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Diversified & Specialty Finance
Asia | China


China InsurTech

Game On: A Bustling Market with Ample Opportunities

- **Permeating the entire value chain** — To sharpen their competitive edge, Chinese insurers are widely applying innovative technology at each node of the value chain, from pre-transaction processes to claims settlement. Innovations increasingly are driven by the Cloud, Big Data, AI, BlockChain and the Internet of Things. Yet the real game changer has been *internet-based distribution*, evidenced by an 86% CAGR in policies sold online in 2012-19. Citi's Research Innovation Lab also suggests that the Internet has become customers' preferred channel in a key aspect of the purchase decision, i.e. insurance education. In this report, we provide a bird's-eye view on the Chinese insurance industry and delve deeper into the InsurTech space.
- **Multiple players entering with regulatory support** — The Internet has been reshaping the landscape of China's insurance industry for some time, notably raising awareness among the young, tech-savvy, and well-educated. On top, Covid-19 has accelerated the shift of insurance demand from offline to online. Hence, traditional insurers, specialized Internet-only insurers, Internet giants and various emerging innovative platforms are all seeking a piece of the Chinese insurance pie, but all in their own ways. Regulator CBIRC is encouraging healthy industry growth, while emphasizing risk control and customer protection.
- **Initiate Huize at Buy/H and Hundsun at Buy; ZhongAn at Neutral/H** — (1) Our top sector pick is Huize (TP of US\$10.6), a forerunner and leader in online sales of long-term life products. Though the business is still in its early stage, we like Huize for its asset-light model, persistence in distributing long-term products to generate recurring income streams and potential future vertical integration opportunities. (2) We also are positive on Hundsun Tech (TP of Rmb129), a top FinTech services provider to FIs in China that has a dominant market share, high customer loyalty and multiple business expansion catalysts ahead. (3) While we appreciate ZhongAn's Internet-oriented operational mindset and quick self-evolving capabilities, we see the online P&C market as getting crowded and think the stock is fairly priced after a recent rally. All stocks are valued via the DCF method.

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1 = Buy, 2 = Neutral, 3 = Sell, H = High Risk

Source: Citi Research

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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Executive Summary

InsurTech has been widely applied in the whole insurance value chain and is revolutionizing the insurance industry. Many players are seeking ways to join the InsurTech field.

Internet insurance saw substantial growth in the last decade but penetration rate remains low.

Our Research Innovation Lab shows that more people are taking to the Internet for insurance education, hence we anticipate much growth potential for the field.

Insurers and InsurTech players apply cutting-edge technologies in the whole insurance value chain.

The broader InsurTech market is crowded with a variety of players.

The Chinese regulator aims to strike a balance between growth and risk management with the growth of Internet Insurance industry.

InsurTech has been widely applied in the insurance value chain. From the pre-transaction product design stage to claims settlement, state-of-the-art technologies facilitate insurers' businesses. In this report, we provide a first bird's-eye view on the whole value chain and relevant participants. Chinese insurance companies and other technology players have started to distribute insurance products online and develop their in-house InsurTech capabilities. InsurTech is bound to bring about revolutionary changes to the insurance industry in the long term.

The Internet insurance industry has been gaining traction over recent years. The number of insurance policies sold online recorded a substantial CAGR of 86% from 2012 to 2019. However, penetration rate of Internet insurance is still low and only accounted for 6.3% of overall insurance industry premiums in 2019, which we believe is not sustainable especially against the backdrop of the global pandemic.

Nevertheless, we anticipate a bright future ahead for Internet insurance as more customers make use of the Internet for insurance education. According to our Research Innovation Lab, the monthly average search frequency of insurance keywords has exhibited a notable trend upwards since 2011, while searches for life insurance-related terms has advanced over the past few years.

Life and health insurance take up the largest share of Internet insurance market by premiums. Health insurance premiums have risen in importance post 2016 and accounted for almost one-tenth of the market in 2019. While P&C premiums shrank along with downturn in industry auto premiums in 2016-2017, it started to regain momentum in 2018-2019 with non-auto growth. Innovative products and online scenario-based products also contributed to the non-auto jump.

Unsurprisingly, Internet insurance attracts a large pool of young and well-educated client base. According to a survey by Tencent, number of Internet insurance customers represented 28% of total netizens in 2018. Data from several sources pointed out that Internet insurance customers mostly age between late-twenties and early-thirties, and have higher education background and good monthly incomes.

Other than broadening distribution channels, InsurTech in a broader sense is also often sought to develop insurers' edge over competitors. Insurers often mention their efforts in utilization of cloud computing, Artificial Intelligence (AI), Big Data, Blockchain and Internet of Things (IoT). These technologies are expected to empower insurers' operation flows including product design, sales and marketing, underwriting and claims settlement.

While traditional insurers look to break-through their traditional sales model with online distribution, regulators have designated a specific class of online-only insurers, like ZhongAn. Internet insurance intermediaries and third-party platforms are dominant in online insurance distribution and have much potential to disrupt the industry. On the other hand, unconventional insurance players, like Internet giants, have joined the battlefield as well. Mutual aid platforms which had become the center of attention in recent years have helped to raise insurance awareness among younger generation.

Similar to the overall insurance market, the regulators' attitude is vital to the development of the Internet insurance industry as well. The overall regulatory principals for the internet insurance sector so far, are based on encouraging healthy growth, strengthening risk controls and customer protection. The Chinese regulators have been trying to strike a balance between growth and risk. The regulator has introduced measures to foster the development of Internet insurance and has established a framework to ensure disciplined development. Meanwhile, CBIRC is

said to have started consulting with the industry on an updated version of the *Interim Measures for the Supervision of the Internet Insurance Business* in Dec 2019.

In view of the rise of the Internet insurance and the broader InsurTech industry, we initiate coverage on three Chinese InsurTech players.

Initiate Huize Holding, a market leading licensed online independent insurance platform with a unique focus on long-term health.

We initiate **Huize Holding** (HUIZ) at Buy/High Risk with a target price of US\$10.6 though the business is still in its early stage. Huize is a forerunner and market leader in online distribution of long-term health products with 24% market share among independent insurance brokers in 2018. Cooperating with Internet key-opinion-leaders (KOLs), Huize facilitates its young, tech savvy and highly-educated customers to select suitable LT health bargains. It also participates in insurers' product design, underwriting and claims handling processes. We like Huize for its: (1) asset-light model, which is immune to interest rate/ investment risks and underwriting risks; (2) unique focus on long-term health products that generate recurring fee incomes; and (3) potential future vertical integration opportunities with both upstream and downstream partners.

Initiate Hundsun Technologies, a top financial technology services provider backed by Ant Financial.

We initiate **Hundsun Technologies** (600570.SS) at Buy at a target price of Rmb129. Being a top financial technology services provider in China, Hundsun occupies a dominant market share in securities brokerage system (50%) and portfolio mgmt. IT system for insurers, trust and asset managers (70%~90%) with high customer loyalty. We see multiple catalysts ahead for further business expansion stemming from continuous system upgrade demand, emerging new financial products and services in the market and rising number of FIs in China. Meanwhile, leveraging the vast client base, Hundsun is also cooperating with its controlling shareholder Alibaba on cutting-edge financial technologies such as Cloud solutions as a new growth driver.

Initiate ZhongAn Online P&C, the largest specialized online-only insurer in China with a focus on innovation.

We initiate **ZhongAn Online P&C Insurance** (6060.HK) with a Neutral/High Risk rating at a target price HK\$50.8. Founded in 2013, ZhongAn has rapidly expanded presence and has become the largest online P&C insurer in China with 16% market share covering health, lifestyle, consumer finance, auto and transportation. While we see ZhongAn as the best online-based insurer for its Internet-oriented operational mindset and quick self-evolution capabilities, the online P&C market is getting over-crowded with all traditional insurers forced to join the battlefield due to COVID-19. We look forward to more innovations brought in by ZhongAn to the reshuffle industry landscape again, however, we believe the stock is fairly priced at the moment after the recent sharp rally.

Huge Opportunities Across Industry Value Chain

Figure 1. InsurTech is widely applied in the insurance industry value chain



Processes	Cloud Computing	Artificial Intelligence	Big Data	Blockchain	Internet of Things
Leads / Education		✓	✓		
Data Analysis & Product Design	✓	✓	✓	✓	✓
Sales	✓	✓	✓		
Underwriting	✓	✓	✓	✓	✓
Investments	✓	✓		✓	
Middle / Back Office Operations	✓	✓	✓	✓	✓
Post-Sales Interaction		✓	✓		✓
Policy Risk Management	✓	✓	✓	✓	✓
Claims Settlement	✓	✓	✓	✓	✓

Source: Citi Research

InsurTech is widely applied in the insurance industry value chain. In the pre-transaction stage, insurers extract and analyze relevant data to refine product design processes. Technologies, such as big data, enable insurers to use the right leads and user education for marketing, and even help insurers deliver better underwriting and risk management, etc. Many Chinese insurance companies have followed suit to develop their in-house InsurTech capabilities in recent years, so as

to establish a competitive edge over peers. In the long term, we believe InsurTech could transform the insurance industry with revolutionary changes.

Among all processes within the value chain, Internet-based insurance distribution has drawn the most attention in China. On top of the specialized Internet insurers who strive to establish presence in the InsurTech space, Internet giants and plenty of innovative online platforms have joined the industry to take a piece of the pie. Amid such a crowded marketplace, many leading traditional insurers are still aiming for major breakthroughs with their conventional business models.

Despite the rapid growth, Internet insurance has yet to take up a significant portion of the market, partially due to regulator's tightening on short-duration savings products, starting from 2016. In 2019, Internet insurance premiums totaled Rmb270bn, taking up only 6.3% of the insurance industry premiums.

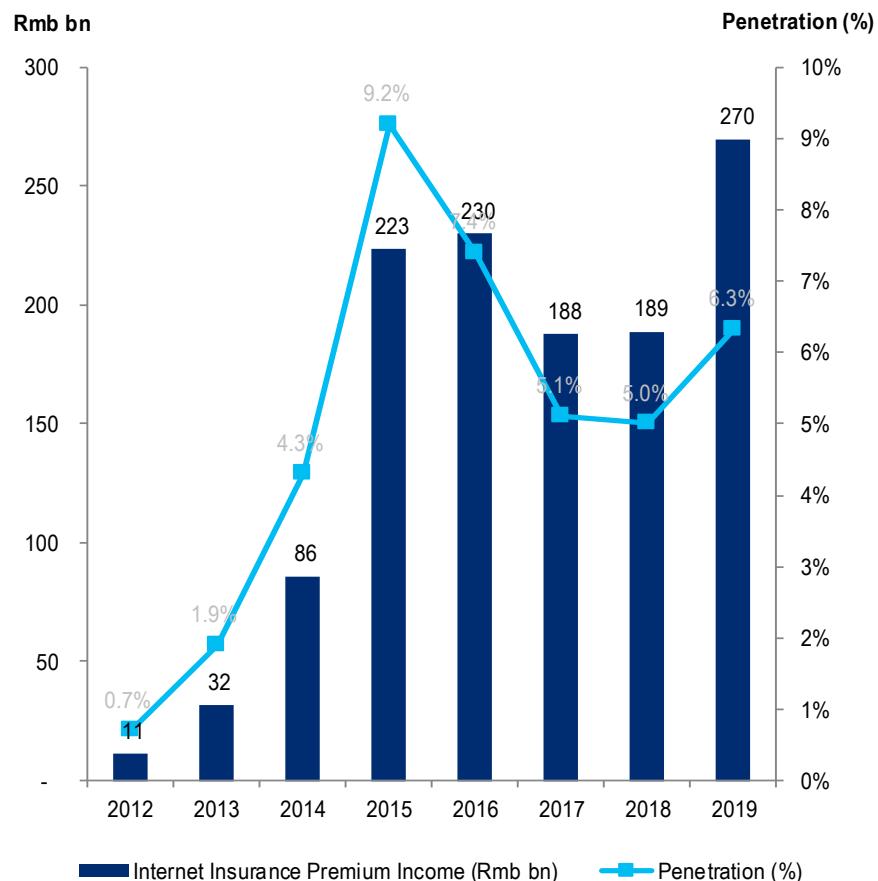
Vibrant Internet Insurance Industry Gaining Traction

The rapidly growing internet insurance industry has been in attention over the recent years, with number of insurance policies sold online recording a substantial 86% 2012-19 CAGR. Internet insurance has reached a scale of Rmb270bn in 2019, but still just accounted for 6.3% of the whole insurance industry premiums. The penetration rate of online insurance had touched 9.2% in 2015, but in 2016 the insurance regulator tightened the sales of the then most popular short-duration saving insurance products.

In 2019, Internet insurance regained momentum and its growth rate of 43% notably outpaced the overall industry of 12%. We see a large room for sustainable growth ahead, with Chinese people becoming increasingly comfortable with online insurance purchases, more players joining the game and the channel's business model evolving towards more professional and offering unique knowhow.

Figure 2. Internet insurance penetration meager at 6.3% in 2019

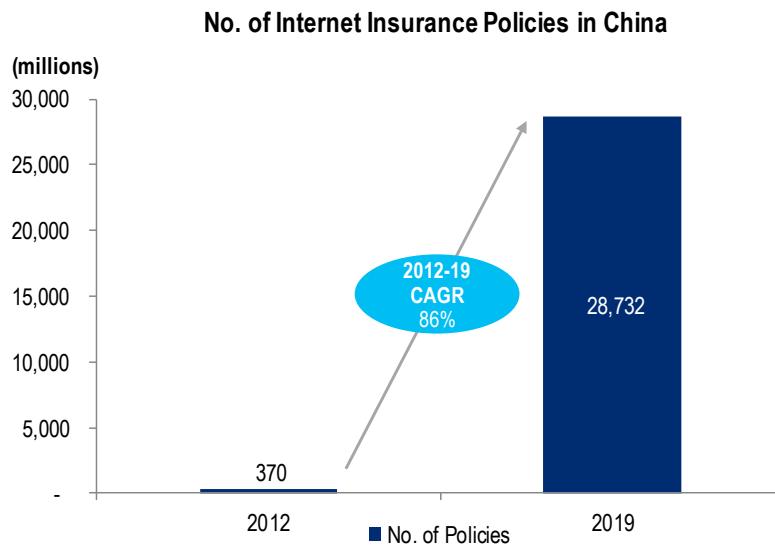
Internet Insurance Premium and Penetration in China



Note: Penetration is defined as internet insurance premium as a % of industry insurance premiums

Source: iResearch, Insurance Association of China, CBIRC

Figure 3. Number of Internet insurance policies recorded 86% CAGR through 2012-2019



A Rmb270bn industry developed within just 15 years

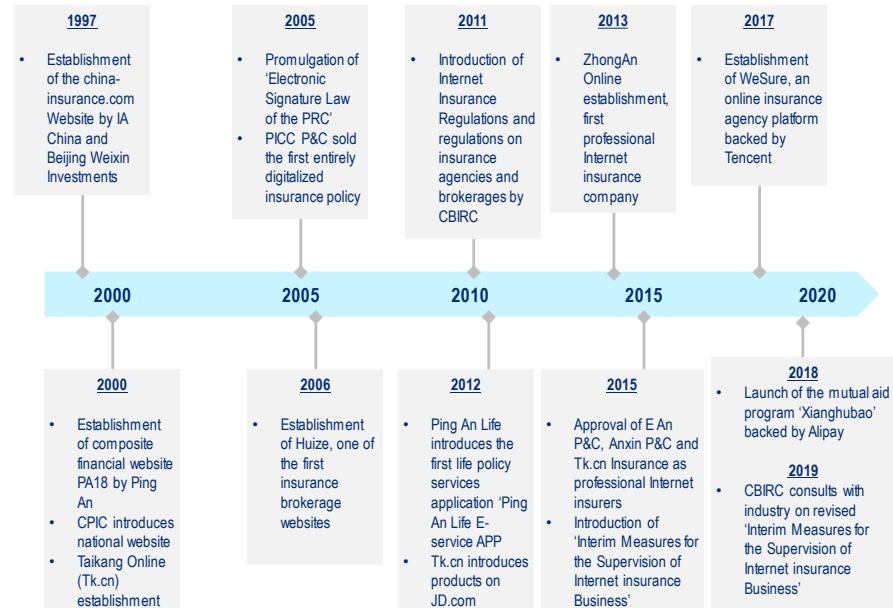
The development of China's Internet insurance industry began with the establishment of china-insurance.com, the first national insurance data website, by the Insurance Association of China in 1997. However, it was not until 2005, after the promulgation of the Electronic Signature Law, the companies started to sell entirely digitalized insurance policies.

In the last decade, regulators issued a series of regulations on Internet insurance players and insurance intermediaries, setting the ground rules and regulatory framework for the sector. The emergence of ZhongAn Online in 2013, in particular, was driven by the introduction of online-only insurance license.

The rise of e-commerce in China propelled the development of Internet insurance. In 2008-2010, the number of insurance websites surged along with a rise in e-commerce platforms. Since 2012, Chinese insurers have adopted an Internet insurance model to conduct sales on websites, e-commerce platforms, third-party platforms, and subsequently via mobile apps.

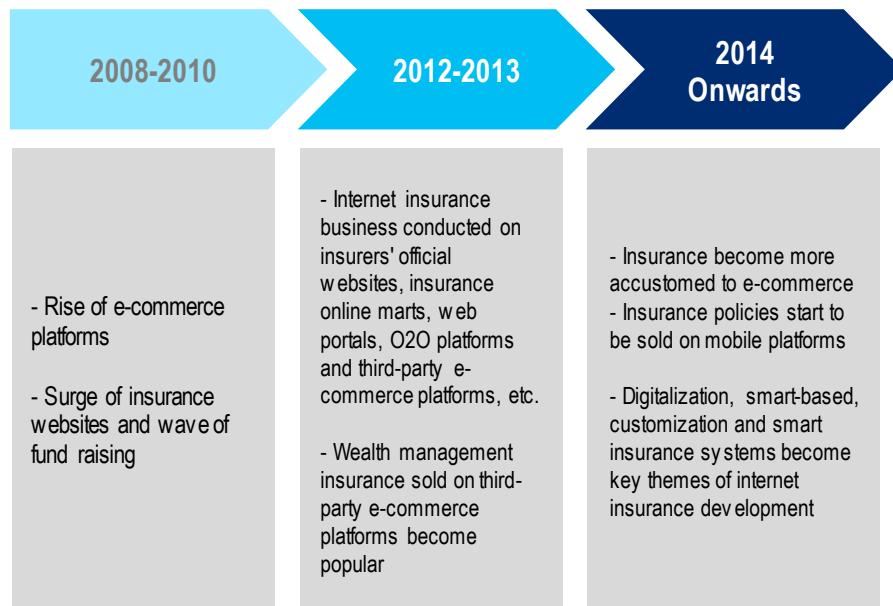
Separately, Internet giants in China have also recently embarked on exploring the Internet insurance industry. Not only did they introduced insurance products on their existing e-commerce and social media platforms, but also invested in insurance companies and brokerage houses. Internet companies' participation also led to the emergence of mutual aid platforms, which are programs wherein members could attain health protection by contributing to others' medical expenses.

Figure 4. Key Milestones of China's Internet Insurance Development



Source: China Banking and Insurance News, Zhongguan Internet Finance Institute, iResearch, Media Reports, Citi Research

Figure 5. Recent progression of Internet Insurance



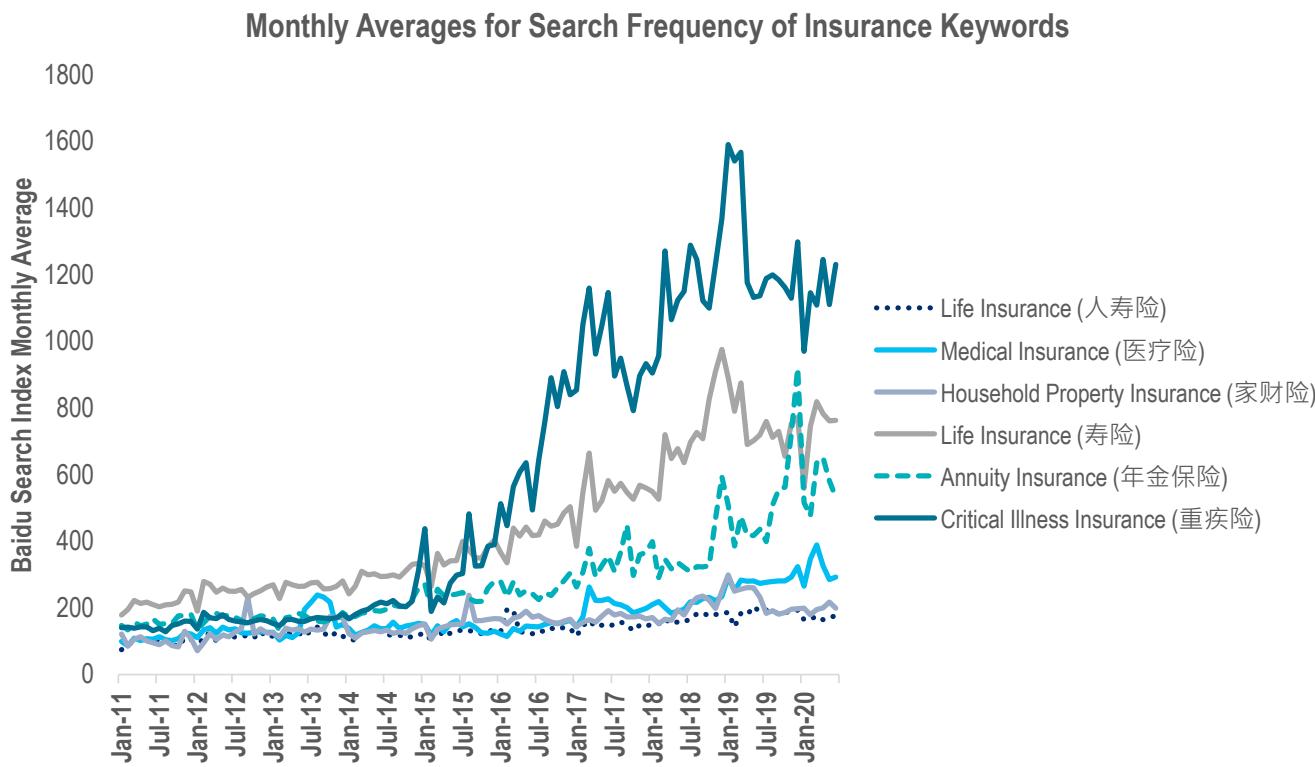
Source: China Banking and insurance News, Zhongguan Internet Finance Institute

Promising road ahead as more take to the Internet for insurance education

Under an Internet economy, people are progressively going online for acquiring insurance-related information and purchasing relevant products. With the help of our **Research Innovation Lab**, we calculate the monthly average search frequency for insurance keywords over the last decade. Search frequency of insurance-related keywords exhibited a notable upward trend from 2011. Now, much more netizens have become accustomed to educate them about insurance products online, and choose to purchase insurance products online, especially the less-complex products.

