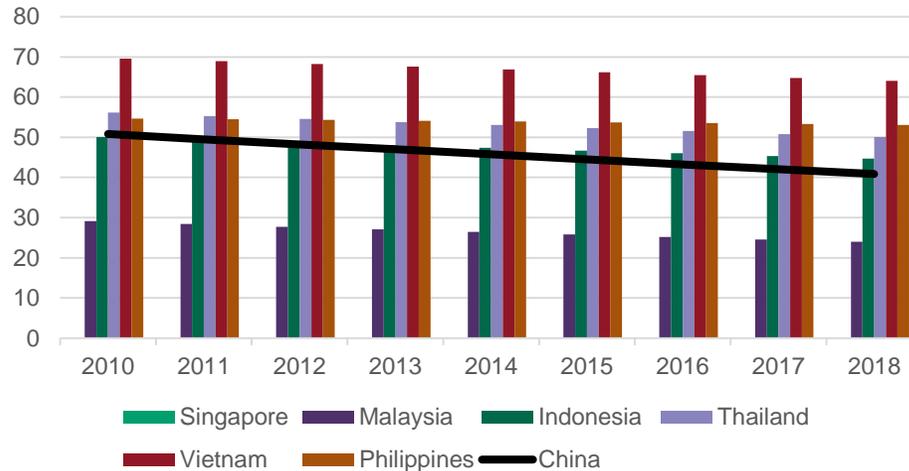
## Key takeaways



Online healthcare is a complement of the traditional healthcare system. **It is also greatly affected by regulations.**

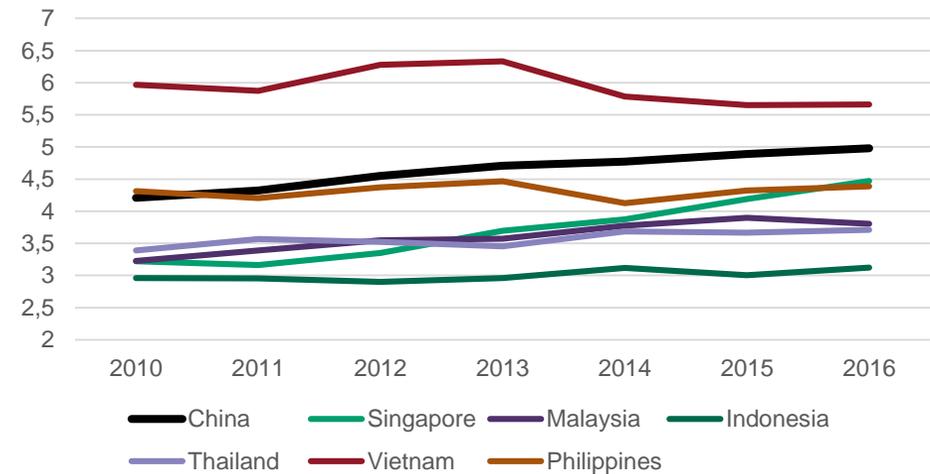
Rural population provides an indication of potential customer size who cannot access to quality healthcare. **Overall expenditure on healthcare provides the market size of the healthcare industry.**

Rural population (% of total population)



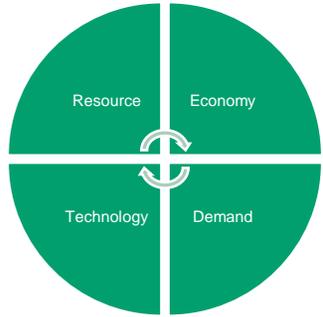
The rural population in all countries in SEA is reducing in the past years. 70% of the population in Vietnam are still living in rural area. The rural population percentage in Thailand and Philippines has reduced to same level as China in 2010.

Current health expenditure (% of GDP)



Health expenditure as a percentage of GDP indicates the market size of healthcare industry in the respective country. Vietnam has a larger domestic market as compared with other SEA countries. Singapore and Philippines are catching up in the recent years. In addition, the growth rate of healthcare industry in Singapore is tremendous.

# Online Healthcare in SEA will most likely become one of the hottest areas for PE investment



In this section, we did a deep-dive into the healthcare industry from a perspective of attractiveness for PE/VC. We identified the booming period for the funding in the healthcare industry in China. From various researches and articles, four factors were considered as the main drivers for the growth of healthcare investment in China.

We studied the major countries in Southeast Asia and benchmarked a few metrics which are related to the four key factors between China and SEA countries in order to assess the feasibility of “time machine” or “copycat” investment strategy. The following matrix provides an overview of the benchmarking results as well as the readiness of large-scale investment.

Country	Resource	Economy	Technology	Demand	Investment Strategy
Singapore	High	High	High	Low	Not very attractive
Malaysia	High	High	High	Medium	“Copycat” model may work on leading players
Indonesia	Low	Medium	Medium	Medium	“Time machine” model may work. Government incentives and supports can be used as a trigger
Thailand	Medium	High	High	Medium	“Copycat” model may work on new players
Vietnam	Medium	High	Medium	High	“Time machine” model may work. But investing in early players is the key. Infrastructure support can be used as a trigger for large-scale investment
Philippines	Low	Low	Medium	High	“Time machine” model may work. Government incentives and medical insurance adoption can be used as a trigger

# Some of the online healthcare business models already exist in SEA, but not all

## Business Model

## Comments

### Appointment

Online appointment first appeared in Singapore. There are less start-ups which provides online appointment services in SEA. The reason is because the current health and clinic system in other countries of SEA do not require any appointment. In addition, network integration with hospitals and clinics is the prerequisite of a successful implementation of online appointment system. Hence, time lag concept may not be applicable to this business model.