Searches for life insurance also started to pick up steam in the last few years. Searches for critical illness products, which is the second-highest searched keyword among our selection, might surpass auto insurance searches in the foreseeable future. Rising interest in life protection is evident, hence we anticipate an increasingly larger proportion of user education to be completed online in the future.

Figure 6. Search frequency for insurance keywords is on the rise, especially since 2016, with critical illness and life topping the list



Source: Research Innovation Lab, Citi Research, Baidu

Dominated by life and health policies

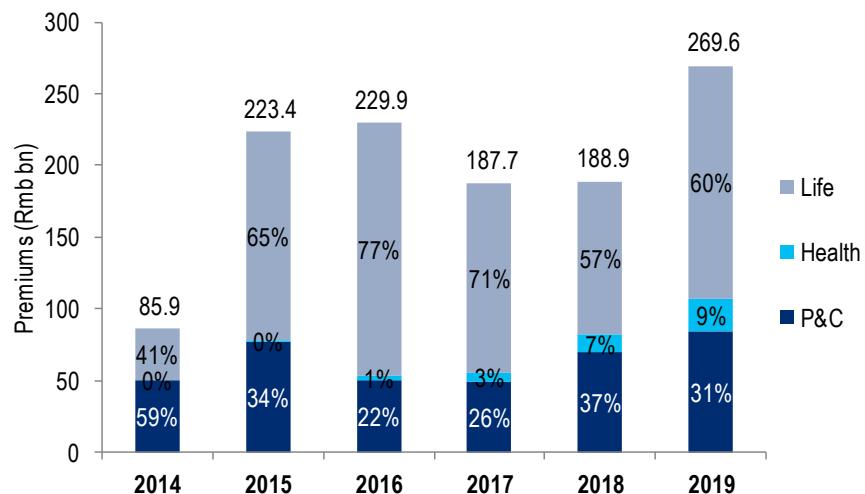
Internet insurance premiums in the past five years comprised of life premiums (c.60%~70%), P&C premiums (c.20%~30%) and health premiums (single-digit %). Recently Internet health insurance has started playing a more prominent role with its market share rising to almost one-tenth of the total Internet insurance premiums in 2019.

By segment, in 2019, **life and health insurance** gross premiums via online purchases totaled Rmb186bn, after a strong 56% yoy growth. Internet life premiums leaped fivefold during 2014-2019, signaling consumers' enhanced confidence in life policy purchases online and rising insurance awareness.

In terms of premium mix, in 2019, life policies took up 65% of the Internet L&H premiums. This was followed by annuity premiums, which continue to contribute one-fifth of total Internet L&H premiums. Health accounts for 13% of total Internet L&H premiums, followed by 3% contribution from accident-related policies.

Figure 7. Life premiums take up c.60%~70% of Internet insurance premiums

Premiums of China's online insurance market by product



Source: Insurance Association of China

Figure 8. Internet life and health insurance premiums totaled Rmb186bn in 2019

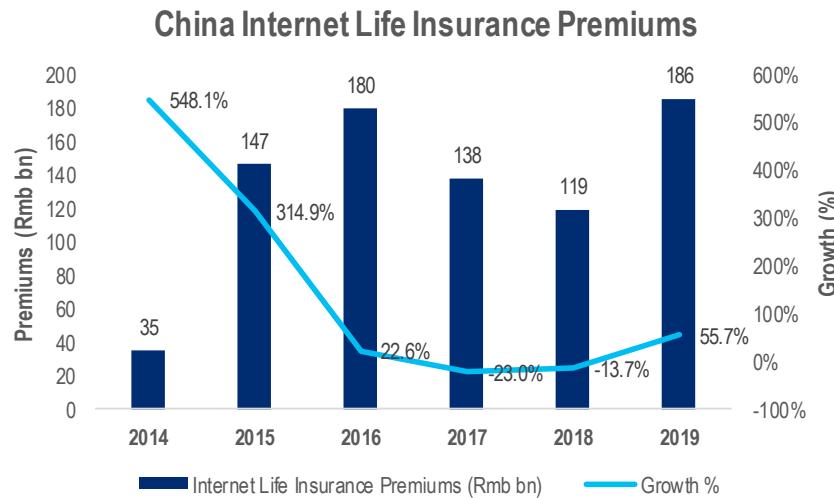
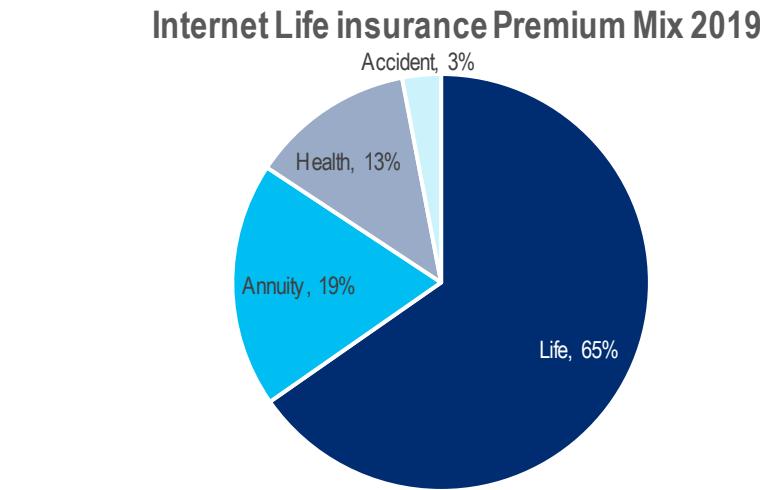


Figure 9. Life policies took up almost two-thirds of the Internet L&H premium mix in 2019



Health policies, in particular, have gained a lot of traction online. Their premiums doubled in 2018 and touched Rmb24bn in 2019. Accordingly, the proportion of health premiums in overall Internet L&H premiums rose from a mere 0.7% in 2015 to more than 13% in 2019.

Within the niche market of online health insurance, indemnity health policies, including the popular 'million dollar' reimbursement medical policies, formed 61% of Internet health premiums in 2019. The reason for such popularity is that indemnity-type policies are usually purchased annually and involve a smaller lump sum amount. Critical illness policies bring slightly more than one-fifth of total internet health premiums, while cancer-specific premiums make 4%.

Figure 10. Health insurance take up an increasingly large portion of Internet life premiums

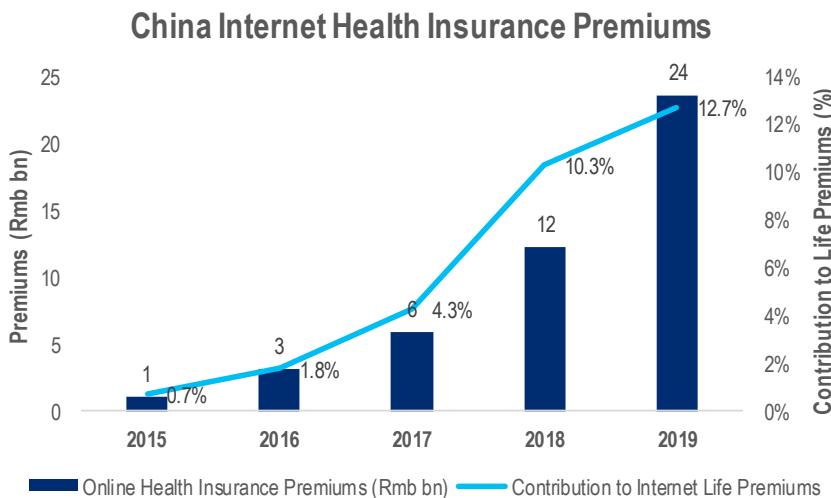
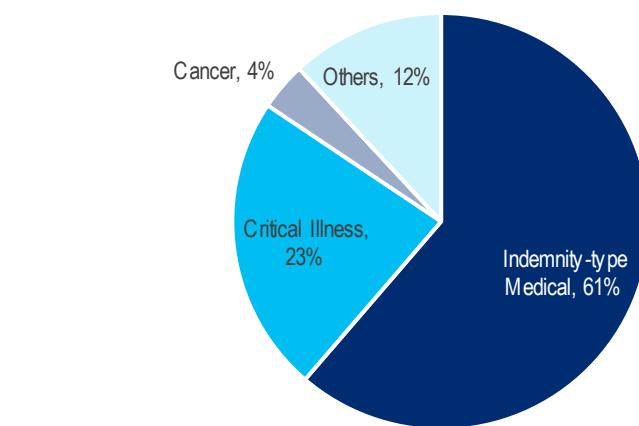


Figure 11. Indemnity health insurance plans contribute to 61% of Internet health premiums

Internet Health insurance Premium Mix 2019



Source: Insurance Association of China

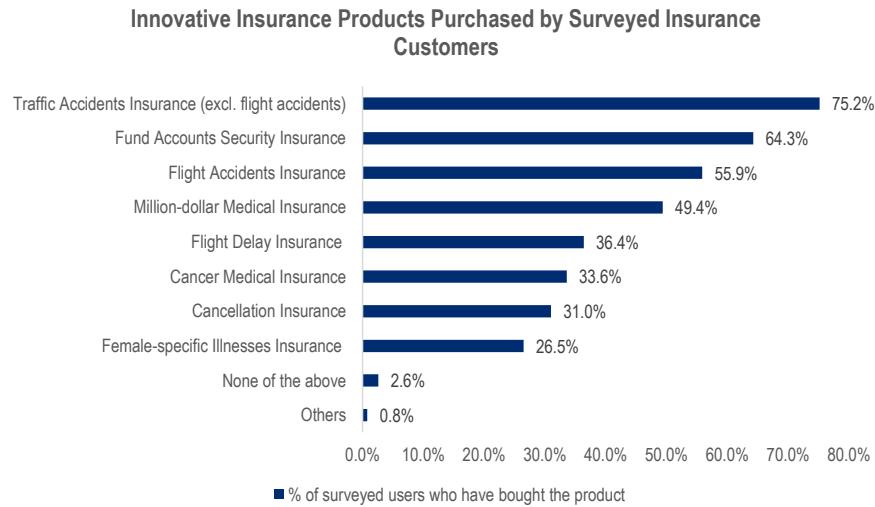
For the online P&C segment, premiums totaled Rmb84bn in 2019, registering a healthy 21% yoy growth. P&C Internet premiums exhibited a similar trend through 2015-2019, which shrank significantly along with the downturn in auto premiums in 2016-2017. In 2018-2019, P&C premiums picked up, fueled by the growth of non-auto premiums. In particular, accident & health, credit guarantee and return freight insurance exhibited continuous growth momentum through 2016-2019. Consequently, Internet non-auto premium mix hiked to 67% in 2019.

The rise of e-commerce and mobile payment also propelled the development of innovative P&C online insurance products. According to iResearch's survey in 2018, more than 97% of the 2,994 surveyed insurance users purchased innovative insurance products. Innovative products are often sold via e-commerce platforms, social media platforms, online travel agencies and insurance platforms. The most

popular product types include travel accidents insurance, fund accounts security insurance, flight accidents and ‘million-dollar medical’ policies that arose in the recent years.

For instance, ZhongAn introduced the first ‘million-dollar medical’ policy in the market, their flagship Personal Clinic Policy. ‘Million-dollar medical’ policies are indemnity-type medical policies, for which clients are entitled to a high sum-insured of over Rmb millions at very affordable pricing (annual premiums usually cost hundreds of Rmb per year). Since then, many insurers have introduced more than medical products to the market, accumulating a count of more than 300.

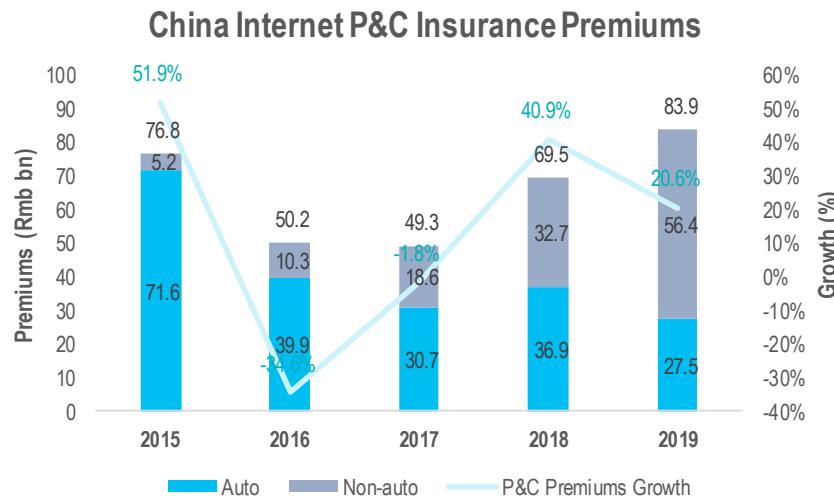
Figure 12. Traffic and flight accident, fund accounts security and ‘million-dollar medical’ policies claimed the top spots among innovative insurance products in 2018



Note: A sample size of 2,994 insurance users were surveyed in May 2018

Source: iResearch

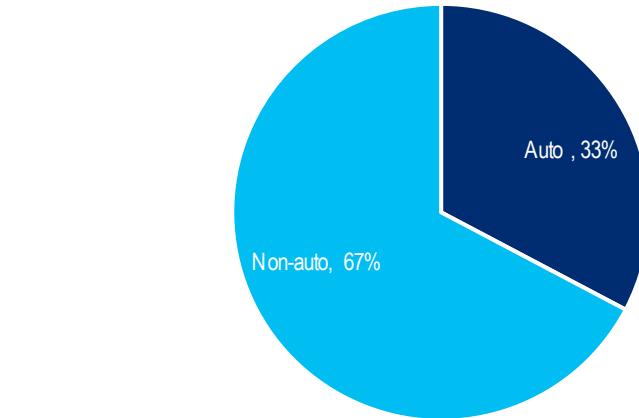
Figure 13. Internet P&C exhibits similar trend as P&C sector, recent growth fueled by non-autos



Source: Insurance Association of China

Figure 14. Non-auto premiums took up two-thirds of Internet P&C premiums in 2019

Internet P&C insurance Premium Mix 2019



Source: Insurance Association of China

Distribution mainly through third parties

Third-party platforms have been overwhelmingly dominated the sales of the fast growing Rmb270bn online insurance market in the past years, according China Insurance Association.

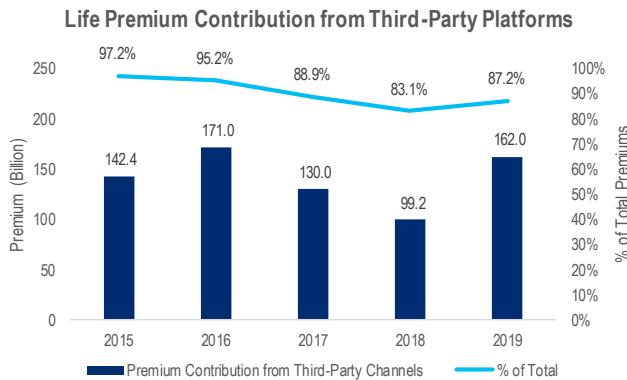
For online life insurance, 80~90% of industry premiums were sourced from third-party platforms during 2015-2019. Among the 62 online life insurers in China, 61 companies work with third-party platforms for distribution in 2019, while 50 of them have also set up their own proprietary platforms for Internet life insurance sales.

Insurance companies' official websites and mobile apps are their major proprietary sales channels. The number of customers (in terms of person-times) on those websites had registered a huge surge in 2018, but slightly retreated in 2019. We believe official websites and channels play a more significant role for listed insurers due to their brand effects, especially after the ongoing pandemic situation, as insurers have devoted huge resources into their online platforms development. In 2019, listed players like Ping An Life, CPIC Life and China Life recorded the highest page views on their official websites. For mid-to-small sized insurers, sales could be relatively dependent on third-party channels and other channels.

For online P&C insurance sales, third-party platforms' market share climbed quickly from a mere 8% in 2015 to 69% in 2019, according to Insurance Association of China. Non-intermediary third-party Internet platforms (which usually provide marketing, technical support and customer services, etc.) contributed 46% of Internet P&C premiums in 2019, driven mostly by non-auto insurance such as credit and guarantee, accident and health (A&H) and return freight insurance. Insurance intermediaries took up 23% of the pie. Proprietary platforms of insurance companies, which primarily sold auto insurance (accounting for 95% of insurers' proprietary mobile platform premiums in 2019), recorded some premium contribution slide along with auto businesses shrinkage in recent years.

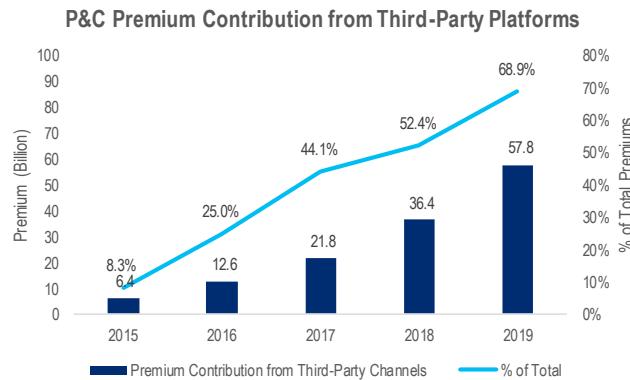
From a volume perspective, payment-related platforms were the most popular channel among netizens for Internet insurance purchases, according to a survey conducted by Tencent's WeSure. 44% of the surveyed purchased insurance policies via payment tools like Alipay and Wechat Pay. Insurance companies' official websites, applications and content accounts came next at 30%. Meanwhile, 19%/13% of surveyed had purchased policies via third-party platforms / banks, respectively. Notably, around 10% of the interviewees had conducted purchases via e-commerce platforms, online travel agencies and Internet finance platforms. This denotes the level of significance of scenario-based insurance policy purchases.

Figure 15. Third-party platforms contribute to 80%~90% of online life premiums from 2015-2019



Source: Insurance Association of China

Figure 16. More Internet P&C premiums sourced from third-party platforms and took up more than two-thirds in 2019



Source: iResearch, Insurance Association of China

Figure 17. Customers purchasing policies through insurers' website almost doubled in 2018 but retreated slightly in 2019

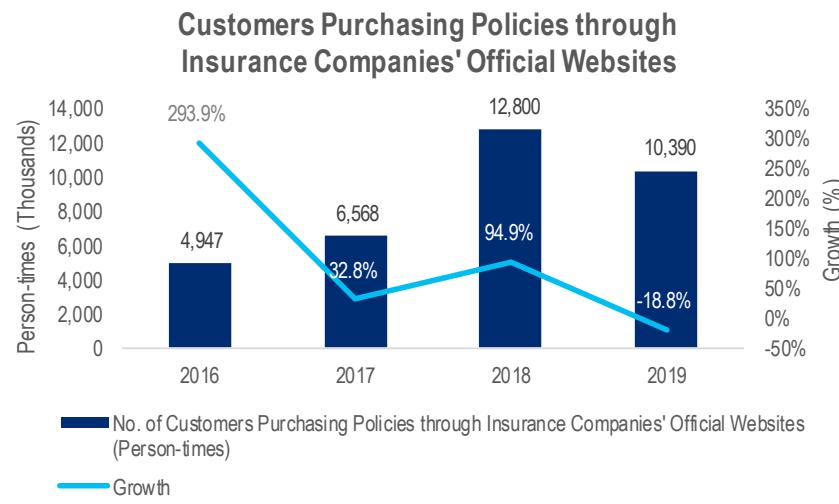


Figure 18. Listed life players' official websites recorded the highest page views in 2019

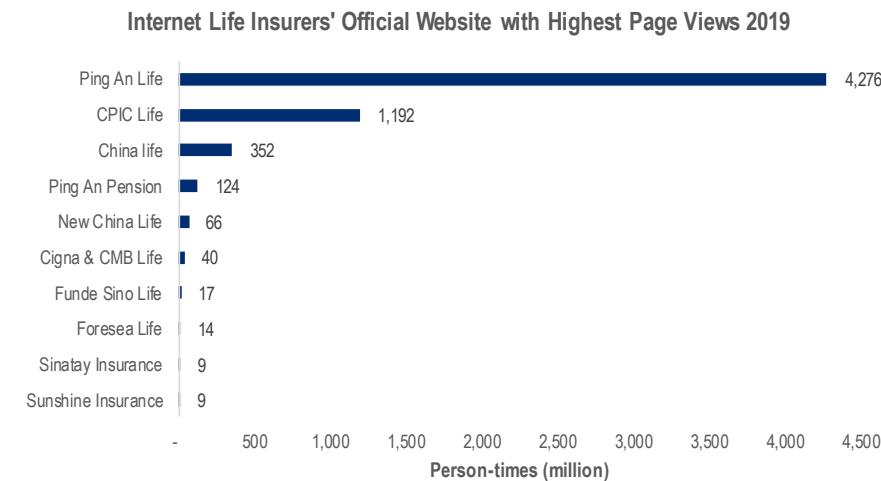
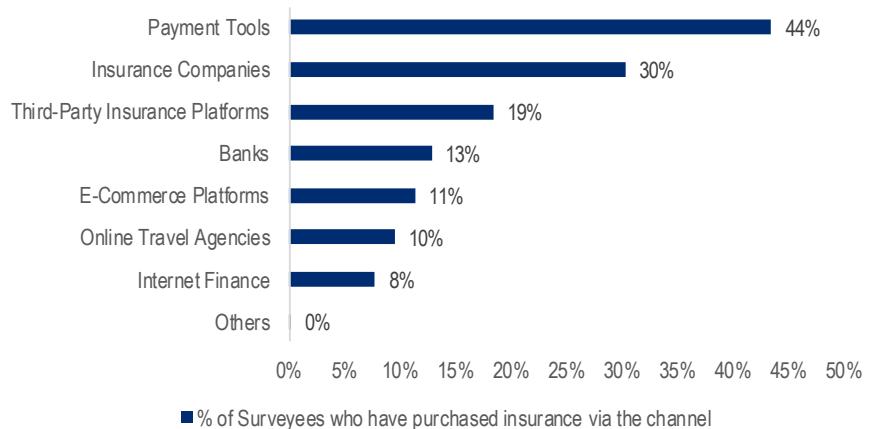


Figure 19. Payment tools, insurance companies and third-party platforms the most popular according to survey

Channels for Internet Insurance Purchase 2018



Source: WeSure, Tencent CDC

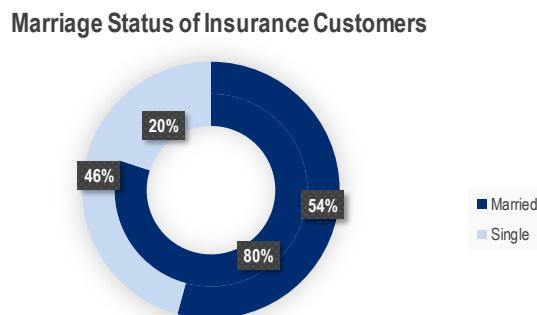
Attracting a large young and well-educated population

According to a Tencent's survey, it is estimated that the number of internet insurance customers were around 222mn in 2018, representing 28% of the total netizens. A typical portrait of internet insurance purchaser could be described as a young netizen aged near 30, married, well-educated and earning higher than peers, according to surveys.

In terms of age, netizens on average purchased their first online insurance policy at the age of 28.7 in 2018, and it was lower for first and second tier cities' netizens at age 27.3 and 27.8 respectively, according to Tencent's survey. Per iResearch's survey in 2018, online customers are mostly aged between 26-35 years. The results are consistent with disclosures of Huize, an independent online insurance broker focusing on long-term critical illness insurance, for which average age of clients was 32 years old in 2019. The online insurance policyholders are relatively younger than the overall average age of industry's customers.

In addition, it was unveiled that netizens who had purchased insurance online in the past were often married, according to Tencent. Further, online buyers were mostly higher earners among the interviewees, with 53% earning Rmb8,000 or above monthly. The survey also suggested that such buyers generally had higher education backgrounds, with around 80% having completed tertiary education or above.

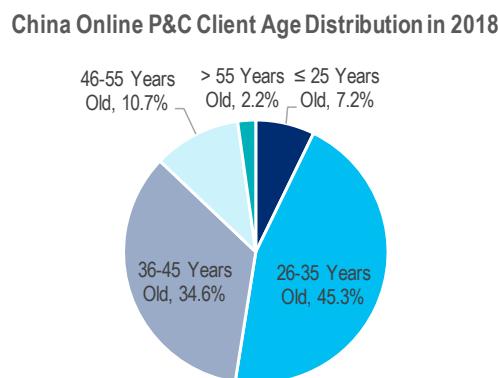
Figure 20. Insurance customers were mostly married according to the WeSure survey



Outer Circle: Insurance Customers; Inner Circle: Internet Users

Source: WeSure, Tencent CDC

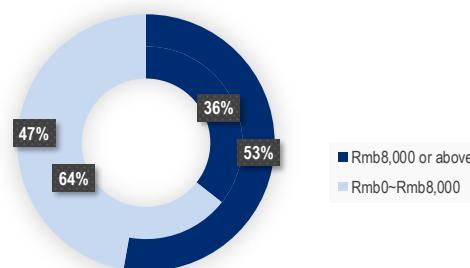
Figure 21. Most online P&C customers were 26~45 years old in 2018



Source: iResearch

Figure 22. Insurance customers generally made higher income

Monthly Income of Insurance Customers

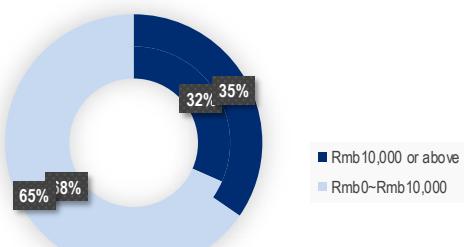


Outer Circle: Insurance Customers; Inner Circle: Internet Users

Source: WeSure, Tencent CDC

Figure 23. A higher proportion of insurance customers make Rmb10,000 or above vs overall Internet users

Monthly Income of Insurance Customers

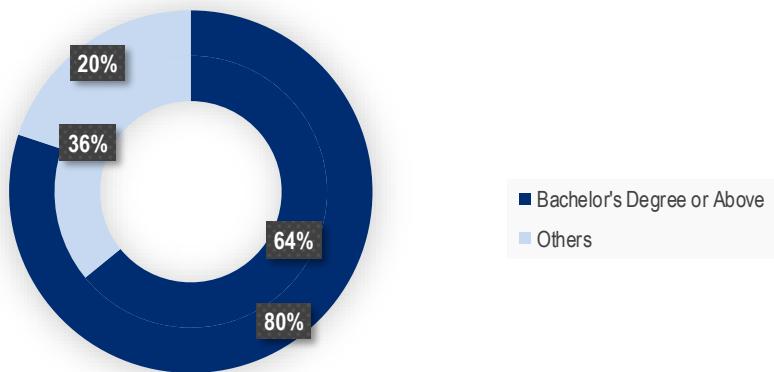


Outer Circle: Insurance Customers; Inner Circle: Internet Users

Source: iResearch

Figure 24. Insurance customers are mostly well-educated with 80% having a bachelor's degree or above, according to WeSure

Education Background of Insurance Customers



Outer Circle: Insurance Customers; Inner Circle: Internet Users

Source: WeSure, Tencent CDC

InsurTech Sharpening Competitive Edge of Insurance Companies

In addition to broadening distribution channels for the insurance industry, technologies also help insurance companies sharpen their competitive edge in different stages of the insurance value chain from product design to claims settlement. Insurance companies have placed more focus on innovation in recent years in the face of new technologies such as cloud computing, Artificial Intelligence, Big Data, Blockchain and Internet of Things (IoT). More often than not, the technologies are utilized in combination to refine insurance operations. Many potential industry disruptors have emerged in the recent past, and could drastically alter the industry landscape in the future.

Figure 25. Application of InsurTech in the insurance process chain

	Pre-transaction	Transaction		Post-transaction
	Product Design	Sales and Marketing	Underwriting	Claims Settlement
Cloud	<ul style="list-style-type: none"> • Shorten launch period • Reduce hardware costs • Scalable operations 	-	<ul style="list-style-type: none"> • Scalable operations 	<ul style="list-style-type: none"> • Scalable operations
Artificial Intelligence	<ul style="list-style-type: none"> • Product customization 	<ul style="list-style-type: none"> • Customer services • Insurance consultancy • Distribution network management 	<ul style="list-style-type: none"> • Smart underwriting • Identity verification • Smart 'double-recording' 	<ul style="list-style-type: none"> • Smart loss determination • Document OCR • Anti fraud
Big Data	<ul style="list-style-type: none"> • Pricing accuracy enhancement • Product customization • Timely product updates 	<ul style="list-style-type: none"> • Targeted marketing (customer profiling) • Cross-selling • KYC 	<ul style="list-style-type: none"> • Automatic underwriting • Anti-fraud 	<ul style="list-style-type: none"> • Anti-fraud • Data association analysis
Blockchain	<ul style="list-style-type: none"> • Blockchain insurance policies • Innovative product design • Mutual insurance 	-	<ul style="list-style-type: none"> • Simplify underwriting • Uniqueness verification 	<ul style="list-style-type: none"> • Smart contracts • Auto claims settlement • Anti fraud
Internet of Things	<ul style="list-style-type: none"> • Pricing accuracy enhancement • Wearables 	-	<ul style="list-style-type: none"> • Dynamic underwriting with up-to-date info • Wearables • Household property 	<ul style="list-style-type: none"> • Anti fraud • Vehicles and traffic management

Source: China Banking and Insurance News, Zhongguan Internet Finance Institute, iResearch, Citi Research

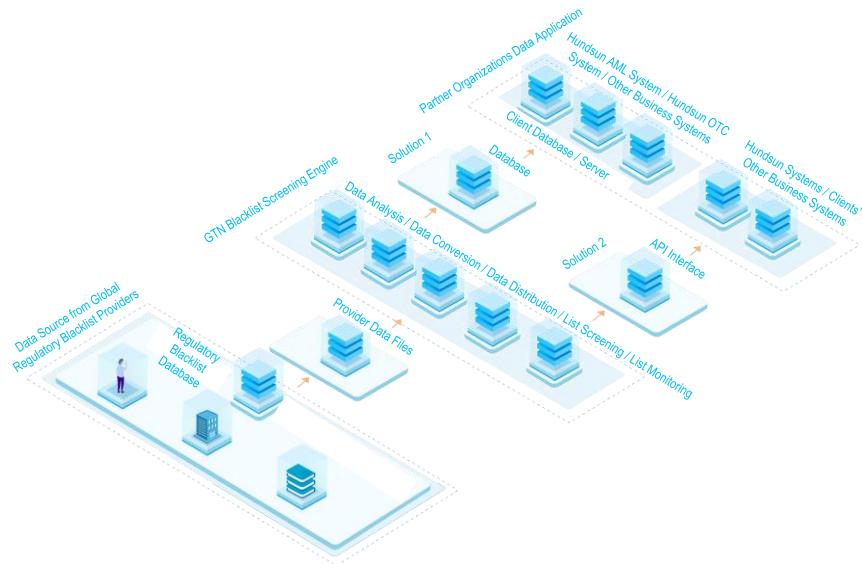
Cloud

Rather than facilitating a specific procedure in the insurance value chain, cloud computing serves as an infrastructure for insurance companies. By utilizing cloud-based services companies are able to establish more scalable operations. Cloud computing supports insurance companies on the back-end, reduces hardware costs and shortens product introduction periods. Moreover, insurance companies could also expand their capabilities via leveraging external resources like IaaS (Infrastructure as a Service), PaaS (platform as a service) and SaaS (Software as a Service).

As an example, **Hundsun Cloud** provides a cloud-based KYC solution for financial institutions like insurers. It consolidates regulatory blacklist data across the globe, which is offered to clients in the form of a database or API. This could be applied for insurers' KYC and anti-money laundering. Hundsun Cloud boasts of the accuracy and the expeditious implementation (as quick as three days) of the solution.

Cloud technology also helps insurers raise efficiency. According to **Ping An**, Ping An Life has migrated its systems onto the cloud ecosystem. Its system deployment now takes only around one week, a substantial improvement from the original deployment time of one month, according to the company. They also noted that cost of deployment reduced by 40% compared to traditional approaches, while life contract signing time reduced by 75%.

Figure 26. Hundsun Cloud offers cloud-based KYC solutions for institutions including insurance companies



Source: Company Website, Citi Research

Figure 27. Ping An has developed its cloud capabilities covering different needs

Services	Applications
SaaS	Financial, Healthcare, Auto, Real Estate, Smart City
PaaS	AI, Data, Blockchain
IaaS+IaaS	Container, Communication package, Intelligent operation, Middleware
	Compute, Storage, Network, Database, Security, Compliance
Infrastructure	IDC (32 city data centers), 3-layer CDN

Source: Company Reports

Figure 28. Ping An Life leveraged on cloud technology to raise its operational efficiency

Ping An Life's Application of Cloud Technology	
Deployment	Reduced from 1 month to 1 week
Costs	Costs 40% lower vs. traditional infrastructure approach
Efficiency	Life contract signing time down by 75%
Systems	120+ systems migration onto cloud; successfully ensured sales activity with \$15bn daily

Source: Company Reports

Artificial Intelligence

Artificial Intelligence is expected to add value to multiple stages of the insurance value chain. The major applications include:

- **Product design** – Enabling product and pricing customization via machine learning and customer profile analysis
- **Sales and marketing** – Offering i) smart 24/7 AI-based customer service, based on knowledge graphs and natural language processing (NLP), ii) smart insurance consultancy, recommending suitable products to potential customers after grasping customer profile with questionnaires and external data input; iii) AI-based distribution network management, such as aiding agency recruitment.
- **Underwriting** – Facilitating i) identity verification via facial, image, voiceprint recognition to raise underwriting efficiency; ii) identification of high-risk clients and irregularities via predicitive modelling.
- **Claims settlement** – i) Raising claims settlement efficiency with Optical Character Recognition (OCR) for document submission; ii) Automating damage assessment, such as self-service vehicle damage assessment with image and video uploads from clients' end; iii) Facilitating risk management and anti-fraud with machine learning.

For example, Ant Financial introduced **Ding Sun Bao**, an AI-based vehicle damage assessment product which could be embedded into insurance companies' claims settlement platforms. Customers need only to upload pictures of the damaged vehicle post-accident to the platform, to obtain a damage evaluation. According to CPIC, the technology is expected to help save claims processing costs of c.Rmb2bn per year.

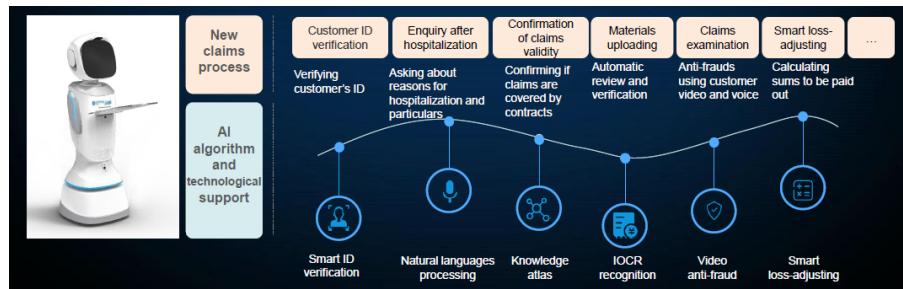
CPIC launched a number of AI-based Lingxi robots to better serve customer needs. Lingxi No.1 was brought into seven hospitals in Shanghai to provide prompt claims handling to customers after their consultations. Lingxi No.2 was installed in customer service centers to verify customer identity and handle customer queries.

Figure 29. Ant Financial's vehicle damage assessment Ding Sun Bao at work



Source: ThePaper.cn

Figure 30. CPIC launched the Lingxi Robot to support customer service and claims management



Source: Company Reports

Big Data

Insurers have access to a vast client base along with their demographics, health background and other attributes. As the law of large numbers prevails in insurance operations, big data is expected to further enhance insurers' profitability and efficiency.

- **Product design** – Facilitating product pricing with a wide range of parameters with the help of big data; helping insurers to be more fast-to-market in addressing customer needs and launching new products
- **Sales and marketing** – Refining sales and marketing efforts by targeting the right customers with the help of big data analytics and extracting customer profiles and attributes. This is expected to help improve client conversion and reduce client attrition as well.
- **Underwriting** – Enabling automatic underwriting with big data analytics model to raise underwriting efficiency, as well as detect potential frauds and adverse selection.
- **Claims settlement** – Fostering potential fraud detection with data analysis.

Huize leverages on its big data analytics capabilities to predict the likely most successful product among its target customers. The company stores multi-dimensional data of their online platform users including user behavior like browsing information, time and location, income and health condition, etc. These data are then utilized for data mining and analysis of client needs and behaviors.

Huize has established two major data pools to enhance their product design capabilities, namely i) a client demand data pool, to help the company understand clients' protection demand in various life stages; and ii) an insurance product data pool, to map the competitive landscape and business trends with products offered in the market and their insurance partners. For example, Huize was a pioneer in introducing high-risk outdoor activities-related accidental insurance products based on the data analysis, which later became popular among customers.

Huize announced to jointly-establish a big data lab with the Southwestern University of Finance and Economics in Chengdu, China in June 2020. The company noted that one of the first core projects for the lab was to map out an insurance industry knowledge graph.

Blockchain

Blockchain creates a secure ledger of information that leaves a clear audit trail, which makes the network both transparent and creditable. Blockchain could be utilized in the whole operational process of insurance companies, including contract signing, operations, claims settlement, reinsurance and investments, etc. The technology could be very impactful for the insurance industry, applications include:

- **Product design** – Enabling the design of microinsurance with the use of smart contracts based on Blockchain, as well as raising the fairness and transparency of insurance transactions.
- **Sales and marketing** – Enabling smart contracts, which stores customer intention data with blockchain in order to avoid potential customer disputes.
- **Underwriting** – Raising underwriting efficiency with creditable and highly transparent verification processes based on Blockchain technology.
- **Claims settlement** – Allowing automatic claims settlement with the use of Blockchain-based smart contracts. As the identity of participants are secure and immutable, the technology helps identity and data verification, consequently prevents insurance frauds.
- **Reinsurance** – Empowering speedy settlement and data exchange between direct insurers and reinsurers.

As of October 2019, **ZhongAn** had filed for 129 Blockchain-related patents. ZhongAn's self-developed blockchain protocol implementation **Anchain** is one of the company's major blockchain offerings, which serves as a foundation for developing blockchain applications. Anchain was also one of the first products that passed the Blockchain Reference Architecture test by China's Ministry of Industry and Information Technology.

ZhongAn's **Ti-Capsule**, a peer-to-peer and secure data storage system, enables companies including insurers to store documents securely and keeps them from modifications. Sensitive information, such as customer identities, health information and e-contracts could be stored and that data would stay secured even if one of the

data centers come under attack. This goes on to enable derivatives such as digitally-verified contracts.

Figure 31. ZhongAn develops own blockchain protocol implementation Annchain



Source: Company Reports

Internet of Things

Internet of Things comprises devices and network which would collect and communicate data. If applied to the insurance industry, the data would likely aid insurers to price more accurately and hone customer services.

- **Product design** – Enhancing pricing accuracy with more comprehensive and scenario-based data. Insurers have also started introducing innovative insurance products in connection with wearables and other devices.
- **Underwriting** – Potential introduction of dynamic underwriting mechanism to price insurance policies real-time.
- **Claims settlement** – Improving detection of frauds with comprehensive data in niche scenarios. Insurers could also introduce IoT-based monitoring systems for customers to help them manage insured targets, such as households, to reduce the no. of accidents and claims.

Several domestic insurers, such as **PICC**, **Ping An**, **Sunshine Insurance** and **ZhongAn**, are said to have started exploring **usage-based insurance (UBI)**. UBI is a type of auto insurance which involves risk analysis with data retrieved from odometers and other devices to price auto insurance.

ZhongAn Online launched a program '**GoGo Chicken**' in 2017, which allows consumers to track the trails of the organically farmed chickens they have purchased with GPS tracking bracelets. This could be useful to help alleviate consumers' food safety concerns in China.

A Bustling Market with a Variety of Players

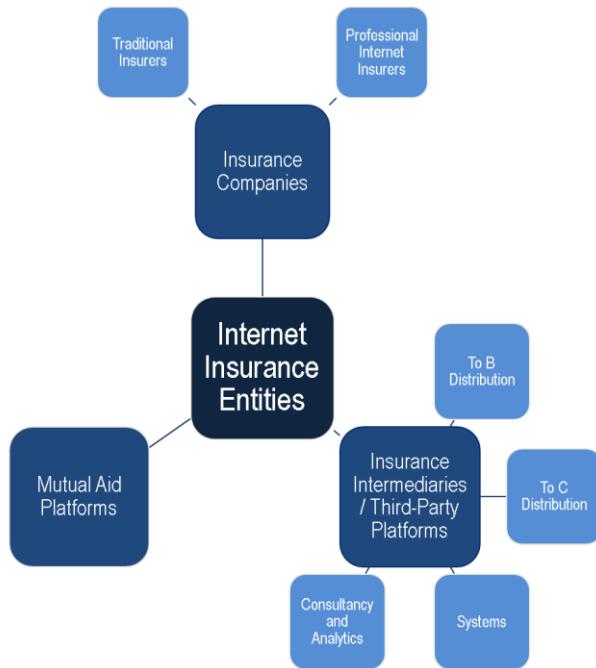
While traditional insurers like Ping An, CPIC and China Life are looking for ways to break through their traditional sales models towards online distribution, other market players such as internet giants Tencent and Ant Financial and plenty of innovative online platforms and InsurTech companies have joined the battlefield to take a piece of the pie.

Many traditional insurers have engaged in the Internet insurance business in recent years, on the back of development of an Internet economy and boosted by the recent lockdowns under COVID-19. Among the various players, mid-sized insurers, in particular bank-affiliated players, have exhibited an edge over large players in the life market with their existing online banking platforms. On the contrary, large players remain strong in the Internet P&C market. But, specialized online P&C insurers, especially ZhongAn, are on track to take up a larger portion of the market.