### Consultation

Online consultation is the most common business model for healthcare start-ups in SEA. As most of the countries do not have a balanced distribution of medical resources, people living in rural area have difficulty in access to timely medical assistance. With the help of mobile devices and online payment services, people are more willing to do online consultation for non-urgent medical enquiry. Hence, copycat model may work well for this business model given the similarity of resource allocations between China 5 years ago and now in SEA.

### Medical Database

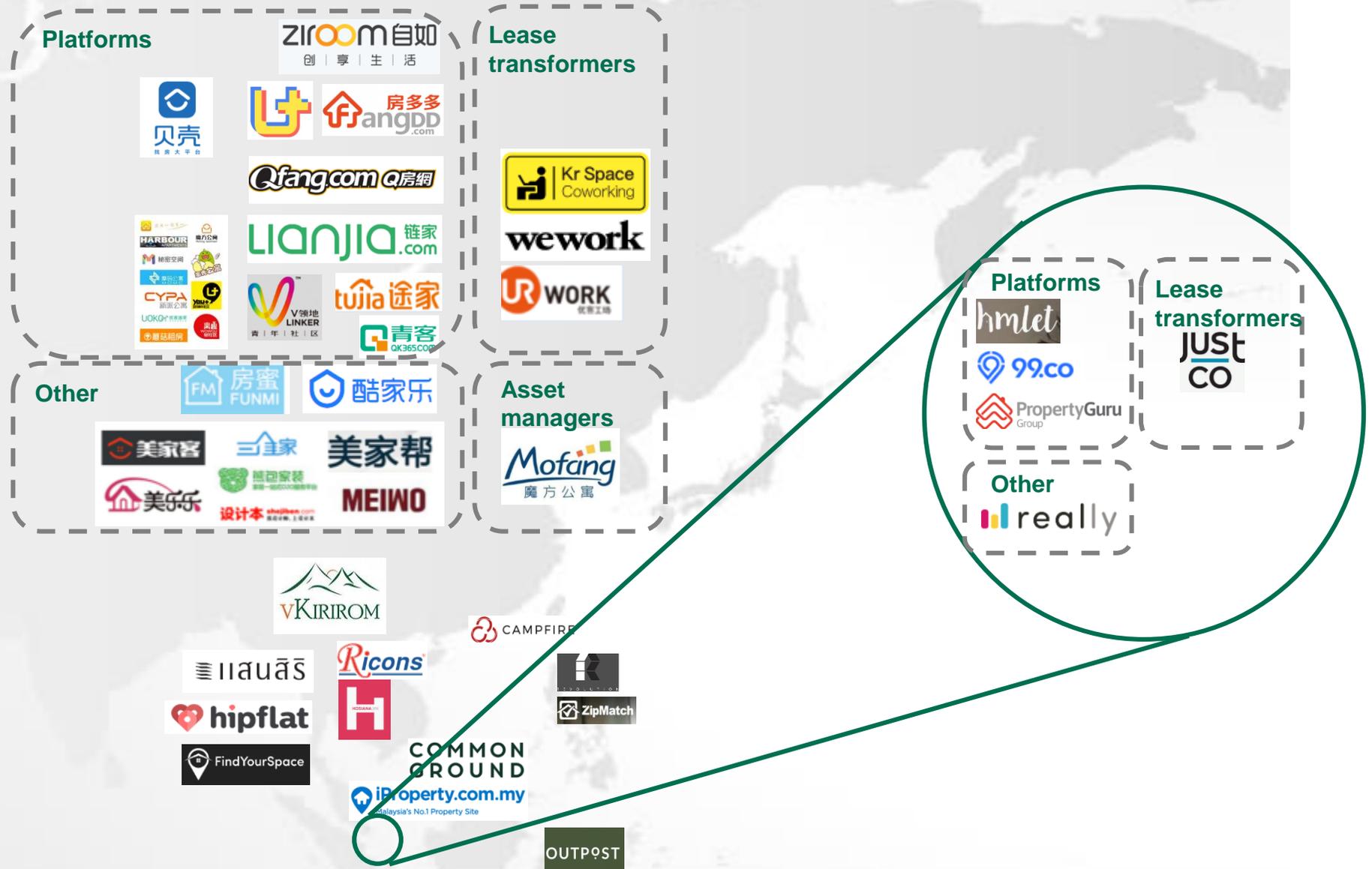
We do not see many online medical databases or knowledge bases because the revenue model for this kind of start-ups is proven unsustainable in China without integrating with pharmacy ecommerce. We expect to see more online healthcare start-ups which cover end-to-end medical services instead of single offering. Hence, the profitability of this business model is the reason why there is less similar start-ups in SEA.