Third-party platforms, including licensed insurance intermediaries and non-intermediary third-party platforms, are critical players in the Internet insurance market as well. Internet insurance intermediaries alone totaled 498 companies as of April 2020 in China. While licensed players distribute insurance products to individual customers and corporate customers, non-licensed third-party platforms often take up the roles of sales and marketing, technical support and customer services. Third-party platforms contribute to a large proportion of Internet life premiums, they also play an increasingly important role in the Internet P&C field. **Therefore, third-party platforms are expected to be strong disruptors of the industry equipped with their unique Insurtech know-hows.**

The rise of mutual aid platforms has bumped up growth of online insurance in recent years. Differing from mutual insurers, mutual aid platforms do not provide insurance products to clients. Instead, they provide protection to users if they are diagnosed with critical illnesses, via sharing of medical costs among pool members. Mutual aid platforms provide an alternative source of risk coverage to residents and have gained popularity rapidly. These platforms are viewed as powerful catalysts of insurance demand in China.

Figure 32. Market players in the Internet insurance field



Source: Media Reports, Citi Research

Traditional insurers – Smaller-sized life players cutting through

More traditional insurers have jumped on the bandwagon of Internet insurance in recent years, as consumers (particularly the younger generation) have become more accustomed to online consumption. According to the Insurance Association of China, 62 life insurance companies and over 70+ P&C insurers offered Internet insurance products in 2019.

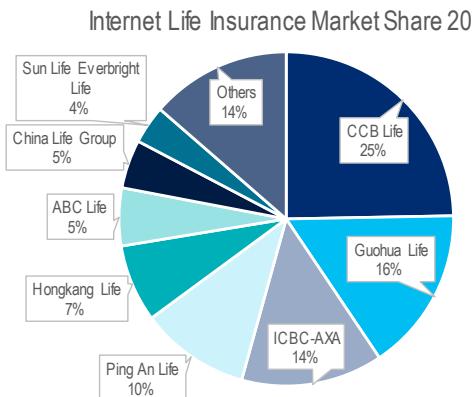
On the life side, mid-to-small sized insurers, especially bank-affiliated ones, have been showing an edge over leading insurers. In 2018, CCB Life led the pack with 25% of online life market share, followed by Guohua Life at 16% and ICBC-AXA at 14%. Internet channels contributed to c.70%/33%/48% of CCB Life/Guohua/ICBC-AXA premiums in 2018 respectively, while Internet premiums merely accounted for 2% of Ping An Life premiums in 2019. Six players among the top ten players in 2018 were bank-affiliated, and leveraged on both their existing online banking platforms for Internet insurance sales and third-party platforms.

Life insurers source most of their Internet life premiums from third-party channels, which contributed to 80%~90% of their premiums over 2015-2019. Insurers' own proprietary platforms (including official websites, mobile applications and other channels) have risen in importance of late, led by listed insurers, for which its contribution mix has enhanced notably from 2.8% in 2015 to 12.8% in 2019.

According to Insurance Association of China, Ping An Life generated the highest page views of 4.3bn person-times in 2019. CPIC Life, China Life, Ping An Pension and NCI followed in terms of page views. We believe this is due to listed insurers' brand effect.

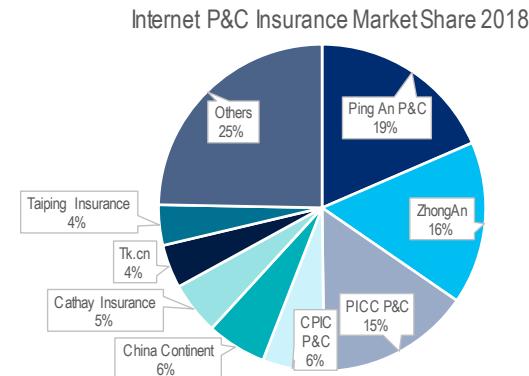
Contrarily, market share rankings of online P&C industry are still largely consistent with the traditional market dominated by listed players. Ping An P&C took up almost one-fifth of the market in 2018 while PICC 15%. The only exception was ZhongAn Online P&C which achieved 16% market share.

Figure 33. CCB Life, Guohua Life and ICBC-AXA lead with Internet life premiums market share



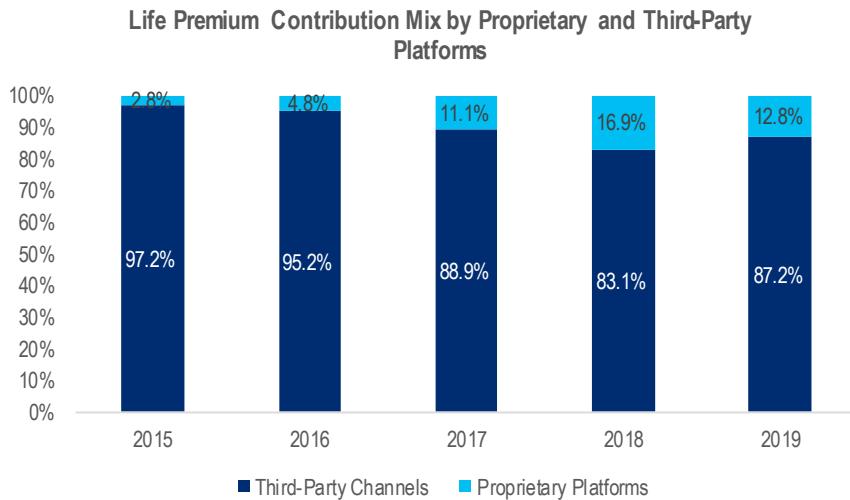
Source: Insurance Association of China

Figure 34. Listed players take up the largest share of Internet P&C insurance in 2018



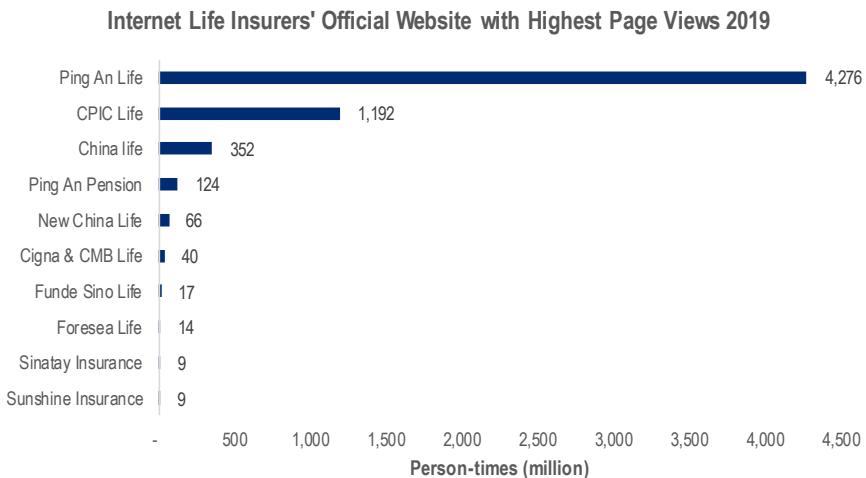
Source: Insurance Association of China

Figure 35. Life insurers rely on third-party channels for Internet life insurance



Source: Insurance Association of China

Figure 36. Listed life insurers had the highest page views of their official websites in 2019



Source: Insurance Association of China

Case Study: Ping An Insurance

Ping An Insurance, a leading insurance group in China, provides a wealth of financial and technological services. Ping An underwrites and distributes its own life and P&C insurance products, as well as invests in technology solutions both in and out of the insurance ecosystem.

Ping An's exposure to Internet insurance and InsurTech could be categorized into:

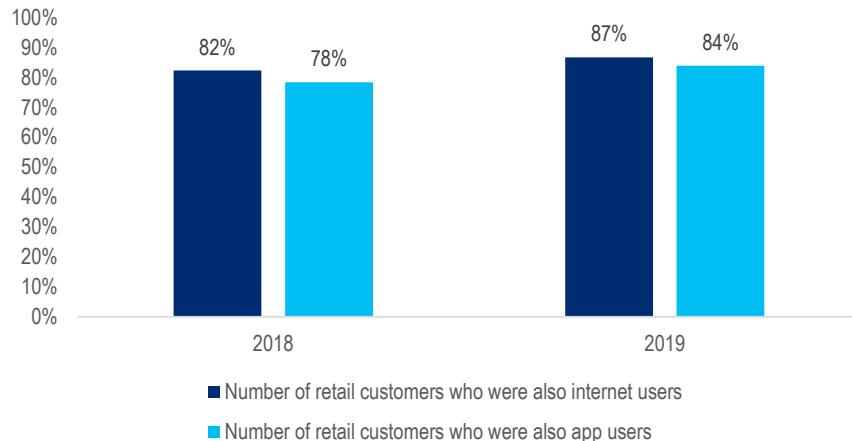
■ Insurance product distribution

Ping An distributes some of its life and P&C products via its proprietary channels (official website, applications, social media platforms) and e-commerce platforms like Tmall. More importantly, Ping An was able to source new customers from

Internet users within the Group's ecosystems. In 2019, 40.7% of Ping An Group's new customers were sourced online. An increasingly larger proportion of Ping An's retail customers are also Ping An's Internet/app users, accounting for 87%/84% of total retail customers in 2019 respectively.

Figure 37. Online channels are now vital customer acquisition and engagement channels for Ping An Group

Online Retail Customers of Ping An Group



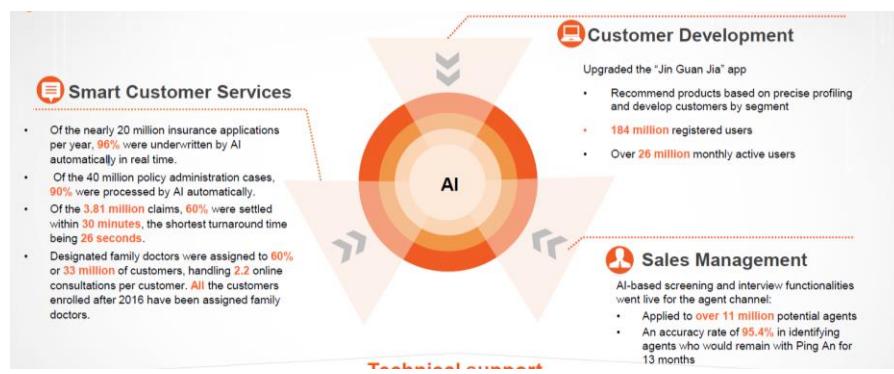
Source: Company Reports and Citi Research Estimates

■ Improvement of operational efficiencies with technology

Ping An Life simplifies policy processing with Artificial Intelligence. The company cites 96% of its policies are underwritten automatically and 90% of policy administration cases are processed automatically. They have also employed technologies to speed up claims settlement with 60% of claims settled within 30 minutes. Like many other domestic players, Ping An also conducts digitalized agency screening and interviews empowered by AI.

Ping An utilizes technological innovations in P&C businesses. The company provides AI image-based loss assessment services for auto insurance and notes c.25% of claims are handled with smart claims management.

Figure 38. Ping An Life equips customer services and agency management with AI



Source: Company Reports

Figure 39. Ping An's P&C businesses is empowered by technology-based innovations



Source: Company Reports

■ Incubation of technology companies

Ping An has incubated a number of technology companies which generate aggregate revenues of Rmb82.1bn in 2019. The developments of innovative solutions and technological breakthroughs aid Ping An to further deepen its reach in the technology field, as well as create synergies with the company's core insurance businesses.

Figure 40. Ping An's smart customer service demonstration with AI



Source: Company Reports

Figure 41. Medicine info-tracing and e-medical record sharing enabled by Blockchain



Source: Company Reports

Figure 42. Ping An has developed its cloud capabilities covering different needs

Services	Applications
SaaS	Financial, Healthcare, Auto, Real Estate, Smart City
PaaS	AI, Data, Blockchain
IaaS+/IaaS	Container, Communication package, Intelligent operation, Middleware
	Compute, Storage, Network, Database, Security, Compliance
Infrastructure	IDC (32 city data centers), 3-layer CDN

Source: Company Reports

Specialized Internet Insurers – Rising Stars Led by Zhong An

To promote the development of internet-based insurance business, CBIRC in 2013 designated a specific category of online-only insurers, the 'Specialized Internet Insurers'. Four licenses have been granted to conduct online only P&C insurance businesses, namely to ZhongAn Online, Tk.cn, Anxin P&C and E An P&C.

In aggregate, the four online-only insurers have seen robust premium growth (30%~180%) over the past few years. Their combined premiums reached Rmb23.5bn in 2019, representing more than one-fourth of the online P&C market. The online insurers mostly sustained their premium growth momentum in 2019, except E An that registered a premium contraction of 19% yoy. Among them, Zhong An was the first and largest online-only P&C insurer, established in 2013 by Ant Financial, Tencent and Ping An. By 2019, Zhong An took up two-thirds of the total premiums underwritten by the four online-only insurers.

Strategy-wise, the four online insurers are quite diverse. ZhongAn and Tk.cn offer relatively comprehensive product suites across different P&C product types. For ZhongAn, health and shipping return policies contributed the most premium income in 2019. As for Tk.cn, health, auto and accident insurance made the largest share of premium income in 2019. Anxin mainly focuses on accident and health insurance. E An offers scenario-based policy types, and accident and liability insurance took over health to become the largest premium contributor for the company in 2019.

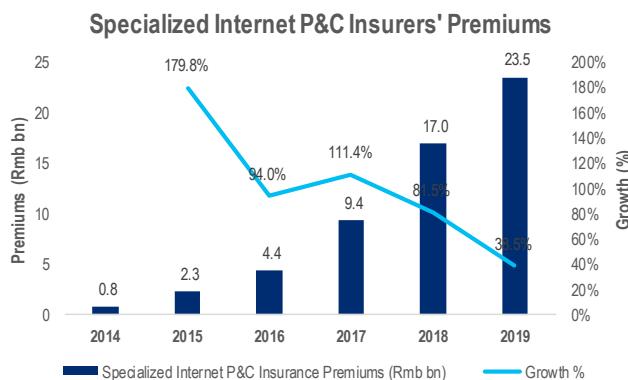
In terms of profitability, however, the specialized online insurers have been incurring underwriting losses as they are still in early stages of development, but most exhibited improvement in trends from 2016-2019. In 2019, Anxin registered the highest combined ratio of 155%, followed by Tk.cn at 122%, ZhongAn at 121% and E An at 117% on China GAAP basis. ZhongAn has even laid out its goals to achieve underwriting breakeven by 2020.

Figure 43. Background of the four specialized Internet insurers

Company	Products	Establishment	Major Shareholders
ZhongAn Online	Health, consumer finance, auto, lifestyle and travel products; technology export	Nov-13	Public H-Share Shareholders (32.0%); Ant Financial (13.54%), Tencent Holdings (10.21%), Ping An Insurance (10.21%)
Tk.cn Insurance	Internet P&C, auto, health, shipping, accident, credit and guarantee insurance	Nov-15	Taikang Insurance Group (99.5%)
Anxin P&C	Health, auto and customized products	Jan-16	CCX Group (33%)
E An P&C	Scenario-based products including healthcare, food, living, travel and lifestyle	Feb-16	Shenzhen InfoGem Technologies (Yinzhijie) (15%), Shenzhen Brightoil (15%)

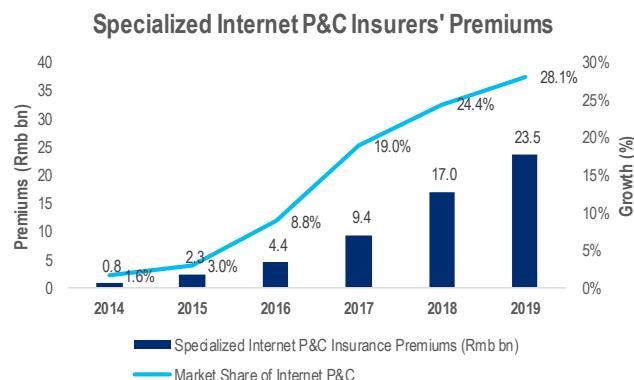
Source: Company Reports and Citi Research

Figure 44. Specialized online-only P&C insurers recorded high growth in 2015-2019



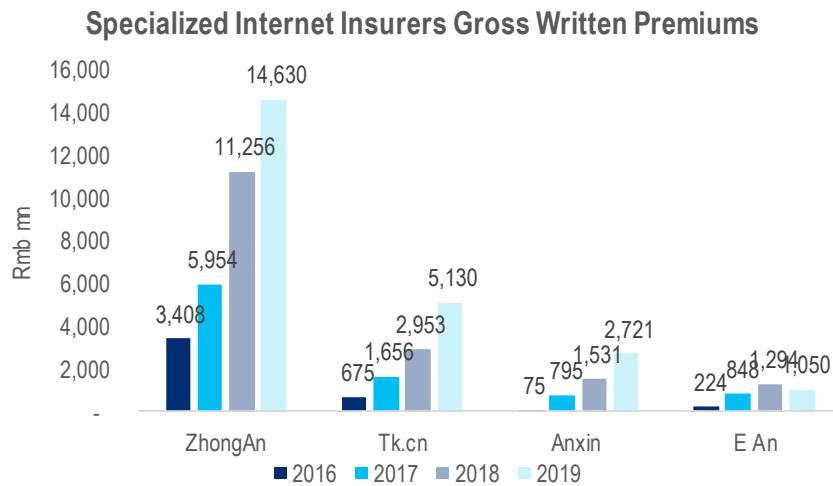
Source: Insurance Association of China

Figure 45. Specialized Internet insurers took up a large piece of the market at 28% in 2019



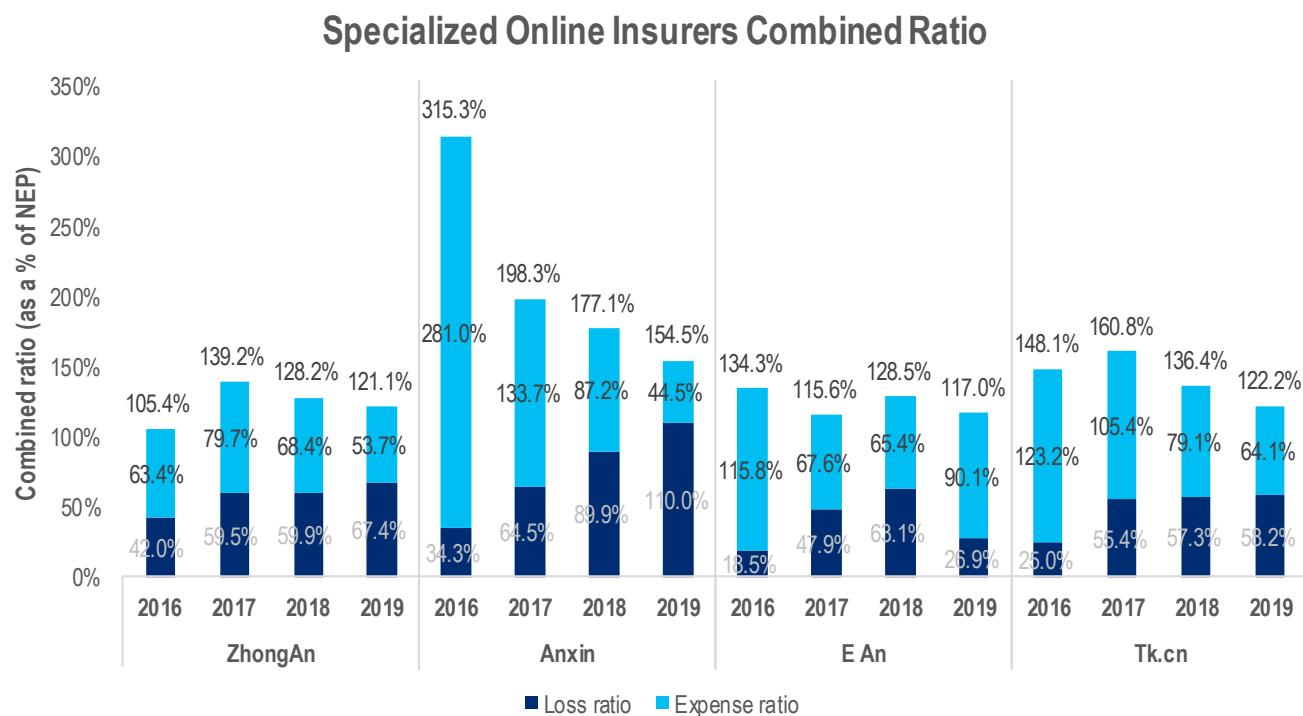
Source: Insurance Association of China

Figure 46. Most specialized Internet insurers continue to register premium growth – ZhongAn leads in online-only Internet premiums market share, however E An premiums retreated in 2019



Source: Company Reports

Figure 47. Specialized online insurers generally improved on underwriting but still incurred underwriting losses in 2016-19



Note: Estimated based on China GAAP financials

Source: Company Reports, Insurance Association of China, Citi Research Estimates

Case Study: ZhongAn Online

ZhongAn is an online-only insurance company, established in 2013 and listed in 2017. Cooperating with ecosystem partners, the company provides scenario-based Internet insurance products. The company operates its core insurance system off their proprietary cloud-based platform Wujieshan. On the other hand, ZhongAn also prides itself as an InsurTech player and exports technologies globally. For example, ZhongAn set up GrabInsure, a joint venture with Southeast Asian ride-hailing platform Grab, to provide policies to the Grab ecosystem. The company also exports systems modules to insurers like NTUC Income and Sompo.