### Digital Services

There are few start-ups providing digital services to healthcare business in SEA. It is mainly because the traditional healthcare facilities such as hospitals and clinics have less trust in start-ups providing digital solutions. Secondly, without government support, public policies and mature regulatory environment, digital service providers will have difficulties in attracting early adopters. Hence, time lag investment may apply to this business model as it requires more third-party relationship and the support of government policies.

- I Motivation
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# There is a congregation of Proptech in China and Singapore.





# PropTech Start-up - Common Business Models

## Platform

- ST LT Co-living Rentals
- Facility Management, PaaS
- Shared Economy
- Real Estate Agency
- Asset trading

## Other Data & IT Services

- Smart Real Estate
- Interior Designers
- Legal and Consulting services
- Renovation providers
- Building optimisation

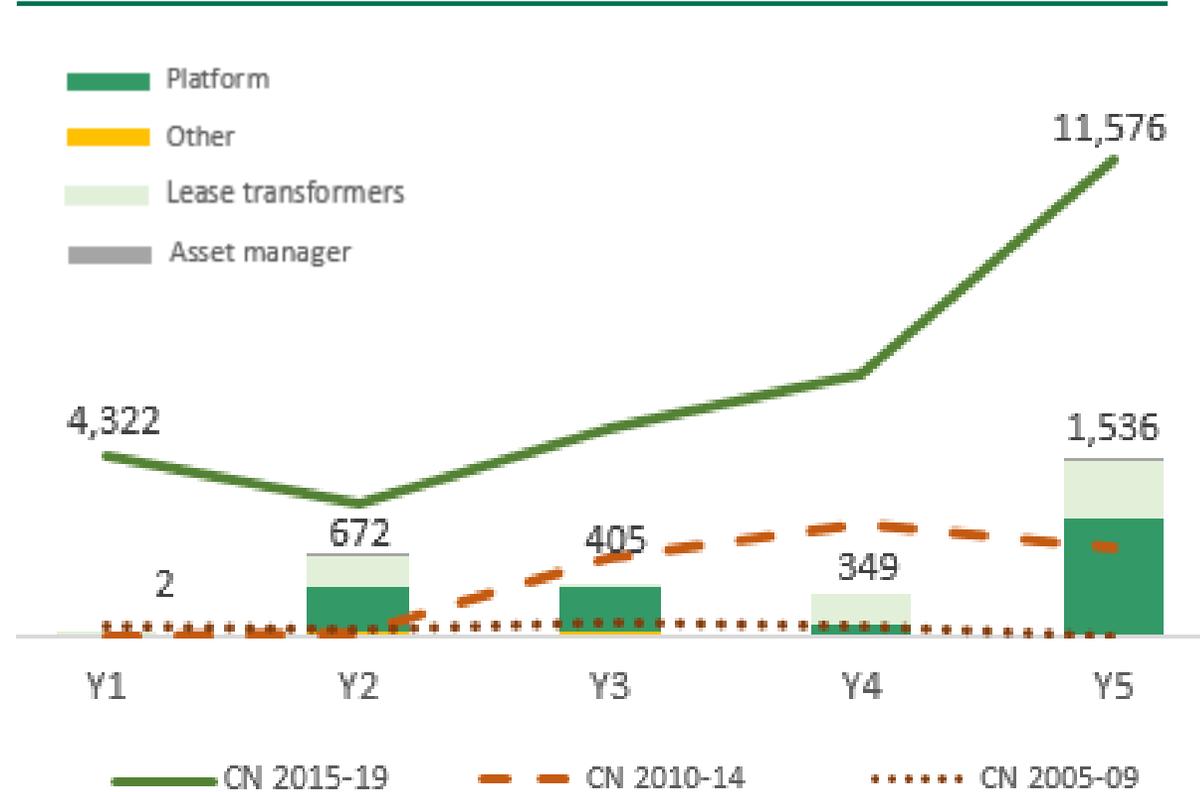
## Lease transformers

- Asset Heavy LT leases
- Co-working spaces
- Shared Economy

## Asset Managers

- "REITs"
- Purchasing buildings
- Usually developer-led

**Total funding in Proptech in South East Asia 2015-19**  
 In US\$m; Funding trends for 2010-14 & 2015-2019 for China



### Key takeaways



**Platform and lease-transformers attract most funding** in SEA and the overall five-year trend in total Proptech funding indicates a **trend closely mimicking that of China in 2015-2019** (with at most a one-year lag).

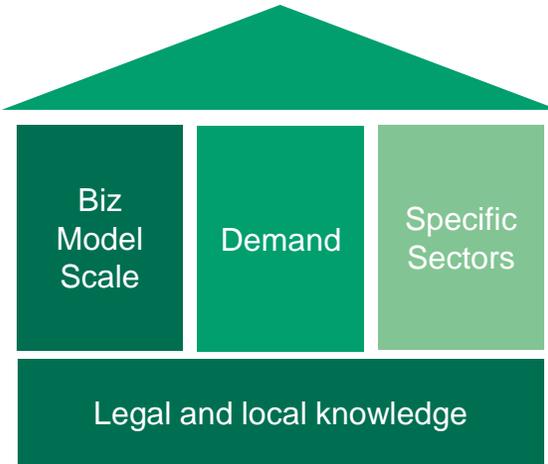


# Proptech growth is driven by demand, supported by scalability and trust networks requiring a high level of legal and local knowledge.

Heavily demand-driven (CN & SEA)  
 - **Strong economic fundamentals**, 2 decades of GDP & pop growth, rising middle class and consumption  
 - 95% of 190 million tenants in China's cities **"do not buy"**  
 - **Cyclical demand to economy**

Highest funded business models

% of fund	CN 10-15	CN 15-19	SEA 15-19
Platform	60.9%	53.2%	65.4%
Lease	19.5%	34.0%	34.2%
Asset	10.8%	9.1%	0.4%
Others	8.8%	3.7%	nm



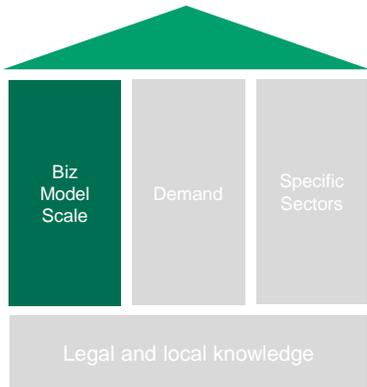
Competition success factors  
 - Key stakeholder **trust network built by first-movers**  
 - For Proptech 1.0 and 2.0, technology deployed are not at the tech frontier which reduces barriers may favour disrupters

High impact from policymaking  
 - **Consumer and investor protection** in both CN and ASEAN is mainly government-led  
 - Expertise in **local public policy** and urban planning, investor and consumer protection laws.

**Key considerations** 

- Companies in the Real estate industry have an average asset beta of 0.8 (NYU, 2020) indicating **substantial cyclicity** to the economy.
- **PropTech in CN** has a higher incidence of implementing Fintech synergies, but this does not hold true yet in 2019 **SEA incl. SG.**

# Quick scalability and being capital-light are keys to success of Proptech's business model.



## Key takeaways

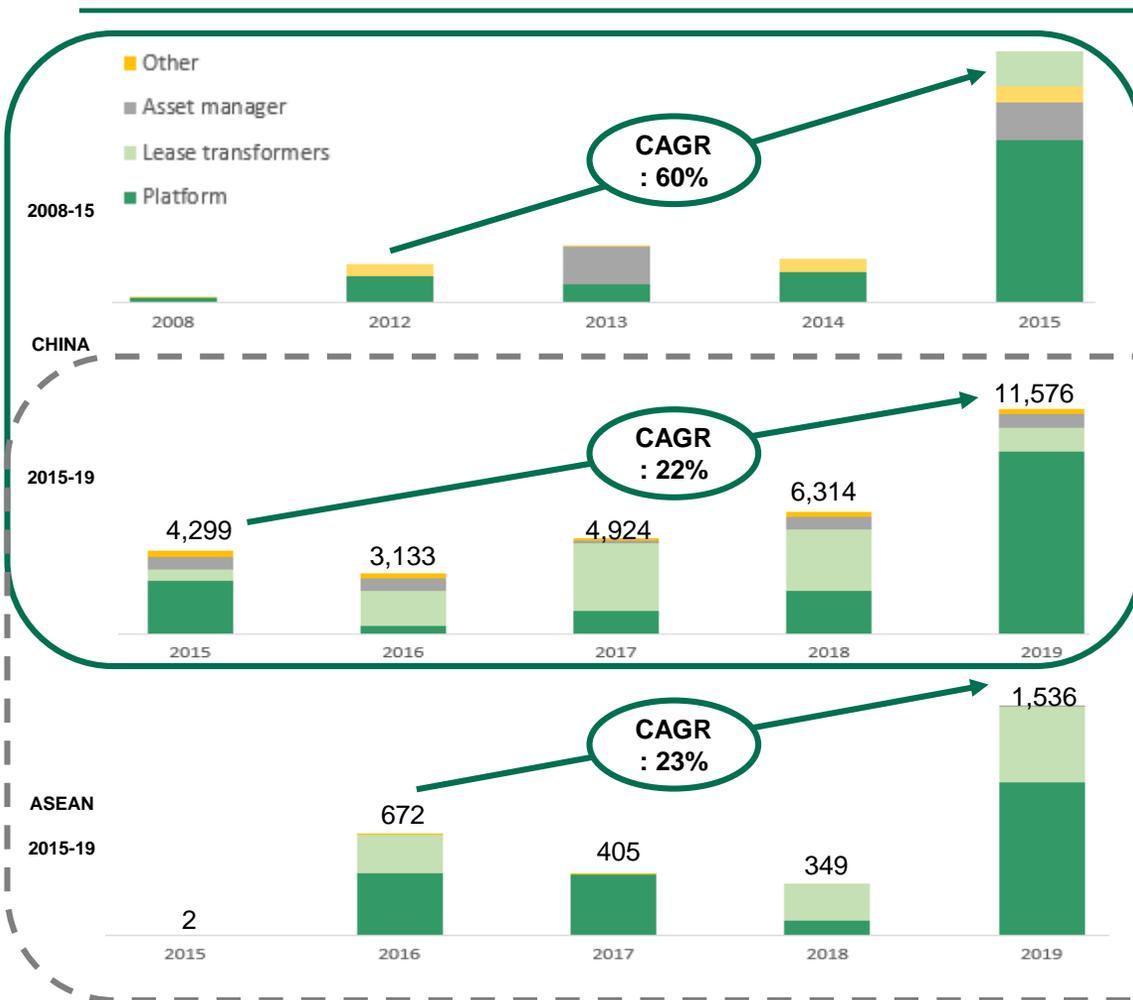


Platform and lease-transformers attract **most funding** in both CN and Singapore within the same 5-year bucket.