Major operating costs for ZhongAn include costs of insurance underwriting (including claims payout, channel fees and other general and administrative expenses). ZhongAn invested 6%~8% of their premium income into technology research and development in 2016~2019.

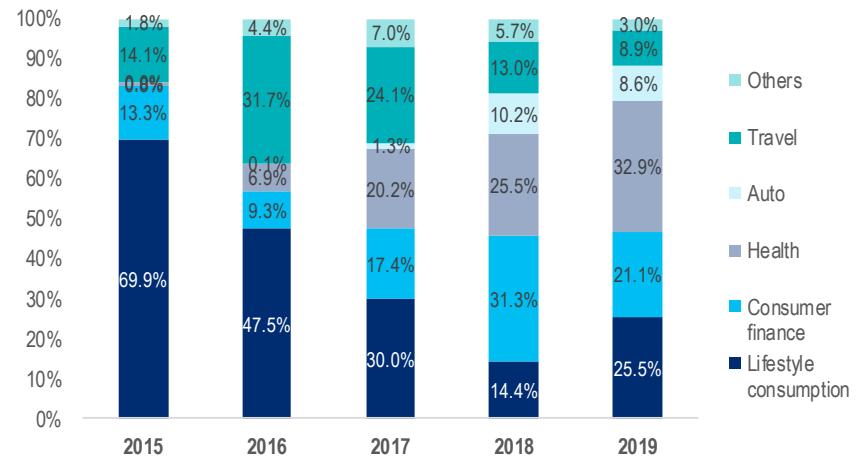
Figure 48. ZhongAn works with ecosystem partners for scenario-based insurance products

Ecosystem	Product	Partners	Nature of Partners
Health	Walk to Wellness Policy	Mi Band, Ledongli and Meizu	Wearables Manufacturers
	Personal Clinic Policy (尊享e生) / Hao Yi Bao (好醫保)	Alipay, iyunbao	Purchase Platforms
	Didi Automobile Owner Insurance Plan	Didi Chuxing	Scenario
Lifestyle Consumption	Shipping Return Policy	Taobao Marketplace, Tmall, Weidian, Xiaomi Pay	Scenario
	Overseas Customers Return Policy	AliExpress	Scenario
	Merchant Performance Bond Insurance (Zhong Le Bao / Can Ju Xian)	Taobao Marketplace, Tmall, Weidian, Xiaomi Pay	Scenario
Consumer Finance	Credit Guarantee Insurance	X Financial and Lexin	Scenario (Internet Finance Platforms)
	Credit Guarantee Insurance	China Telecom BestPay	Scenario (Telecom Operators)
	Credit Guarantee Insurance	Mogujie/Secoo	Scenario (e-commerce platforms)
Auto	Baobiao Auto Insurance	Ping An P&C	Coinurance
	Data Cube	Guazi, Maodou	Auto Retail Platforms
	Data Cube	Cango	
Travel	Flight Accident and Delay	Trip.com, Qunar.com, Tongcheng.com	Scenario

Source: Company Reports and Citi Research

Figure 49. ZhongAn provides scenario-based insurance products by ecosystems

ZhongAn GWP Breakdown by Ecosystems



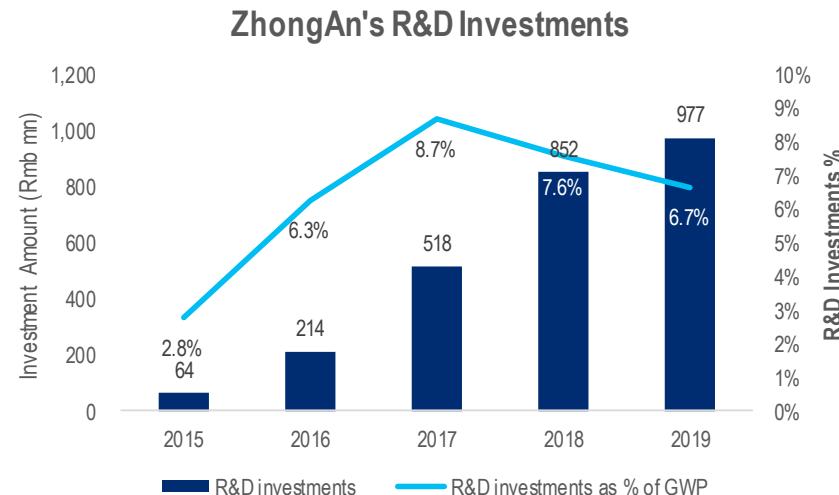
Source: Company Reports and Citi Research

Figure 50. ZhongAn exports InsurTech and sets out footprints globally



Source: Company Reports

Figure 51. ZhongAn's R&D investment takes up less than 10% of GWP



Source: Company Reports and Citi Research

Insurance intermediaries and third-party platforms – a strong industry disruptor

Independent third-party platforms and InsurTech companies take diverse roles in the industry's value chain with services ranging from providing operational tools and management systems, consultancy services to front-end distribution.

On the online distribution side, per Insurance Association of China, the number of insurance intermediaries conducting Internet Insurance businesses totaled 498 as of April 2020 in China.

To-C distribution platforms are the most commonly seen third-party platforms in the Internet insurance field in China. 1) There are many licensed insurance brokerage platforms for consumers to purchase insurance policies, such as Huize and Xiaoyusan. 2) There are also product-specific platforms like Cheche Insurance, specializing in auto insurance. 3) Other than the conventional types of insurance-specific distribution platforms, there are scenario-based platforms where customers could buy insurance policies as a supplementary product. For example, consumers could purchase travel insurance policies via online travel agencies such as Trip.com.

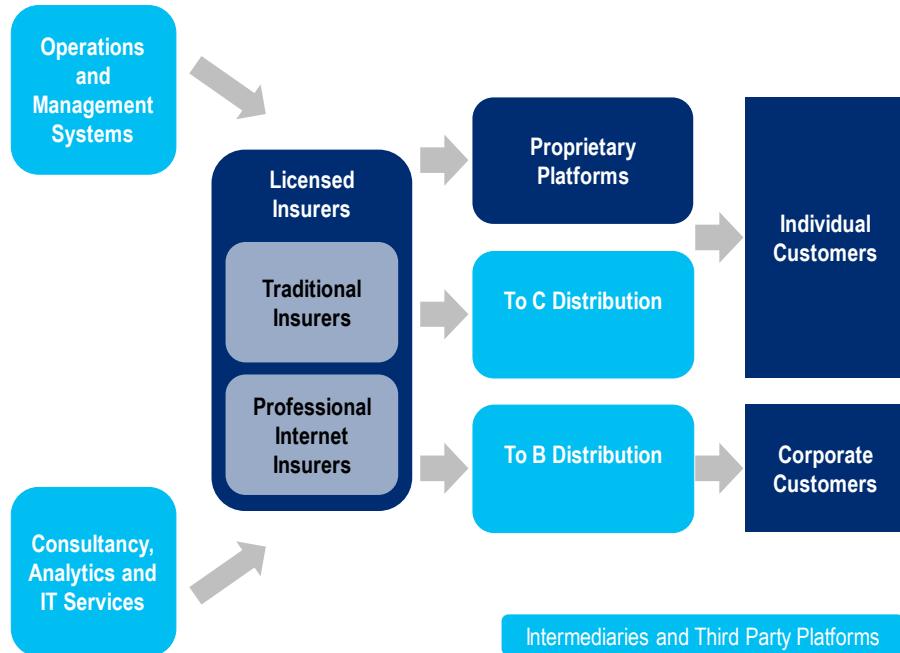
On top of insurance-focused players, Internet companies are leveraging their To-C advantage and look to take a share of the internet insurance market. Internet giants embed scenario-based insurance sales into their e-commerce and social media platforms, as well as invest in Internet-based insurance companies and platforms.

Among BATJ, Alibaba (via Ant Financial) and Tencent have the largest exposure to the insurance industry. They are both major shareholders of Internet-only insurer ZhongAn Online. Ant Financial is active in the mutual insurance field, being the largest shareholder of Trust Mutual Life, the first approved mutual life insurance company, and offering Xianghubao via Alipay. Tencent leverages on its own social media platforms and offers insurance products via WeSure, an Internet insurance agency.

To-B distribution platforms cater to corporate customers, including platforms offering group insurance solutions like Insgeek, as well as customization platforms like Wukongbao.

Other non-distribution related InsurTech entities provide systems, sales tools and consultancy services, which make use of data and industry experience to provide insights to support insurance companies' operations. For example, 17doubao.com is set up to provide intermediaries and insurers intelligent marketing tools. Software solutions providers, such as Hundsun, provide middle office and infrastructure system enhancement tools to insurance companies and InsurTech firms.

Figure 52. Independent platforms participate in various stages of the Internet insurance flow



Source: iResearch, Citi Research

Figure 53. Types of Internet insurance intermediaries and third-party platforms

Category	Services	Example
To B Distribution	Provide insurance solutions to corporates	Insgeek, Wukongbao, Insurance Box
To C Distribution	Bridging insurance companies, insurance agents with consumers (Usually licensed insurance brokerages and permitted to conduct Internet insurance sales)	Huize, Xiaoyusan, Xiangrikui, Cheche Insurance
Operational and Management Systems	Provide service platforms, distribution tools and other Internet insurance operations systems to insurance entities	17doubao.com, Panda Insurance, Klover InsurTech, Hundsun
Consultancy, Analytics and IT Services	Provide data-driven analytics and consultancy on insurance products and processes	Kaopubao, Baozhunnu

Source: Company Websites, Crunchbase, iResearch, Citi Research

Figure 54. BATJ's exposure to the insurance industry

Internet Giants Insurance Exposure		Type	Founder / Stake
Alibaba / Ant Financial	Trust Mutual Life Xianghubao (via Alipay)	Mutual Insurance Mutual Aid	Ant Financial (34.5%); Tianhong Asset Mgmt (24%) Ant Financial
	Cathay Insurance	P&C	Ant Financial (51%)
	Mayibao Insurance (originally Hangzhou Baojin)	Agency	Ant Financial
	Cooperation with CPIC-Allianz on health insurance	Health	AliHealth
	ZhongAn Online	P&C	Ant Financial (13.54%)
Tencent	WeSure	Agency	Tencent
	Tengnuo Insurance Broker	Brokerage	Shenzhen Tencent Computer Systems (95%)
	Hetai Life Insurance	Life	Tencent (15%)
	ZhongAn Online	P&C	Tencent (10.21%)
JD.com	Allianz Jingdong General Insurance	P&C	JD.com (30%)
Baidu	Heilongjiang Lianbaolongjiang Insurance Broker	Brokerage	Baidu Peng Huan Asset Mgmt

Source: Company Reports, Media Reports, Citi Research

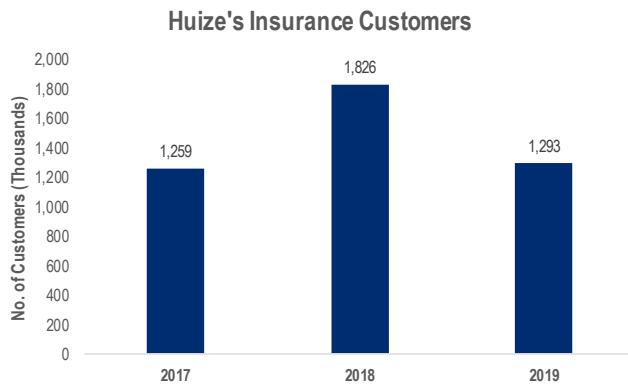
Case Study: Huize

Huize is an online insurance brokerage operating as an independent service platform. The company works with insurance partners who offer and underwrite insurance policies, providing insurance customers with both life and health insurance products (namely health, life and annuities) and P&C products (travel, individual and corporate products) via its online platform. Huize jointly develops insurance products with insurers, such as long-term health insurance Darwin No.1, taking advantage of their abundance of data.

Huize enters into cooperative agreements for terms of 1~3 years with insurer partners, so as to market their insurance policies via online channels. Huize charges commission from their insurer partners based on a percentage of premiums paid. For L&H health policies with periodic payments, Huize charges a higher percentage of first-year commission and takes a smaller share in subsequent years.

The ability to reach customers is the competitive advantage for insurance brokerages like Huize, hence the company employs both direct and indirect marketing channels. For direct marketing, Huize promotes products via financial and social media channels, publishes user education materials, places online and offline advertising, etc. The company also engages user traffic channels, such as social and financial influencers, who have built up a following for indirect marketing.

Figure 55. Huize assists more than 1mn insurance customers per year



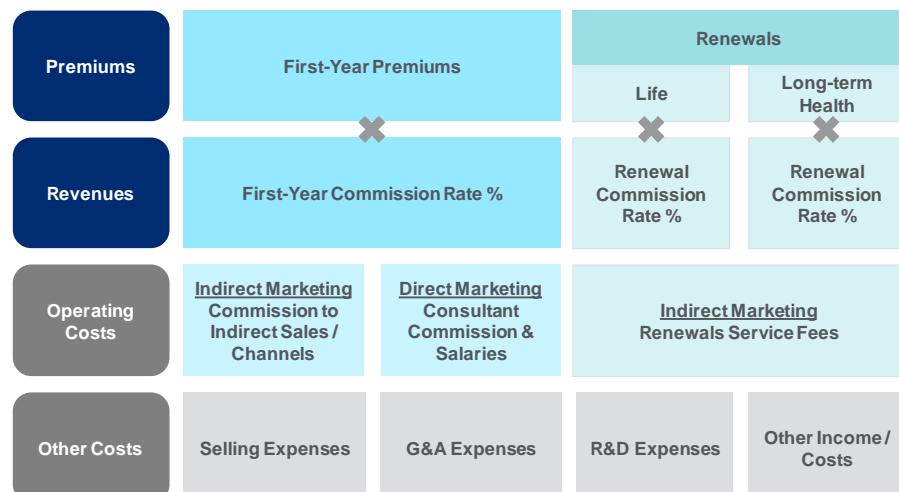
Source: Company Reports

Figure 56. Premiums facilitated by Huize reached Rmb2bn in 2019



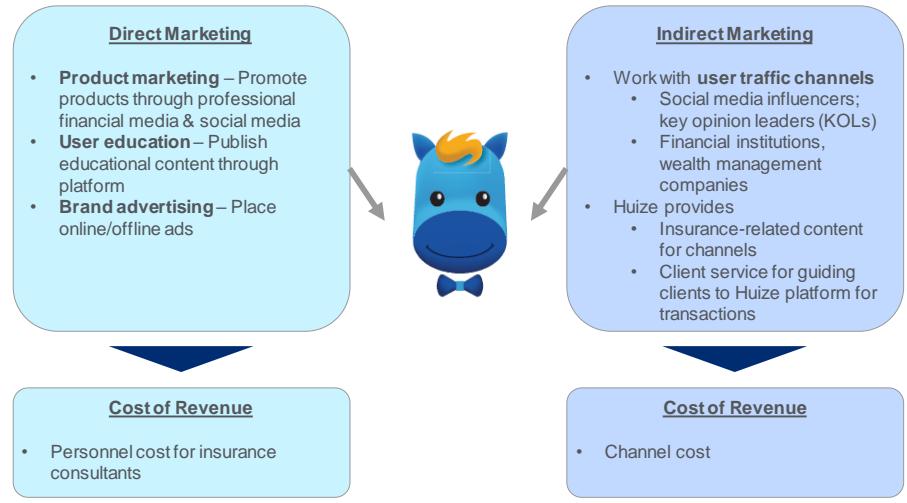
Source: Company Reports

Figure 57. Huize charges commission as a percentage of first year premiums and renewals



Source: Company Reports and Citi Research

Figure 58. Huize employs direct and indirect marketing to enhance customer reach



Source: Company Reports and Citi Research Estimates

Figure 59. Huize targets educated and tech savvy client base with its online model



Source: Company Reports and Citi Research

Case Study: WeSure

WeSure is an insurance agency platform under Tencent. The platform partners with renowned domestic insurance companies and offers insurance policies via WeChat, Tencent's mobile messaging application. WeSure leverages on the vast user base of WeChat and allows users to purchase insurance policies in just a click. The platform is convenient as users do not need to leave the WeChat ecosystem to finish their insurance purchases, from understanding the products on WeSure and paying premiums with WeChat Pay. As of YE2019, WeSure had accumulated 104mn users on the platform.

WeSure offers a limited amount of products that are divided in two categories :i) traditional products including life, health and travel insurance; ii) context/scenario-based products which are bundled with other services such as e-wallet. Products on the platform are kept simple at an affordable cost (for example, an indemnity-type hospital policy costs Rmb5 per month and up), with options of monthly payments. The WeSure platform is equipped with user education articles and AI-powered smart insurance consultancy for better client conversion.

Figure 60. WeSure offers insurance products and user education via mini programs, official accounts and Weibo



Source: WeSure

Figure 61. WeSure works with renowned domestic insurers to provide insurance policies



Source: WeSure

Figure 62. WeSure offers affordable insurance policies via WeChat ecosystem



Source: WeSure

Figure 63. WeSure platform is equipped with user education forums and articles



Source: WeSure

Mutual Aid Platforms – Young Generation's First-touch of Insurance

In 2015, CBIRC issued the Pilot Measures for the Regulation of Mutual Insurance Organizations. The measures detailed the regulatory framework over mutual insurers. Mutual insurance is defined as the business in which contracted members pay insurance premiums to pool a fund, which would pay claims per the insurance contract. Mutual insurance companies are owned entirely by the policyholders. Trust Mutual Life, the first approved mutual life insurance company in China, was established in 2017. Public Mutual and HeroMutual were established in 2017 as well. No mutual insurance companies were approved to be set up afterwards, although CBIRC announced recently to introduce a nationwide fishery mutual insurance organization. However, Trust Mutual Life took up less than 0.1% of the life market by premiums in 2018, similarly for Public Mutual and HeroMutual aggregatedly in the P&C market.

On the other hand, there has been a rise of mutual aid platforms in China in recent years. As opposed to mutual insurance companies, mutual aid platforms are not licensed as insurance companies. Similarly, users are able to join as members at affordable costs, then share other members' medical costs. In exchange, they are offered protection if they are diagnosed with the diseases set out in the contract.

These mutual aid platforms have been quick to gain popularity. Taking Ant Financial's Xianghubao as an example, the platform quickly gained traction and accumulated 105mn members in 1.5 years since introduction, thanks to the convenience of participation (Xianghubao is embedded into Alipay) and the absence of joining fees. Mutual aid platforms also tackle the issue of distrust between customers, insurance agents and companies via disintermediation. We believe the platforms have helped to raise the public's awareness towards health coverage. Ant Financial even predicts in its reports that mutual aid platforms would contribute to 3% of critical illness medical fees nationwide by 2025 (from 0.73% in 2019).

Figure 64. Comparison of Popular Online Mutual Aid Platforms in China

	Xianghubao	Qingsong Mutual Aid (of Qingsongchou)
Investors	Ant Financial	IDG Capital, DT Capital Partners, Tongdaoo Capital, Tencent Holdings
Establishment	2018	2014
Users	105.3mn (as of Mar 2020)	60mn (as of Oct 2018)
No. of Users with Claims Received	15,325 (2019)	1,306
Joining Fee (Rmb)	Free	10-90
Eligible Age	30 Days~59 Years	28 Days~65 Years
Business Model	Offered via Alipay Users join for free and share medical costs; guaranteed maximum fees shared to be Rmb188 in 2020	Users join with deposit to become a mutual aid member Members share medical fees when one of the members is diagnosed with illness
Coverage	100 Critical Illnesses	30 Critical Illnesses
Maximum Benefit (Rmb)	300,000 (100,000 for members of 40-59 years old)	100,000~1,330,000 (Varies across plans)

Source: Company Websites

Case Study: Xianghubao

Xianghubao is a mutual aid platform operated by Ant Financial. Xianghubao started by partnering with Trust Mutual Life as a mutual insurance program, however post some warnings from the regulators transformed into a mutual aid platform.

Users are able to access Xianghubao easily within their Alipay application, a popular online payment tool in China. Moreover, the admission criteria into the sharing pool attracts a large pool of users. Users under age 60 fulfilling assessment criteria via Sesame Credit are eligible to join the pool with nil joining fee. Users need only to share the costs along with 10% management fees. Xianghubao also guaranteed the maximum cost for each user would be Rmb188 in 2019. Users in the mutual aid pool could receive funds as much as Rmb300,000 if diagnosed with critical illnesses. The model proved to be popular among netizens and the platform had accumulated 105.3 million users by March 2020.

Moreover, Xianghubao discloses mutual aid statistics regularly within the application. Users are able to track the number of members in the pool, the number of users who have received benefits and the amount of cost sharing per person regularly.