PropTech startups' success is mainly driven by the cost and **capital risk mitigation and quick scalability.**

## Total funding in Proptech

In US\$m 2010-14 & 2015-2019 for China, 2015-19 for SEA



Funded Business models in both China and ASEAN tend to be **capital-lite platforms**, and **easily scalable lease transformers.**

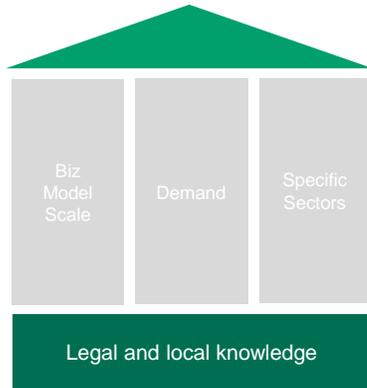


We find **little to no lag time in funding** between Singapore and China.

**SEA ex. SG** still has a very nascent industry for funding in PropTech today

CAGR	CN 12-15	CN 15-19	SEA 15-19
Platform	58%	28%	26%
Lease	nm	15%	18%
Asset	nm	1%	31%
Others	8%	-2%	nm

# Proptech growth is substantially based on country-specific knowledge (and financial) support from existing industry players.

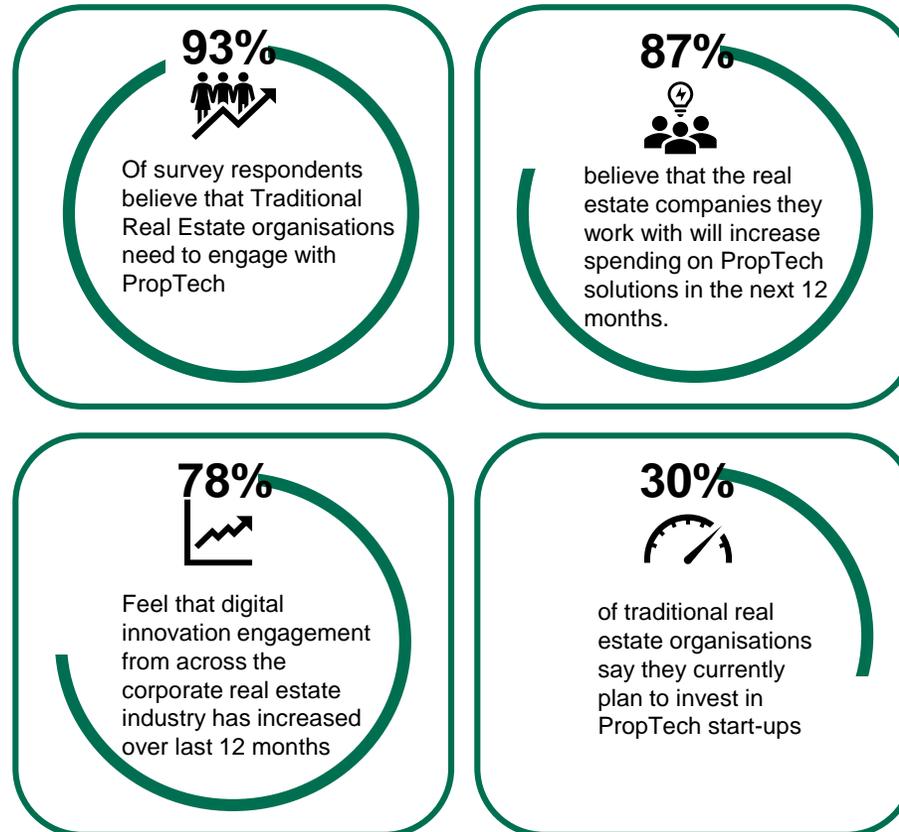


## Key takeaways



Proptech's success is highly dependent on **appropriate deal and agency structuring**.

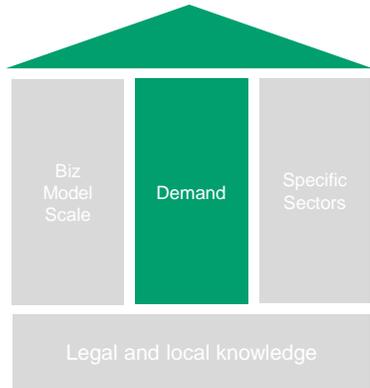
Proptech startups can only take off when considering public policy impact in **support of government initiatives**.



Source: KMPG Global PropTech Survey 2018 and 2019

- Country-specific and sometimes even city-specific **restrictions as to ownership and capital flows** pose a potential legal barrier for investors / purchasers
- Often, Proptech does not expand past its national borders of founding due to **slow adoption rates** and **high customer acquisition costs**.
- All Proptech have high regulatory risk and usually deploy proven technology (Platform, AI, matching, etc.) thus susceptible to the copycat model, resulting in **little to no lag time in funding** between Singapore and China

# Demand for Proptech is driven by macroeconomic development of the countries and its population.



### Key takeaways



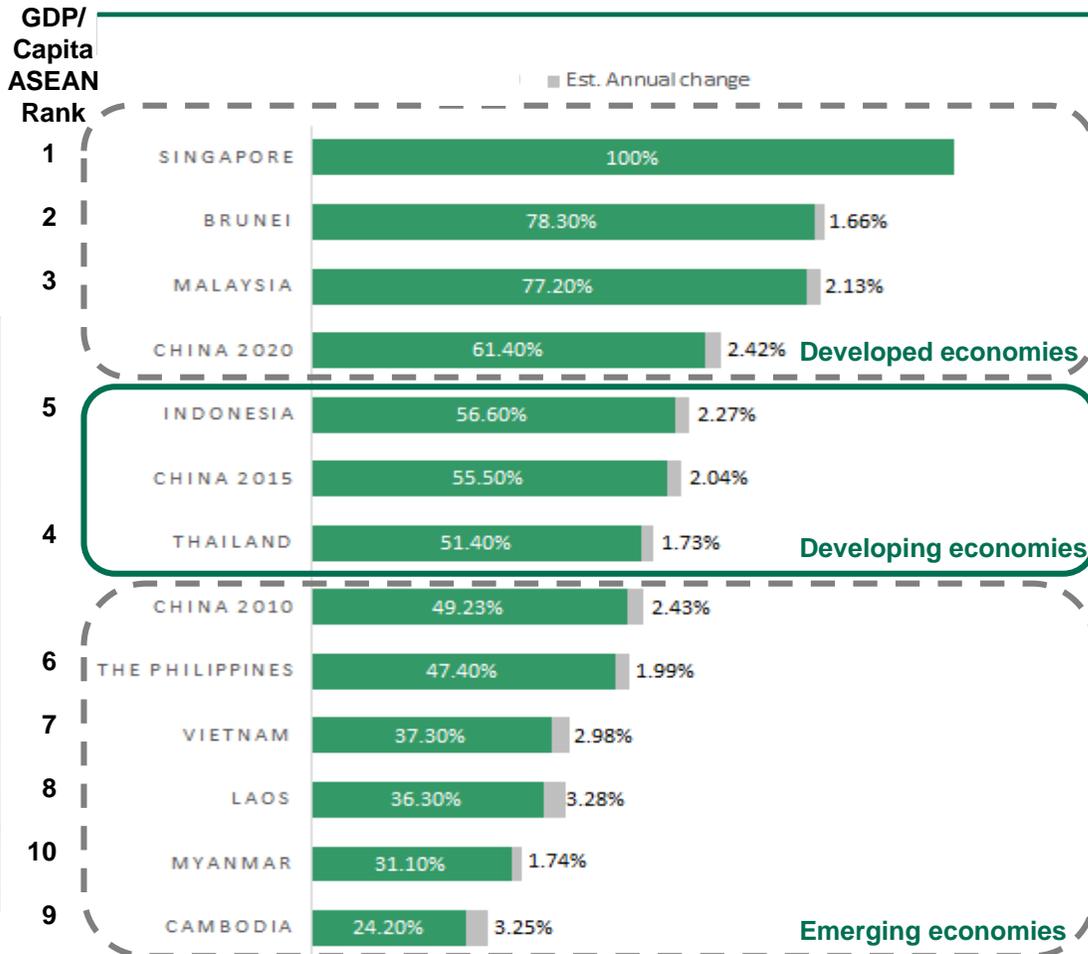
There is a correlation between **increasing average income and Proptechs funded**.

ASEAN's diverse stakeholders' demands develop **localised pain-points** which are country or even city-specific

**Highly Cyclical** to the economy

## Urbanisation in South East Asia and China

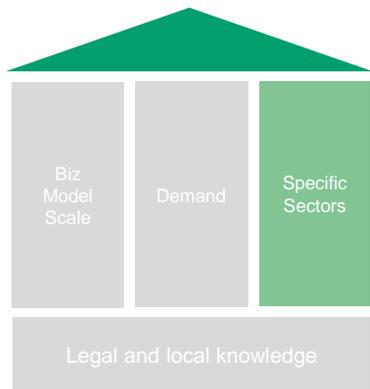
In %, 2015-19 for SEA, 2005-09 & 2010-14 & 2015-2019 for China



(Source: CIA World Factbook 2019)

- Burgeoning **urbanisation is correlated with increased demand** and penetration potential for PropTech
- ASEAN countries are economically vastly diverse and more developed economies tend to have higher PropTech penetration rates. **Singapore constitutes 95% of all funding in PropTech** between 2005-2019 with CAGR of 45%, matching that of China's 40% within the same period.
- **No funding** of Proptech in China and ASEAN **during financial crisis** of 2010
- Interesting to see PropTech growth in **Indo and Thailand**; having urbanisation rates close to China in all 3 time periods.