Figure 65. Users could track the latest numbers of members, profiles of users who have claimed benefits and the amount of shared costs via the Xianghubao platform



Source: Alipay, Xianghubao

Regulations: Growth- Risk Balance

China Banking and Insurance Regulatory Commission (CBIRC), the insurance market regulator in China, governs the internet insurance sector via three key principals: (1) encourage healthy growth; (2) strengthen risk controls; and (3) protect customers. The regulator has been trying to strike a balance between growth and risk. In the last decade the regulator has been paying more attention to the development of Internet insurance, and introduced several measures to foster its development and has established a framework to ensure discipline. Some of salient features of internet insurance regulations include:

- Specifying eligible entities to conduct Internet insurance (e.g. insurance companies, brokerages and agencies) and establishing operations standards
- Introducing a category of specialized Internet insurance companies, which are only allowed to sell insurance policies online and forbidden from having offline presence
- Emphasizing risk controls of internet insurance businesses, such as forbidding insurance companies from working with illegitimate third-party platforms and internet finance platforms

Figure 66. Chinese regulators strive to promote Internet insurance, while ensuring prudent risk management via putting frameworks in place

Date	Regulator	Regulation	Significance
Apr-11	CBIRC	Internet Insurance Regulations (Consultation Draft)	Lays out the criteria and rules for insurers and insurance brokerages to operate Internet insurance businesses
Sep-11	CBIRC	Regulations on Internet Insurance Businesses of Insurance Agencies and Brokerages (Pilot)	Specifies the criteria and operations rules for insurance agencies and brokerages' Internet insurance businesses
May-12	CBIRC	Reminder on Internet Insurance Businesses Risk	Specifies that only insurers, insurance brokerages and insurance agencies are eligible to conduct Internet insurance businesses, including insurance product comparison and other intermediary services
Aug-13	CBIRC	Issues concerning the Business Operations Check of Specialized Internet Insurance Companies	Specifies conditions for operations approvals of specialized Internet insurance companies
Dec-13	CBIRC	Notice on Fostering the development of Life Insurers' Internet Insurance Business Standards	Specifies operational regions of insurance companies, sets out that internet insurance businesses are to be under tight scrutiny
Apr-14	CBIRC	Notice on Standardizing the Internet Insurance Operations of Life Insurance Companies	Lays out criteria for life insurance companies to operate Internet Insurance businesses (such as they should be operated under the head company) and the relevant risk regulations
Aug-14	State Council	Opinions on Accelerating Development of Insurance Service	Supports insurance companies to make use of internet, cloud computing, big data and mobile internet to foster the development of sales channel and services of insurance industry
Jul-15	PBOC	Opinions on Fostering the Healthy Development of Internet Finance	Supports insurers to set up innovative insurance platforms to conduct internet insurance businesses
Aug-15	CBIRC	Interim Measures for the Supervision of the Internet Insurance Business	Guidance on the development of internet insurance; lays out standards for internet insurance operations, criteria for third-party platforms and relax the geographical constraints for sales of several insurance types
Sep-15	CBIRC	Notice on Deepening the Reform of the Insurance Intermediary Market	Promotes individual agency mechanism and raises intermediary standards
Jan-16	CBIRC	Notice on Strengthening the Administration of the Guarantee Insurance Business on Internet Platforms	Lays out that insurers should be selective with internet platforms they cooperate with for guarantee insurance businesses and they should adhere to the solvency requirements, as well as the relevant management measures and information disclosures requirements
Aug-16	CBIRC	Outline of the Plan for Development of China's Insurance Industry during the "13th Five-Year Plan" Period	Expansion of Specialized Internet Insurance Companies Pilot Scheme
Oct-16	CBIRC	Implementation Plan for the Special Campaign on Internet Insurance Risks	Strengthens regulatory enforcement on 1) online high-cash-value policies; 2) Insurance organizations' online cross-segment business; 3) Illegitimate internet insurance operations
Apr-17	CBIRC	Notice on Further Strengthening the Risk Prevention and Control of the Insurance Industry	Forbids insurance companies from working with illegitimate third-party platforms for Internet Insurance businesses; requires insurers to raise risk identification and management standards
May-17	CBIRC	Notice on Fixing Weakness in Regulation and Developing a Rigorous, Effective Insurance Regulatory System	Refines regulatory and risk management mechanisms related to Internet Insurance
Sep-17	CBIRC	Warning about risks of purchasing insurance on internet platforms	Reminds consumers to beware of risks with purchasing insurance policies off Internet platforms, including ambiguous insurance liabilities, illegal fund-raising and misleading sales, etc.
Apr-19	CBIRC	Work Plan for Rectifying the Disorders in the Insurance Intermediary Market	1) Lays out responsibilities of insurers to manage intermediaries and channels; 2) Carry out scrutiny of the legitimacy and compliance of insurance intermediaries and 3) ensure legitimacy of the businesses of third-party platforms that insurers work with
Dec-19	CBIRC	Interim Measures for the Supervision of the Internet Insurance Business (Consultation Draft)	1) Outline regulations for the third-party internet platforms; 2) strengthens consumer protection mechanism; 3) raise quality and standards for internet insurance; 4) specifies definition of proprietary platforms and sets up registration mechanism for them
Jun-20	CBIRC	Notice on Regulating Retrospective Management of Internet Insurance Sales	1) Lays out that records should be maintained for Internet insurance sales, enabling trace back of Internet insurance sales; 2) Requires Internet insurance sales pages should only be displayed on insurance organizations' proprietary Internet platforms and need to be segregated from non-sales webpages; 3) Lays out requirements on Internet sales processes. The regulations to be effective from October 2020 onwards and non-compliant organizations are forbidden from carrying out Internet insurance businesses.

Source: CBIRC, State Council, Media Reports, Citi Research

Revised Internet Insurance Regulations

According to media reports, CBIRC has started consulting with the industry on an updated version of the *Interim Measures for the Supervision of the Internet Insurance Business* in Dec 2019. Under the revised version, the regulator further promotes Internet insurance sales by permitting more insurance products to be sold cross-regionally online. On the other hand, more stringent requirements are promulgated for companies that operate Internet insurance. Third-party Internet platforms without relevant insurance qualifications are strictly forbidden from conducting policy sales.

According to media news, the regulations are said to have expanded from 30 clauses to 108 clauses in the revised version, further detailing regulations with the

following aspects: i) establishing the definition of Internet insurance business; ii) laying out that only licensed insurance companies and intermediaries are eligible to carry out Internet insurance business; iii) expanding the permissible regions for Internet insurance sales; iv) stipulating operations requirements for proprietary platforms and third-party platforms; v) strengthening consumer protection; and vi) raising internet insurance quality and preventing misleading sales.

Figure 67. Major amendments to the Interim Measures for the Supervision of the Internet Insurance Business Consultation Draft (Dec 2019)

Major Amendments to the Interim Measures for the Supervision of the Internet Insurance Business (Consultation Draft)

1) Definition of Internet Insurance

Businesses involving insurance organizations selling insurance products via Internet and self-service terminals and devices
Insurance organizations and staff interacting with clients online and offline and providing internet insurance purchase links

2) Eligibility of Insurance Organizations for Conducting Internet Insurance Business

Only licensed insurance organizations (insurers and insurance intermediaries) are eligible to sell Internet insurance products
Specialized Internet insurance companies forbidden from selling offline insurance products

3) Permissible Regions for Internet Insurance Sales

Insurers may extend sales to regions where they have yet to set up branches for specified products:
1) Accident, Illnesses, Medical, Traditional Life;
2) Traditional, Universal and Investment-linked Retirement Annuities;
3) Household Property, Liability, Credit and Guarantee for Individuals;
4) P&C products which could be sold, underwritten and settled entirely via Internet
5) Other specified types by CBIRC

4) Regulations of Proprietary Platforms

Defined as Internet insurance operations platforms established by insurance entities
Proprietary platforms should be classified as Grade 3 under the Cyber Security Classification

5) Regulations for Third-Party Internet Platforms

Categorize third-party online platforms as marketing, technical support and customer service types
Regulate marketing platforms and forbid staff from engaging in selling of insurance products
Business scope limited to providing product information and demonstration, as well as providing links to insurance organizations' proprietary platforms
Forbidden from conducting policy sales, insurance consulting, premium calculation, product comparison, policy design and premium collection, etc.
Set out regulations by category

6) Strengthens Consumer Protection

Strengthens protection of customer data protection
Sets up a retrievable mechanism for tracking internet insurance sales and services, so as to tackle potential conflicts
Protect internet insurance consumers' right to know and right to choose; detailed guidance set out to regulate actions such as default opt-ins and bundled sales, so as to reduce gray areas/disputes

7) Raise quality and standards management for internet insurance

Requires all promotion materials published by insurance employees are to be produced by insurance companies
Requires insurance companies to establish a system to admit, regulate and train Internet insurance staff
Sets out general requirements on service management, such as policy administration, surrenders and claims settlement, etc.
Requires that internet insurers to set up a centralized customer interface on their proprietary platforms, so as to provide them administration, surrender, claims settlement, and complaints handling services
Requires that insurers complement online services with offline services, as well as provide customers with necessary manual aids
Encourages continuous strengthening and standardization of after-sales services, such as laying out operations flow and customers' rights and obligations, as well as required documents and guaranteed turnaround time.
Sets out specific requirements for insurance intermediaries to take on entrusted business with consumers, and requires them to sign entrustment contracts

8) Registration and Record Keeping for Proprietary Internet Platforms

Specifies definition of proprietary platforms, as well as the required documents for application of the licenses and operations approvals

Source: Media Reports, Citi Research

Companies

Company Focus

Huize Holding Ltd (HUIZ)

Initiate at Buy/1H; Forerunner on a Promising But Rocky Road

■ Initiation of Coverage

Buy/High Risk

Price (02 Jul 20 16:00)	US\$7.54
Target price	US\$10.60
Market Cap	US\$392M
Expected share price return	40.6%
Expected dividend yield	0.0%
Expected total return	40.6%

■ **Early mover in online insurance brokerage focusing on LT health products**

– Huize is a forerunner and market leader in the online distribution of long-term health products with a 24% market share among independent insurance brokers, though the business is still at the early stage. Cooperating with Internet key opinion leaders (KOLs), Huize facilitates its young, tech savvy and highly-educated customers to select suitable LT health policies. It also participates in insurers' product design, underwriting and claims handling processes. We initiate on Huize at Buy/1H with a TP of US\$10.6 and like its asset-light model, long-term products' recurring income and future strategic opportunities.

■ **Asset-light model to benefit from insurers' price competition** – While interest rate drop and product mispricing are the two major investor concerns hindering a re-rating of the insurance sector, Huize as an insurance broker earns revenues via commission fees without bearing any investment or underwriting risks.

Meanwhile, as non-listed life insurers continue to squeeze margins to boost scale, Huize also benefits from LT health products becoming more affordable.

■ **Leveraging KOL economy to promote LT health products** – While LT health products are globally seen as face-to-face distributed only, Huize innovatively takes advantage of the prevalent 'KOL economy' working with financial & social media influencers to maximize customer reach and insurance education and then collect recurring commissions. The company itself also directly conducts product marketing and brand advertising to attract customers in a cost-effective way.

■ **Tailor-made products empowered by reverse engineering capabilities** – Huize's data-driven customer profiling and intelligent underwriting system enable the company to accumulate purchasing behavior data and get engaged in product design together with insurers. In 2019, tailor-made products accounted for 37% of the total L&H premiums it facilitated.

■ **Potential for strategic partnership as a quality name** – As a quality leader in the online LT L&H insurance brokerage market, we see great potential for Huize to form strategic partnerships with Internet giants and foreign insurers entering China, or to vertically integrate with top KOLs, as PE investors gradually unload their stakes.

■ **Risks** – 1) Stringent regulations for insurance intermediaries might constrain Huize's future development; 2) Long-term protection products are most impacted under COVID-19, placing Huize at a disadvantage; 3) Changes in significant shareholders could trigger share price volatility.

Early mover in online insurance brokerage focusing on LT health products

With the founding team starting out as early as in 2006, Huize was one of the earliest and largest independent online insurance product and service platforms in China.

Cooperating with Internet key opinion leaders (KOLs), Huize facilitates its young, tech savvy and highly-educated customers to select suitable LT health policies. Riding the wave of rising demand from the young generation for insurance protection, Huize shifted its business focus to long-term life (especially critical illness) health insurance products from its traditional P&C business. Huize notes that a substantial portion of the long-term life and health products offered on its platform have payment terms of 20 years or above. According to an Oliver Wyman report, Huize is the largest online independent insurance platform in the long-term L&H space with a 24% market share in 2018. There is further growth potential in this segment as Oliver Wyman expects the total addressable market of long-term L&H to grow by 151% CAGR from 2018-2023E. From October 2019, Huize has also been nimbly scaling up sales of annuity insurance products to cater to clients' demands for annuity products and to increase clients' life-time value.

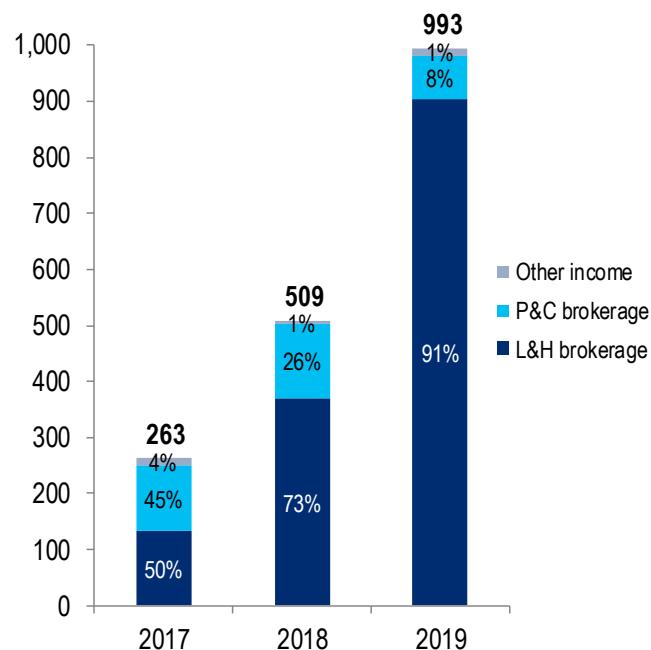
In 2019, long-term health was 71% of Huize's GWP facilitated in 2019. This is also proved beneficial to Huize's top-line, as L&H products with regular payment generate higher commission income in the first year (L&H:19%~110% of FYP vs. P&C: only 10%~98% of FYP) and a recurring revenue stream in the years ahead. Driven by the growth in long-term L&H premiums, Huize registered rapid growth in operating revenue in 2017-2019. Huize's operating revenue more than tripled to Rmb993mn in 2017-2019, of which L&H brokerage contributed 91% in 2019 (contrasting with c.50% in 2017).

Huize has accumulated a large pool of high-quality clients over the years. As of Dec 2019, the company had cumulatively served 6.3 million insurance clients. Among them, life and health insurance clients are relatively young with an average age of 32 in 2019. Moreover, the company's marketing targets highly-educated, tech savvy and financially capable individuals.

Figure 68. Life and health brokerage income contributed majority (91%) of Huize's operating revenue by 2019

Operating Revenue Mix

Rmb mn

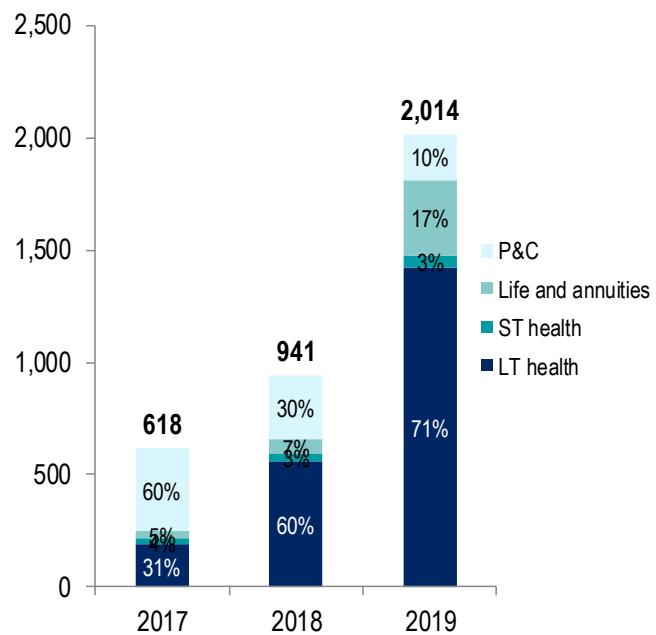


Source: Company Reports and Citi Research

Figure 69. 71% of Huize's GWP facilitated was sourced from long-term health products in 2019, followed by 17% from life and annuities

Huize's Product Mix by GWP Facilitated

Rmb mn



Source: Company Reports and Citi Research

Figure 70. L&H products with regular payment generally generate higher commission income and recurring revenue for Huize (as of Feb 2020)

Type of Products	Year 1	Year 2	Year 3	Year 4	Year 5
Life and health insurance					
Regular payment	19%-110%	2%-30%	1%-20%	1%-10%	1%-8.5%
Single payment	7%-54%	-	-	-	-
Property & casualty insurance	10%-98%	-	-	-	-

Note: Commission fees are expressed as a % of First Year Premiums

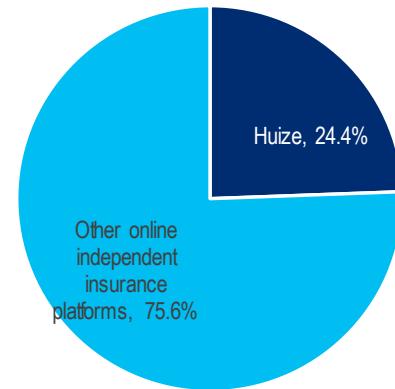
Source: Company Reports and Citi Research

Figure 71. Huize offers mainly critical illness, accident and health insurance from mid-sized to small insurers

Insurance Type	No. of Products	Major Suppliers	Product Examples
Accident	25	CPIC P&C, Ping An P&C, Sinosafe Insurance, Huatai P&C, Asia-Pacific P&C, Allianz Jingdong, Hongkang Life, Tk.cn, E An P&C, Shanghai Life, Fosun United Health, Guoren P&C, AiXin Life	安康保综合意外伤害保险 by Hongkang Life
Health and Medical	23	Taiping Life, Ping An Health, CPIC P&C, Sinosafe Insurance, Allianz Jingdong, AXA-Tianping, Tk.cn, Anxin P&C, E An P&C, Public Mutual, ZhongAn Online, Hengqin Life, Fosun United Health	京彩一生百万医疗险 by Allianz Jingdong
Critical Illness	40	Oldmutual-Guodian Life, Sun Life Everbright Life, Ping An Pension, Taiping Life, Kunlun Health, Starr P&C, Sunshine Life, Sinatay Life, Hongkang Life, Hengqin Life, Aeon Life, Fosun United Health, China Three Gorges Life, HaiBao Life, Ruihua Health, Guo Fu Life	守卫者3号重大疾病保险成人版 by Kunlun Health
Life	17	Citic-Prudential Life, Oldmutual-Guodian Life, Aegon THTF Life, Sunshien Life, Hongkang Life, Huagui Life, China Three Gorges Life, Guo Fu Life, AiXin Life	定海柱1号定期寿险 by Guo Fu Life
Annuity	8	Funde Sino Life, Taiping Life, ICBC-AXA, Hai Bao Life, Sino-Korea Life, Guo Fu Life	太平财富智赢年金保险+荣耀金账户终身寿险（万能型） by Taiping Life

Source: Company Reports and Citi Research

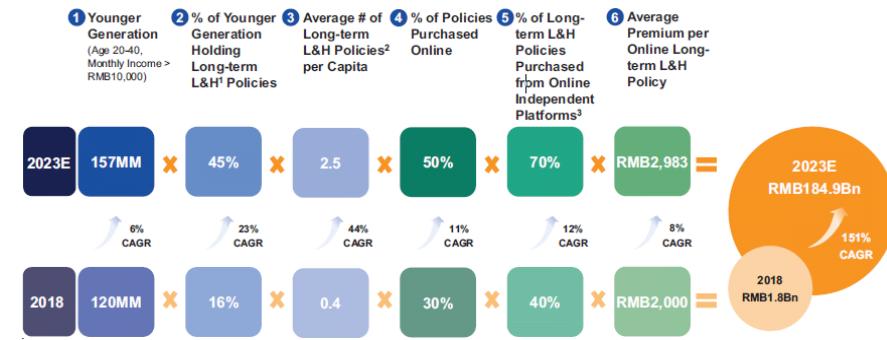
Figure 72. Huize is the largest player in long-term life and health insurance among online independent insurance platforms (2018)



Note: Calculated as Huize's long-term health GWP facilitated as a % of China's long-term life and health insurance sold through online independent insurance platforms (Rmb2.3bn) in 2018

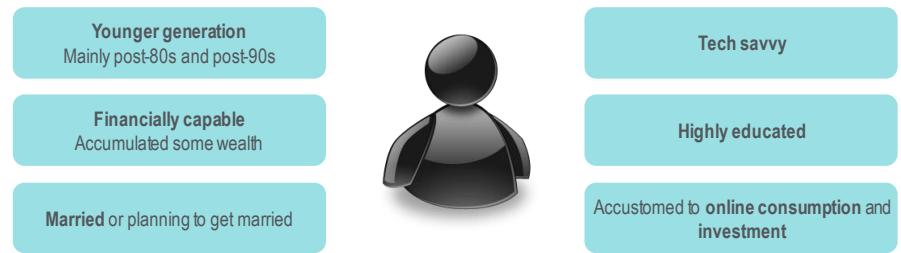
Source: Company Reports, Oliver Wyman

Figure 73. Oliver Wyman expects 151% CAGR in long-term life and health market in 2018-2033E



Source: Oliver Wyman, Company Reports

Figure 74. Huize targets quality clientele comprising young and highly-educated individuals



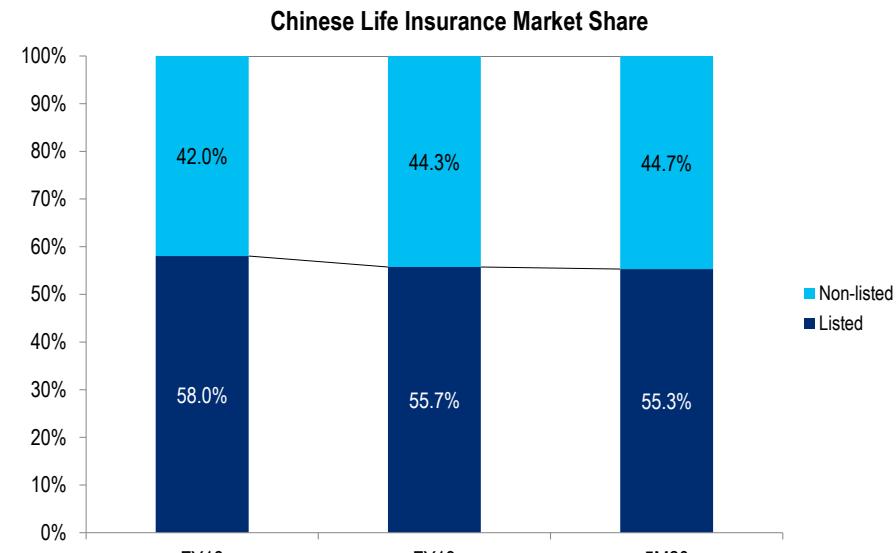
Source: Company Reports and Citi Research Estimates

Asset-light model to benefit from insurers' price competition

Interest rate drop and product mispricing are the two major investor concerns hindering a re-rating of the insurance sector. Huize, as an insurance broker, earns revenues via commission fees without bearing any investment or underwriting risks. Being a licensed insurance intermediary, Huize works with insurance partners which offer and underwrite insurance policies to provide customers with both life and health insurance products (namely health, life and annuities) and P&C products (travel, individual and corporate products) via its online platform. In other words, Huize operates an asset-light distribution model and does not take on underwriting risks.