# Proptech favours early movers in specialised verticals, be they incumbents or disrupters.



### Key takeaways



PropTech 1.0 and 2.0 companies which relieves stakeholders' pain points (reduced fees, increased visibility), **establishes trust network as an early mover advantage.**

## Platform

2011(CN) 房多多 PropertyGuru Group 2007(SG)  
 2017(CN) 贝壳 แสนสิริ 2017(TH)

- **No evidence of time lag** in founding
- High correlation to cyclical
- B2C/B - **High technology penetration** in city populations
- Knowledge of locality and regulations is required, forms **natural barriers to entry for early movers**

## Other

2011(CN) 酷家乐 really 2019(SG)

- Observe **some form of time lag**
- **Market highly localised**, usually ancillary services
- B2B/C – Performance optimisation and data-driven or construction/design relate

## Lease transformers

2007(CN) wework JUST CO 2011(SG)  
 2016(CN) Kr Space Coworking "Overseas competitors & property developers"

- Social tendencies to residential rent has not yet gained traction (SEA)
- **Increased workspace agility** similar in SG and CN, lagging in ASEAN ex. SG.
- **Low barriers of entries**, property developers integrating downstream & lessees compete upstream as disrupters
- Some upfront capital risk with LT leases

## Asset Managers

2010(CN) Mofang 魔方公寓 VKIRIROM 2014(KH)

- Observe **some form of time lag**
- Asset managers have **long lead time**
- **High capital requirements** and restrictive flows in developing and emerging economies

## PropTech/FinTech

bitofproperty 2017(SG)  
 REALVANTAGE 2019(SG)  
 2019(VN)

- **Possible convergence** with fintech and investment funding
- Knowledge of locality and regulations is required, forms **natural barriers to entry for early movers**
- Attraction of userbase is the wide-ranging reach and possibility of geographical diversification in real estate investments.

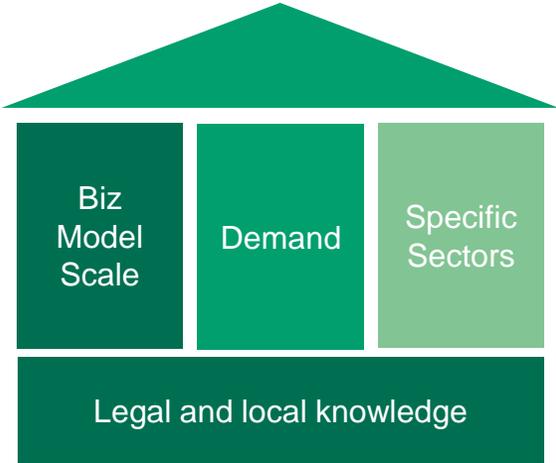
# Proptech growth is highly localised and substantially affected by policy-making.

Key success factors

- Increasing average income
- Stakeholders' **pain-points are localised**, differing between developing and developed SEA/CN, and amongst cities within countries
- **Cyclicality** of economy

Key success factors

- Appropriate **business risk mitigation**
- Utilising data to **drive cost management** or value creation
- Increased tech penetration and **lowering acquisition costs**



Key success factors

- Key stakeholder **trust network management** forming some barriers to entry in favour for incumbents
- **Lower capital requirements** reduces barriers in favour for disrupters with niche market

Key success factors

- Building government **relationship**
- Expertise in **local public policy** and urban planning
- Appropriate **Deal structuring**
- Reduced capital flow restrictions

**Key takeaways**

- Within SEA, **Singapore constitutes 95% of all funding in PropTech** between 2005-2019 with CAGR of 45%, matching that of China's 40%.
- We find **little to no lag time in funding** between Singapore and China
- **PropTech in SEA ex. SG** still has a very nascent funding scene today and there is not enough data to make a conclusive finding as to time lag.
- Increasing traction **PropTech / Fintech vertical**. Interesting to look at development of Proptech 3.0 in CN & ASEAN but also underfunded Proptech 2.0 in **Indo, Thailand**.

I Motivation

II Funding trends

III Success factors of time-machine investing

IV Perspective on future time-machine opportunities

**V Appendix**

# Description of industries as per Preqin data

Primary Industry	Sub Industries	China Examples	SEA Examples
<b>Internet</b>	E-commerce, Mobile Apps, Social Media, Shared Economy, Adtech, Real Estate Tech, Mobile Messaging, Paas, Gaming	Meituan-Dianping, Alibaba, Koubei, Ofo Bicycle, Pinduoduo	Lazada, Tokopedia, SEA, Property Guru, Bigo
<b>Financial Services</b>	E-commerce, P2P Lending, FinTech, Mobile Wallet, Financial Data Provider, FinTech, Processing & Payment Infrastructure, Smart-Pay, Exchange/Trading Platforms, Wealth Management, Cryptocurrency Platform, Digital Brokerage	Ant Financial, JD Digits, Lufax, Xiangcai Securities, Qudian	Akulaku, Tala Financing Philippines, FinAccel, Singapore Life, Coins.ph,
<b>Software</b>	Marketing/Advertising, Analytics & Performance Software, Sales & Marketing Software, Information Services, Cloud Computing, Deep Learning, Machine Learning, Smart Supply Chain, Point of Sale Data	Beijing Kwai Technology, SenseTime, Horizo Robotics, AutoNavi, Yongche	Trax, Grey Orange, Advance Technology, Near, aCommerce Group Limited
<b>Transportation Services</b>	Car Hire Services	Didi, Ucar, Shanghai Junzheng Network Technology, Uber China, Mobike	Grab, Gojek, GrabWheels, Socar Mobility Malaysia, u-Hop Transport Network Vehicle System Inc.
<b>Media</b>	Music & Video Streaming Software, Digital Media, Recreational & Entertainment Facilities, Multimedia & Graphics, Television & Film, Content Management Software, Newspapers, Magazines & News Organizations	ByteDance, iQiyi, Mango TV, Beijing Letv Sports Culture, China Media Capital	Iflix, Group One, HOOQ Digital, POPS Worldwide, Ookbee
<b>Automobiles, Other Vehicles &amp; Parts</b>	Autonomous Vehicle, Clean Technology, Electric & Hybrid Vehicles, Manufacturing	Nio, BYD, Ready-Go, Lixiang, Xpeng	Pamindo Tiga T
<b>Retail</b>	Clothing Stores, Consumer Electronics Stores, Search Engines, Supermarkets & Grocery Stores, Coffee Shops, Restaurants & Nightlife, Accessories, Footwear, Consumer Product	Intime, Huimin, Luckin, Secoo, Womai	Zilingo, Sendo, RedMart, Fore Kopi, Warung Pintar
<b>Consumer Products</b>	Clothing, Consumer Electronics, Footwear, Search Engines, Web Applications, Household Appliances, Bakery Products, Beauty & Hygiene	Eui, Suning, Yijiupi, Beingmate, Mogujie	ShopBack, Tiki, Reebonz, Zimplistic, Sorabel
<b>Education/Training</b>	Consulting Services, Education & Training Services, Education & Training Website, Web Applications, Education & Training Software, Information Services, Schools	Zuoyebang, Beijing Dami, Zhangmen.com, DadaABC.com, Beijing Gaosi Bole Education Technology	Ruangguru, Knowledge Universe Education, Topica Edtech, PT Zenius Education, XSEED Education
<b>Business Support Services</b>	Intellectual Property, Analytics & Performance Software, Information Services, Corporate Event Management, Business Support Services, Commercial Printing, HR & Workforce Software, Outsourcing	Tenglong Data, WTOIP, Chinac.com, Terminus Technologies, Jusda	PatSnap, CoHive, Oneberry, PT Bizzy Commerce Indonesia, Gogoprint
<b>Consumer Services</b>	Courier & Delivery Services, Hospitality Services, Food & Beverage Distribution	Cainiao Networks, 58Daojia, Yunniao.me, Quanfeng Express, ihomefnt.com	Singapore Post, Honestbee, oBike Asia, EzBuy, Ezyhaul
<b>Pharmaceuticals</b>	Molecular Science, Genetics & Gene Therapy, Oncology/Cancer Treatment, Pharmaceutical Research & Development, Biopharmaceuticals	Innovent Biologics, CStone Pharmaceuticals, I-Mab Biopharma, Asymchem Laboratories, Pharmaron Beijing	Tessa Therapeutics, ASLAN Pharmaceuticals, MerLion Pharma, Brabant Pharma, Sentinext Therapeutics
<b>Logistics</b>	Logistics & Distribution, Logistics Software, Freight Transportation Services, Courier & Delivery Services, Trucking	E-shang, Best Logistics Technology (China), Shenzhen Hive Box Technology, China ANE Logistics, Shanghai Yimi Dida Supply Chain Management	Ninja Logistics, Marco Polo Marine, PT. Sicepat Ekspres Indonesia, Farm to Fork, Go Marine Malaysia
<b>Biotechnology</b>	HealthTech, Research, Molecular Science, Genetics & Gene Therapy	BGI, Wuxi NEXTCODE Genomics, Shanghai Henlius Biotech, Beijing Kemei Bio-technology, InnoCare Pharma	Cerecin, TauRx Pharmaceuticals, Medisix Therapeutics, Hummingbird Bioscience, S*BIO
<b>Travel &amp; Leisure</b>	Transportation Services, Hotels & Accommodations, Travel & Tourism, Search Engines, Fitness & Wellness Facilities, Restaurants & Nightlife	Nanjing Tuniu Technology, Xiaozhu, Taopiaopiao, Lvmama, Yijia (Shanghai) Apartment Management	Traveloka, Huy Vietnam Group, Aqua Expedition, Zen eServices, KFit
<b>Healthcare</b>	Diagnostic, Medical & Imaging Laboratories, Oncology/Cancer Treatment, Medical Devices & Equipment, Home Healthcare, Nursing Homes & Assisted Living, Healthcare IT, Web Applications	We Doctor, JD Health, Tencent Trusted Doctors, Gushengtang, MGI	Ark, Lucence Diagnostics, Homage, Singapore Medical Group, INEX Innovate

# Project Team



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Extensive experience in technology transformation and corporate strategy, esp. in the domains of IoT and eCommerce



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ASEAN chartered accountant who led the re-organisation of a healthcare company and completed its IPO within six months. He is interested in health- & ed-tech in the ASEAN region



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**Equities Trader with JP Morgan, based in London**

Expertise in mainly delta 1 derivatives and managing the bank's financial resources to ensure funding and liquidity of the business is efficiently optimized



**Bokai LIU**

**Management Trainee at BP in Shanghai, China**

Expertise in sales, supply chain, and project mgmt.  
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In her time at Google she has worked with numerous startups and scaleups in South East Asia, including many household names across multiple industries



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