Meanwhile, as non-listed life insurers fight for market share and continue to squeeze margins to boost scale, long-term health products have become more affordable and are attracting a larger client base. Huize, as an insurance distributor, is immune to primary insurers' price war and might even benefit from the expanded client pool and increased sales.

Figure 75. Non-listed life insurers have sacrificed margin to take bigger market shares, which is expected to lead to more affordable products and consequently a bigger client base for Huize



Source: WIND, Citi Research

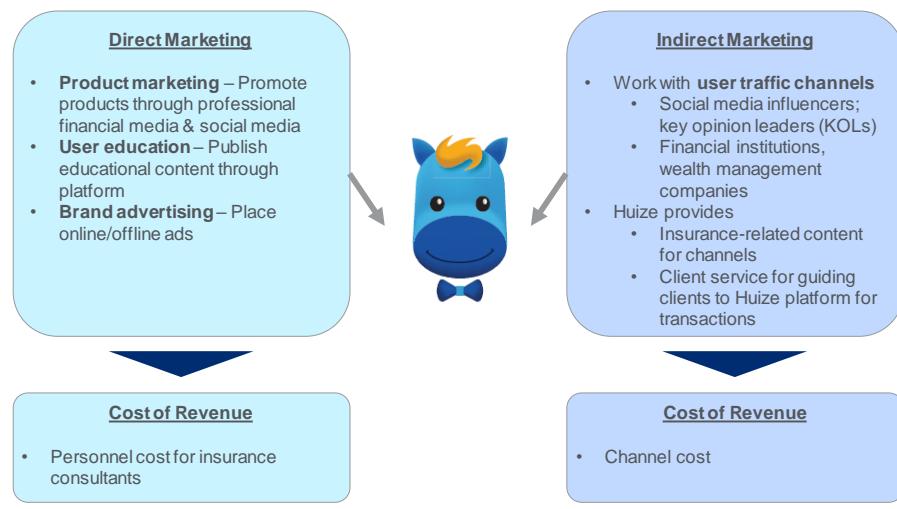
Leveraging KOL economy to promote LT health products

While long-term health products are seen to be mainly distributed via face-to-face channels, Huize innovatively takes advantage of the prevalent 'KOL economy' working with financial & social media influencers to maximize customer reach and insurance education and then collects recurring life insurance commissions usually earned by other offline channels. The company itself also directly conducts product marketing and brand advertising to attract customers in a cost-effective way.

For **direct marketing**, Huize makes use of its own online platforms and capabilities to conduct product marketing, user education and brand advertising. Huize prepares promotion materials and promotes insurance products via professional financial media and popular social media platforms. The company also employs and trains insurance consultants to add personal touches and aid clients' understanding of products. Simultaneously, Huize publishes user education materials to guide clients to make informed and rational purchase decisions, resulting in excellent product persistency ratios. Huize also places online and offline scenario-based advertising to increase its brand awareness as an insurance platform.

For **indirect marketing**, Huize works with user traffic channels, including financial institutions and social media influencers (more commonly known as 'key opinion leaders (KOLs)') to provide insurance education and direct interested customers to Huize's insurance platform. This innovative way of distribution enables Huize to expand rapidly. Indirect marketing contributed 76% of Huize's brokerage income in 2018. Huize is in charge of insurance-related content and leverages on the vast follower base of these user traffic channels. In return, commission fees are paid to these partners based on the amount of successful sales directed to Huize's platform, which ranged between 55%~57% of Huize's revenue in 2017-2019.

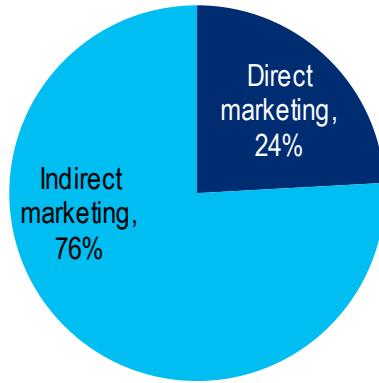
Figure 76. Huize utilizes both direct and indirect marketing channels to attract customers



Source: Company Reports and Citi Research Estimates

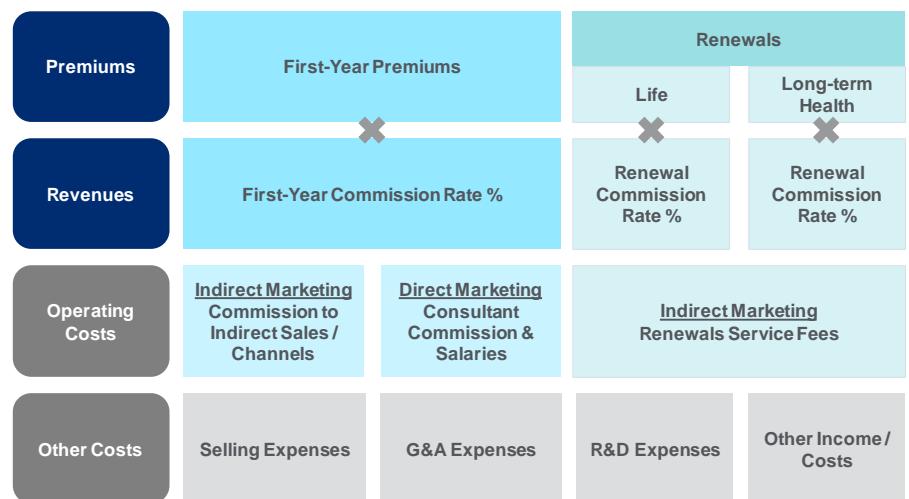
Figure 77. Indirect marketing contributed 76% of brokerage income in 2018

Brokerage Income Channel Mix 2018



Source: Company Reports and Citi Research

Figure 78. Channel fees and consultant salaries are Huize's major client acquisition costs



Source: Company Reports and Citi Research

Figure 79. Operating costs (excluding share-based compensation) have been improving as a % of revenue; channel costs ranged between 55%~57% of revenue in 2017-2019

	2017		2018		2019	
	RMB '000	% of Rev	RMB' 000	% of Rev	RMB '000	% of Rev
Operating costs and expenses:						
Cost of revenue	164,750	62.6%	316,397	62.2%	629,531	63.4%
Of which: Channel costs	144,960	55.0%	285,728	56.2%	561,600	56.5%
Other cost	1,919	0.7%	1,905	0.4%	1,837	0.2%
Total operating costs	166,669	63.3%	318,302	62.6%	631,368	63.6%
Selling expenses	104,980	39.9%	94,613	18.6%	164,665	16.6%
General and administrative expenses	41,877	15.9%	46,177	9.1%	161,816	16.3%
Research and development expenses	50,107	19.0%	24,944	4.9%	33,831	3.4%
Total operating costs and expenses	363,633	138.1%	484,036	95.1%	991,680	99.8%
<i>Excluding share-based compensation</i>	362,822	137.8%	483,069	94.9%	896,722	90.3%

Source: Company Reports and Citi Research

Tailor made products empowered by reverse engineering capabilities

Huize's technology infrastructure and data analytics enable effective client profiling and product recommendations. Additionally, clients can access one-stop closed-loop insurance services without leaving Huize's platform. On top of product reviews, Huize also employs and trains insurance consultants to aid clients' understanding of products. The company has also integrated a proprietary intelligent underwriting system to accelerate underwriting process and enhance customer experience.

Huize positions itself a dual-way business. On top of serving insurance clients, the company also strives to direct flows and increase sales for insurance companies. Leveraging on its long history and database, Huize reaches insurance clients effectively with customer profiling and detailed segmentation. The embedded intelligent underwriting system also reflects insurance companies' risk management requirements and raises their underwriting efficiencies.

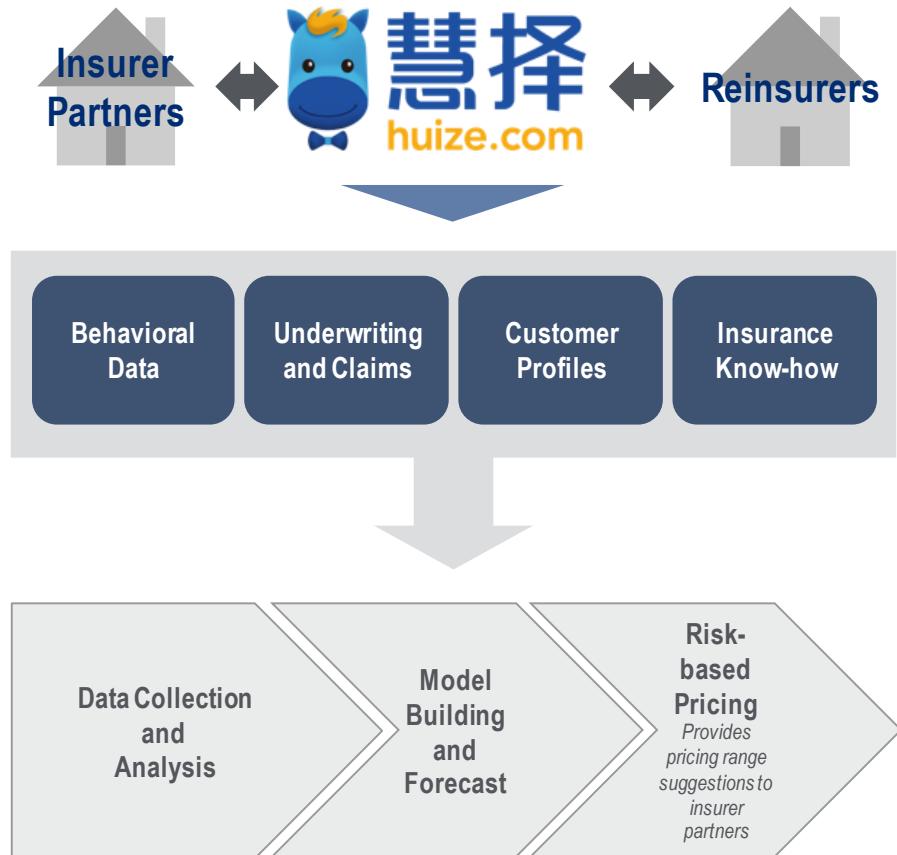
Huize boasts robust insurance and actuarial capabilities along with its massive pools of client behavioral data, which allows the company to develop tailor-made insurance products with insurance partners. Utilizing the behavioral data, underwriting data, customer profiles and the company's insurance know-how, Huize develops risk-based pricing models and provides pricing range suggestions to insurer partners. Premiums achieved from tailor-made products accounted for 36.5% of Huize's total L&H premiums in 2019. One of the most popular tailor-made products was Darwin No.1, a long-term health insurance product which was co-developed by Huize and Fosun United Health Insurance.

Figure 80. Huize positions itself as a dual-way online insurance platform serving both insurance companies and customers



Source: Company Reports

Figure 81. Huize boasts insurance expertise for providing tailor-made products pricing suggestions to partners



Source: Company Reports and Citi Research Estimates

Figure 82. Huize co-develops tailor-made products with insurance partners that prove popular

Darwin One: Flagship Tailor-made Product

Nature	Long-term health insurance product
Underwriter	Fosun United Health Insurance
Benefits	Payment to beneficiary if policyholder's life terminates
	Additional claim payment for minor health problems before critical illness covered
	Offers comprehensive protection with scope of diseases and claim payment with competitive pricing

Other Popular Co-designed Products

- Hui Xin An (underwritten by Hexie Health)
- Defender No. 2 (underwritten by Fosun United Health)

Source: Company Reports and Citi Research

Potential for strategic partnership as a quality name

As a pioneer in a niche market, Huize has great potential to build quality partnerships. Differing from many other Internet insurance platforms, Huize is one of the few to focus on long-term life and health insurance and has successfully facilitated smaller insurers to expand customer reach.

As pre-IPO financial investors gradually offload their stakes in the future, we see great potential for Huize to :1) introduce strategic investors including Internet giants eyeing its high quality business, 2) form strategic partnerships with foreign insurers entering China, or 3) conduct vertical integration with top KOLs it currently works with.

Given the opening up of life insurance companies to foreign ownership, we believe there will be more new and well-capitalized entrants to market who have strong desires to ramp up their presence in a short time.

Moreover, we believe Huize's abundant cash on the balance sheet equips the company to take advantage of potential M&A opportunities. As of 1Q20, Huize held a cash balance of Rmb500mn on hand which will enable the company to carry out vertical integration such as investing in its distribution partners to strengthen their relationships.

SWOT Analysis

Figure 83. SWOT Analysis for Huize Holdings

SWOT Analysis	
Strengths	Weaknesses
Established track record of 13 years' operation in the industry and recognized 'Huize' brand with both insurance partners and policyholders.	Still early days of expansion; lack of long track record in selling life and health insurance.
Experienced management team.	Lack of long track record in maintaining stable and decent profitability.
Asset-light business; no underwriting nor investment risks.	Lack of non-commission revenue drivers.
Strong premium, revenue, and earnings growth.	Still relatively small scale vs. the whole life and health insurance industry.
Nimble and innovative in product distribution and manufacturing.	Heavily reliant on external marketing resources.
Dual-engine online model that 1) caters to both insurer partners and insurance customers and 2) could be very cost effective when scaling up business size.	Heavily reliant on lower-margin critical illness products offered by small- and middle-sized insurance companies.
Engagement of social media influencers for enhancing client traffic and audience's insurance awareness.	
Customer browsing behavioral data tracked and digitalized; convenient for future data analytics.	
Better understanding of customers' needs by participating in each step of the insurance service chain such as underwriting and claim settlement.	
Boasts R&D capacity to offer tailor-made insurance products, e.g. Darwin No.1 with Rmb51.5mn of premiums within first five months of launch.	
Ability to obtain traffic with own user traffic platforms.	
Opportunities	Threats and Risks
Government's promotion of insurance industry, particularly health insurance.	Any macro hard landing and consequent sharp drop in insurance demand.
Low life insurance penetration in China vs. developed countries; China is likely approaching the inflection point for insurance coverage.	Highly competitive space with internet giants and listed/large traditional insurers entering online distribution channels.
Independent insurance sales channel has also gained traction.	Tightening regulations on online insurance sales and comparison might pose regulatory risks.
Online insurance a fast-growing market – online insurance CAGR from 2013-2018 is 45%; online insurance penetration expected to grow from 5% to 13% in 2023E.	Direct-marketing channel building is becoming more and more expensive.
Room to further improve customer acquisition efficiency in future.	Lack of experience in selling term and whole life products.
Room to diversify insurance products, such as focusing more on tailor-made products and life products.	
Further raise profitability via channel shift towards direct marketing and gaining more bargaining power against insurance partners and KOLs.	
Room to explore new insurance-related income source, such as product advisory and policy loan commission.	

Source: Company Reports and Citi Research Estimates

Valuation

Our target price for Huize of US\$10.6 is based on a DCF valuation. We project free cash flows up to 2029E followed by a terminal growth rate of 5.0%, discounted by a WACC of 13.3%. We derive Huize's WACC using a 3.0% risk-free rate, a market risk premium of 6.0% and a beta of 1.75. Our target price for Huize implies a 2020E adjusted P/E ratio of 25x.

Figure 84. Summary financials for Huize Holding (Rmb '000)

	2017	2018	2019	2020E	2021E	2022E
Profit and loss						
Brokerage income	251,556	503,547	982,124	1,330,527	1,624,699	1,973,797
Other Income	11,776	5,281	11,195	7,277	7,641	8,023
Total operating revenue	263,332	508,828	993,319	1,337,804	1,632,339	1,981,820
Cost of revenue	164,750	316,397	629,531	845,489	1,012,018	1,211,111
Other cost	1,919	1,905	1,837	3,215	3,375	3,544
Total operating cost	166,669	318,302	631,368	848,703	1,015,394	1,214,656
Gross profit	96,663	190,526	361,951	489,100	616,946	767,164
Selling expenses	104,980	94,613	164,665	228,454	269,420	327,185
G&A expenses	41,877	46,177	161,816	170,899	177,068	189,921
Research and development expenses	50,107	24,944	33,831	44,148	53,867	63,418
Total non-operating cost	196,964	165,734	360,312	443,501	500,355	580,525
Operating (loss)/ profit	(100,301)	24,792	1,639	45,599	116,590	186,639
Other income/ (expenses)	2,673	(22,896)	13,566	3,169	3,169	-
Profit or loss before tax	(97,628)	1,896	15,205	48,768	119,759	186,639
Tax	406	278	57	4,877	29,940	46,660
Net (loss)/profit attributable to Huize Holding Limited	(97,173)	3,152	14,902	44,612	90,539	140,700
Net (loss)/profit attributable to common shareholders	(75,713)	(27,524)	(25,383)	44,612	90,539	140,700
Balance sheet						
Cash and cash equivalents	12,261	6,640	88,141	128,404	197,642	302,700
Accounts receivable, net of allowance for doubtful accounts	70,690	108,434	180,393	244,671	298,766	362,962
Insurance premium receivables	3,010	9,143	2,329	2,014	3,245	4,626
Property, plant and equipment, net	8,373	6,354	8,006	9,607	11,529	13,834
Other assets	71,443	203,513	229,936	563,158	751,891	1,014,624
Total assets	165,777	334,084	508,805	947,854	1,263,073	1,698,746
Insurance premium payables	101,694	114,447	125,587	178,489	208,158	233,974
Other liabilities	82,225	183,102	237,244	238,411	433,418	1,042,862
Total liabilities	183,919	297,549	362,831	416,899	641,576	1,276,836
Total mezzanine equity	367,228	421,773	454,627	-	-	-
Total shareholders' equity/(deficits) attributable to Huize Holding Limited shareholders	(386,104)	(385,780)	(308,653)	530,955	621,497	421,910
Total shareholders' equity/(deficits)	(385,370)	(385,238)	(308,653)	530,955	621,497	421,910
Key Ratios						
ROA		-11.0%	-6.0%	6.1%	8.2%	9.5%
ROE					15.7%	27.0%
Net Profit Margin		-5.4%	-2.6%	3.3%	5.5%	7.1%
Asset Turnover		2.04	2.36	1.84	1.48	1.34
Financial Leverage		(0.65)	(1.21)	6.55	1.92	2.84
Client acquisition cost efficiency						
Direct marketing	48.2%	82.2%	81.6%	82.0%	82.0%	82.0%
Indirect marketing	20.2%	25.2%	23.6%	25.0%	25.9%	26.3%
Overall	28.0%	39.0%	39.1%	40.4%	41.8%	43.0%
Operation efficiency						
Operating cost to income ratio	63.3%	62.6%	63.6%	63.4%	62.2%	61.3%
Gross margin	36.7%	37.4%	36.4%	36.6%	37.8%	38.7%
Non-operating cost to income ratio	74.8%	32.6%	36.3%	33.2%	30.7%	29.3%
Operating profit margin	-38.1%	4.9%	0.2%	3.4%	7.1%	9.4%

Source: Company Reports and Citi Research Estimates

Bull/Bear: Huize Holding Ltd (HUIZ.O)

Bull/Bear: Huize Holding Ltd (HUIZ)

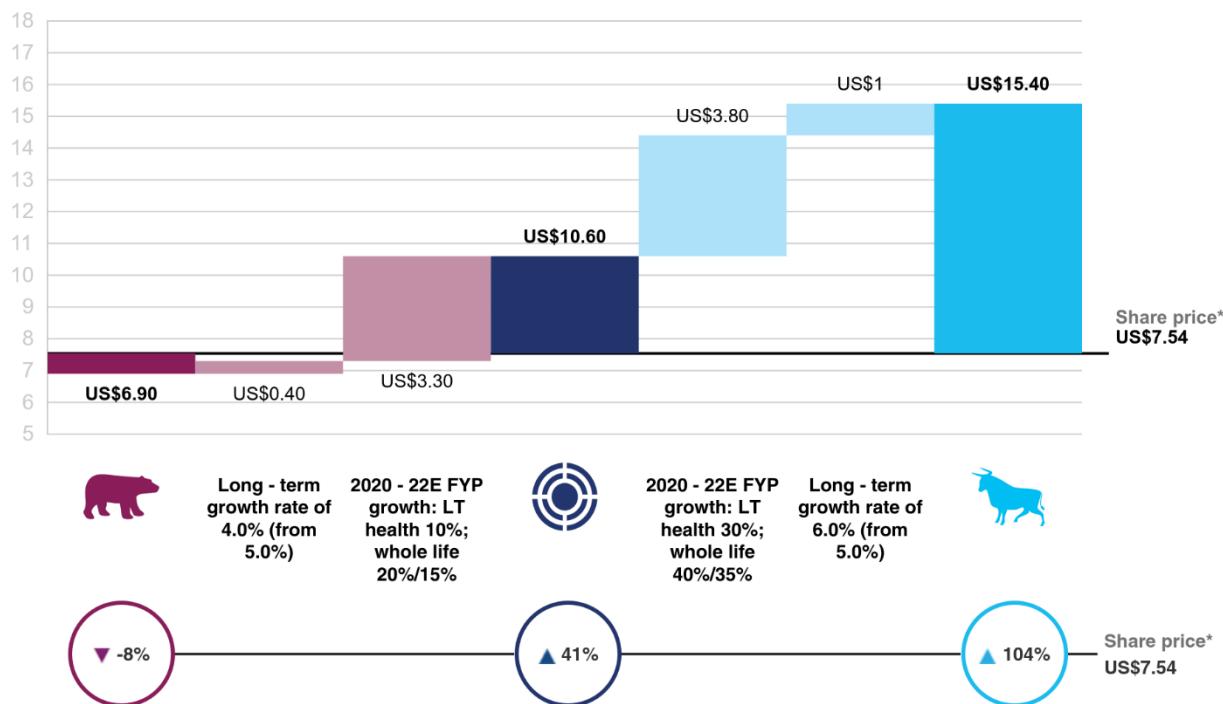


US\$10.6 target price

41% expected share price return

Buy/High Risk rating

112pp Bull/Bear Spread



- 2020-22E LT health FYP growth of 30% (from 20%) and 2020E whole life growth of 40%/35% (from 30%/25%) to reflect better-than-expected growth
- Long-term growth rate of 6.0% (from 5.0%)



- 2020-22E LT health FYP growth of 20% and 2020E whole life growth of 30%/25% to reflect better-than-expected growth
- Long-term growth rate of 5.0%



- Long-term growth rate of 4.0% (from 5.0%)
- 2020-22E LT health FYP growth of 10% (from 20%) and whole life growth of 20%/15% (from 30%/25%) to reflect worse-than-expected growth

Risk Factors

- **Increasingly stringent regulations over insurance intermediaries –**
Regulators repeatedly emphasized the need to rein in irregularities in the Internet insurance intermediary space. Other than the more clear-cut guidelines on Internet insurance businesses, CBIRC put out plans to rectify chaos in the Insurance intermediary market. Although Huize is relatively resilient as a large and licensed Internet insurance intermediary, there could be constraints in Huize's business model and traffic accumulation if regulators decide to put stricter regulations in place.
- **Long-term protection products most impacted under COVID-19 –**Owing to uncertainties for the outlook for household income amid the economic downturn triggered by COVID-19, demand for long-term protection products has been pushed into the future, hence sales have been relatively subdued recently. Compared to other platforms that are focused on short-term health and P&C products, Huize's focus on long-term health products could be risky under the COVID-19 backdrop. Particularly, Huize could face challenges from traditional offline agency models due to the drop in active demand. Huize could see a pullback in revenue and operating data if the coronavirus situation is prolonged.
- **Potential share price volatility with changes in significant shareholders –**Huize's share price could come under pressure if any of the existing significant shareholders decide to dispose their ADSs or common shares post the 180-day lock-up period. However, this could be mitigated if the company introduces new strategic investors into the firm with stronger business synergies.

Figure 85. Regulators' conviction to rein in chaos in the insurance intermediary market could mean potential constraints to Huize's business

Regulatory Body	Date of Issuance	Regulations/Documents	Implications
CBIRC	Effective in 1995 and last amended in 2015	PRC Insurance Law / Insurance Brokerages Provisions	<p>License required to operate insurance brokerage business</p> <p>Insurance broker when engaging in insurance brokerage business, may not exceed the business scope and business area of the underwriter. An insurance broker may operate all or part of the following businesses:</p> <ul style="list-style-type: none"> (i) draft insurance plans for policyholders, select insurance companies and process insurance application formalities; (ii) assist insured parties or beneficiaries in making claims; (iii) carry out reinsurance brokerage businesses; (iv) provide disaster prevention or loss prevention or risk evaluation and risk management advisory services to entrusting parties; and/or (v) any other insurance brokerage related businesses stipulated by the CIRC. <p>An insurance broker and its practitioners may not sell non-insurance financial products except approved by relevant financial regulatory authorities</p>
CBIRC	1-Sep-07	Administrative Measures for Insurance Licenses	Insurance brokerage institutions and their branches within the territory of PRC shall obtain an Insurance Brokerage License
CBIRC	16-May-13	Notice on Further Clarifying Issues concerning the Market Access of Specialized Insurance Intermediaries	<p>Brokerage companies established before the issuance of the two Decisions with a registered capital of less than RMB50 million may only apply for establishment of branches in the provinces, autonomous regions or municipalities where they are registered.</p> <p>Brokerage companies established before the issuance of the two Decisions with a registered capital of less than RMB50 million and with branches established in the provinces, autonomous regions or municipalities other than their place of registration may apply for establishment of branches in such provinces, autonomous regions or municipalities.</p>
CBIRC	16-May-13	Decision on Amending the Regulatory Provisions for Specialized Insurance Agencies and the Decision on Amending the Provisions on the Supervision of Insurance Brokerage Institutions	<p>Brokerage companies that engage in Internet insurance business shall have a registered capital of no less than RMB50 million, except for those conducting Internet insurance business according to law before the issuance of the two Decisions.</p>
CBIRC	2-Apr-19	2019 Plan for the Rectification of Chaos in the Insurance Intermediary Market	<p>To further curb the chaos of violations of laws and regulations in the insurance intermediary market:</p> <ul style="list-style-type: none"> (i) to ascertain insurance companies' responsibility for management and control of various intermediary channels; (ii) to carefully investigate business compliance of insurance intermediaries; (iii) to strengthen the rectification of insurance business of the third-party online platforms in cooperation with insurance institutions

Source: CBIRC, Company Reports, Citi Research

Figure 86. Principal shareholders of Huize Holding (as of March 2020)

	Common shares Beneficially Owned			
	Class A Common Shares	Class B Common Shares	% of Total Common Shares	% of Aggregate Voting Power
All Directors and Executive Officers as a Group	20,601,160	150,591,207	16.5	76.5
Principal Shareholders:				
Huidz Holding Limited	—	150,591,207	14.5	71.8
SAIF IV Healthcare (BVI) Limited	195,825,080	—	18.9	6.2
Crov Global Holding Limited	183,929,140	—	17.7	5.8
Wande Weirong Limited	98,321,680	—	9.5	2.9
CDF Capital Insurtech Limited	80,991,300	—	7.8	2.5
Bodyguard Holding Limited	55,150,084	—	5.3	—

Source: Company Reports

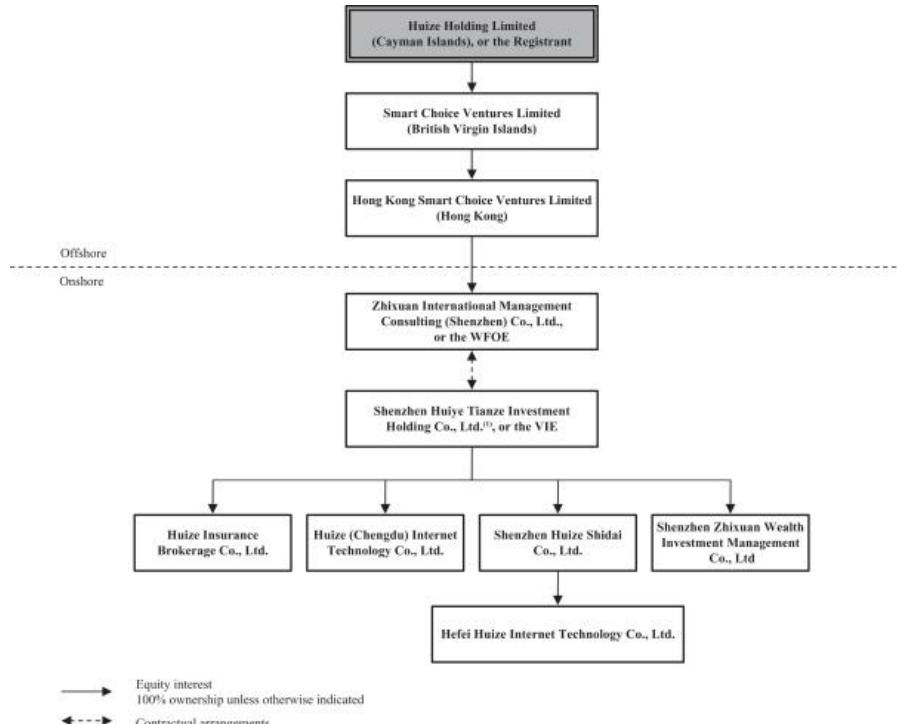
Appendix

Figure 87. Management Background of Huize Holding

Name	Position/Title	Background
Cunjun Ma	Chairman of the Board of Directors and Chief Executive Officer	<ul style="list-style-type: none"> ▪ Founder ▪ Chairman of Board of Directors and CEO since inception ▪ 23 years of insurance related experience, ▪ Worked as the head of a subsidiary of Hua An Property Insurance Co., Ltd. for two years ▪ Worked in Shenzhen branch of Ping An Property Insurance from 1995-2004 ▪ MBA degree from Nankai University
Li Jiang	Director and Chief Operating Officer	<ul style="list-style-type: none"> ▪ Chief Operating Officer since 2015 ▪ Senior manager in Starr Insurance (China) from 2009-2015 ▪ Senior manager in AIG Insurance from 2003-2009 ▪ Master's degree in Marketing from Hong Kong University
Tracey Chow	Director and Co-Chief Financial Officer	<ul style="list-style-type: none"> ▪ Co-chief financial officer since April 2019 and director since June 2019 ▪ Hillhouse Capital from June 2015 to August 201 ▪ Senior associate in HOPU Investment from 2014-2015 ▪ Senior associate in China International Capital Corporation from 2010-2014 ▪ Graduated from MBA program of Yale University in 2010
Minghan Xiao	Co-Chief Financial Officer	<ul style="list-style-type: none"> ▪ Co-chief financial officer since November 2016 ▪ Worked as chief financial officer, senior accountant or secretary of board of directors in several companies from 2007-2016 ▪ Graduated with Master's degree in Logic from the Department of Philosophy Sun Yat-sen University in 1998
Xuchun Luo	Director and Secretary of the Board of Directors	<ul style="list-style-type: none"> ▪ Secretary of the board of directors since inception ▪ 15 years of insurance related experience ▪ 20 years of accounting and financing related experience ▪ Department manager in Shenzhen Huize Internet Insurance Agent Co., Ltd. from 2007-2011
Kai Ouyang	Chief Technology Officer	<ul style="list-style-type: none"> ▪ Chief technology officer since September 2014 ▪ Technical director of Fangduoduo Internet Technology Co., Ltd from 2011-2014 ▪ Technology architect in Tencent Technology Co., Ltd. from 2008-2011 ▪ PhD degree from Huazhong University of Science and Technology 2006
Haosheng Song	Chief Content Officer	<ul style="list-style-type: none"> ▪ Chief content officer since 2015 ▪ Master's degree in advertising from Communication University of China in 2007
Yongsheng Wang	Chief Human Resources Officer	<ul style="list-style-type: none"> ▪ Chief human resources officer since 2016

Source: Company Reports

Figure 88. Huize Holding's Corporate Structure



Note: (1) Shareholders of Shenzhen Huiye Tianze Investment Holding Co., Ltd., or Huiye Tianze, are: (1) Shenzhen Huidecheng Investment Development Limited Partnership and Shenzhen Huideli Consulting Management Limited Partnership, both as Huize's PRC ESOP holding entities, holding an aggregate of 27.56% shares in Huiye Tianze; (2) PRC holding entities of Huize's shareholders, holding shares in Huiye Tianze in a shareholding structure substantially identical to their respective shareholding in Huize.

Source: Company Reports

Huize Holding Ltd

Company description

Huize Holding Ltd is a leading independent online insurance broker in China focusing on long-term life insurance products. Huize is a licensed insurance intermediary operating an online platform and it distributes life, health and P&C insurance products underwritten by insurer partners. As well as distributing products through innovative indirect channels leveraging the KOL economy in China, the company also has its own direct online channel. Huize's founding team began operating an online insurance intermediary business in 2006, and Huize Holding Ltd was listed on NASDAQ in 2020. In 2019, Huize facilitated gross written premiums of Rmb2,014mn.

Investment strategy

We rate Huize at Buy/High Risk (1H) with a target price of US\$10.6. Huize is a forerunner and market leader in the online distribution of long-term health products in China. We like the company's asset-light model, stable recurring revenue streams from long-term health products and future strategic opportunities. Cooperating with Internet key opinion leaders (KOLs), Huize facilitates young, tech savvy and highly-educated customers to select suitable LT health insurance policies. It also participates in insurers' product design, underwriting and claims handling processes.

Valuation

Our target price for Huize of US\$10.6 is based on a DCF valuation. We project free cash flows up to 2029E followed by a terminal growth rate of 5.0%, discounted by a WACC of 13.3%. We derive Huize's WACC using a 3.0% risk-free rate, a market risk premium of 6.0% and a beta of 1.75. Our target price for Huize implies a 2020E adjusted P/E ratio of 25x.

Risks

We assign a High Risk rating to Huize given that the stock is deemed to be relatively volatile by our quantitative risk-rating model (based on stock price movements in the past year). Key downside risks that could prevent Huize shares from reaching our target price include: 1) Stringent regulations over insurance intermediaries might constrain Huize's future development; 2) Long-term protection products are most impacted under COVID-19, placing Huize at a disadvantage; 3) Changes in significant shareholders could result in share price volatility.

Company Focus

Hundsun Technologies (600570.SS)

Initiate at Buy; Best Positioned Leader in FinTech Services

■ Initiation of Coverage

Buy

Price (03 Jul 20 15:00)	Rmb105.950
Target price	Rmb129.000
Market Cap	Rmb110,621M
	US\$15,655M
Expected share price return	21.8%
Expected dividend yield	0.4%
Expected total return	22.1%

- **Initiate at Buy and TP of Rmb129** — Being a top financial technology services provider in China, Hundsun has dominant market shares in the securities brokerage system (50%) and portfolio mgmt IT system for insurers, trust and asset managers (70%~90%) with high customer loyalty. We see multiple catalysts ahead for further business expansion stemming from continuous system upgrade demands, the emergence of new financial products and services in the market and a rising number of FIs in China. Meanwhile, leveraging the vast client base of controlling shareholder Alibaba, Hundsun is also developing edge-cutting financial technologies such as Cloud solutions as new growth drivers.
- **A Clear Leader in FinTech Service** — Hundsun is a leader in providing financial technology services in China, offering a full-suite of products for all types of financial institutions. As of 2019, Hundsun attained majority market shares of 50% in securities brokerage systems and of 70%~90% in insurance funds, trust funds and banks. Client loyalty is typically high thanks to clients' strong emphasis on system stability and data confidentiality and high switching costs.
- **Multiple Catalysts Ahead for Traditional Biz** — Boasting a broad and high-quality customer portfolio, Hundsun is well positioned to capture opportunities from existing clients' rising technology demands on a) system upgrades along with their business growth, 2) rollout of various of new financial products and services (e.g. REITS), and 3) fulfilling evolving regulatory requirements (e.g. compliance). Meanwhile, new entrants in Chinese financial markets at home (e.g. banks' asset mgmt subsidiaries) and abroad (foreign FIs) spurred by govt policy changes continuously broaden Hundsun's addressable market size.
- **Innovative Biz Riding on Strong Client Base and Alibaba's Cloud Tech** — Hundsun has also incubated or acquired specialized FinTech entities to focus on innovative and edge-cutting solutions to quickly cater to existing clients' new demands such as Financial Cloud and AI. Compared to project-based traditional lines, innovative biz generates revenue in the form of recurring subscription fees. Particularly, with Alibaba being the controlling shareholder, Hundsun has leveraged the former's R&D capabilities and jointly launched Cloud and middle office solution products.
- **Risks** — Major downside risks that might impede the Hundsun stock from reaching our target price include: 1) Reduced client budgets for technology upgrades amid an economic downturn or reduced trading; 2) Disruption from other technology players; 3) Regulators tightening their grip on FinTech developments.

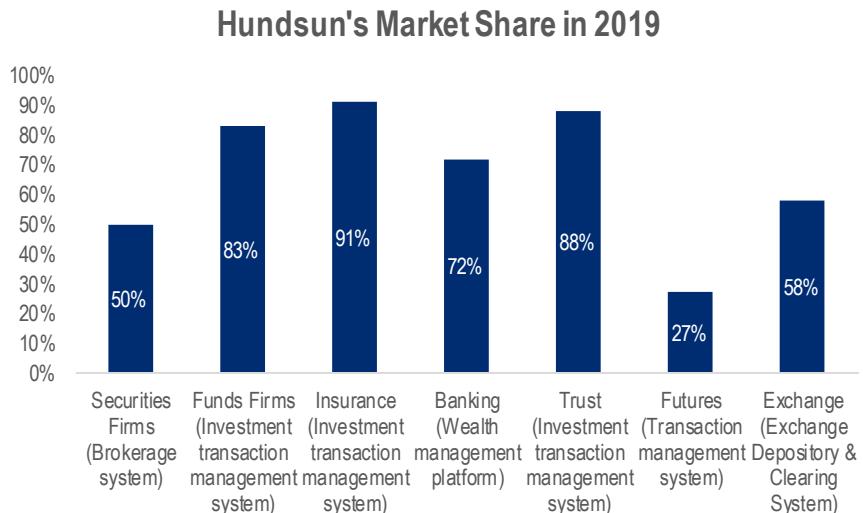
Leader in financial software

Founded in 1995, Hundsun Technologies is a leader in the financial technology and software solutions field. The company is mainly a B2B provider offering a full-suite of products for securities companies, banks, funds, future companies, trusts, insurance companies, etc. As of 2019, Hundsun had attained majority shares in most of its markets. The company is a clear leader in investment management platforms for buy-side institutions, with 70%~90% take-up in insurance funds, trust funds and banks in 2019. The firm also has a decent 50% share of the securities brokerage system market. Hundsun's leading position as a core system provider indicates that revenue streams are likely to be stable, due to the long product cycle (usually 7-8 years for fundamental platforms) and high switching costs (it typically takes 2-3 years to switch from one software provider to another).

Hundsun has a vast addressable market as it is able to serve various players in the financial market. More than four-fifths of Hundsun's revenue were generated from its traditional businesses in 2019. 38% of Hundsun's operating income was contributed by retail-level IT, which aids firms to serve their end-clients via brokerage and wealth management systems. This was followed by asset management IT, which accounted for 29% of revenues and assists financial institutions in their asset allocation and portfolio management, etc. Hundsun focuses on risk management and other middle office functions with its Data & Risk Infrastructure line, while Banks and Industry IT provides services like transaction banking and supply chain finance, etc. Additionally, 14% of Hundsun's revenues are sourced from its innovative Internet business, which supplements financial institutions' businesses with FinTech capabilities. The innovative businesses equip Hundsun with an edge over traditional software players and generate recurring subscription revenues for the company.

Hundsun has robust financials. The company maintained consistent income growth, registering 18% operating income CAGR through 2010-2019 despite being a market leader. Except for non-finance businesses, Hundsun has a high gross margin above 90% for most of its business lines. Taking into account its manpower and selling costs, net profit still exhibited 23% CAGR through 2010-2019. Net profit margin was mostly in the 20%~30% range over the last decade.

Figure 89. Hundsun leads in most of the buy-side markets, coupled with a decent 50% share of the securities brokerage market in 2019



Source: Company Reports

Figure 90. Hundsun divides business lines into six major traditional business lines and innovative business



Source: Company Reports and Citi Research

Figure 91. Hundsun's strategy is supported by major middle offices and services



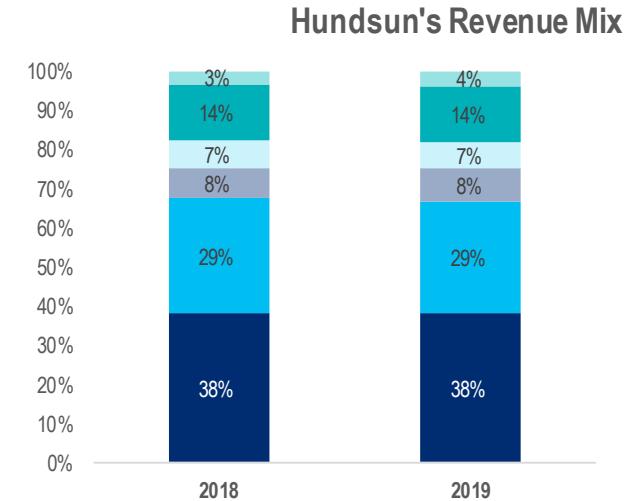
Source: Company Reports and Citi Research Estimates

Figure 92. Hundsun caters to needs of different financial market players

Business Lines	Major Products and Services
Retailers IT	
Brokerage	Brokerage transaction and settlement system (UF2.0); centralized operations platform BOP; Stock trading application Investment Winner (投资赢家)
Wealth Management	Wealth Management Sales 5.0 (理财销售5.0); Transfer Agent (TA 6.0) System; BTA System for wealth management subsidiaries; Asset Allocation System
Asset Management IT	Investment management system O32; Valuation Calculation System
Data & Risk Infrastructure IT	Data Middle Office; Risk management and compliance systems; IT solutions for Exchanges; RegTech
Banks and Industry IT	Intermediary Services for Commercial Banks; Transaction Banking; Internet Credit Businesses; Supply Chain Finance
Internet IT	Cloud, SaaS, Blockchain, iSimu (i私募) one-stop private equity platform

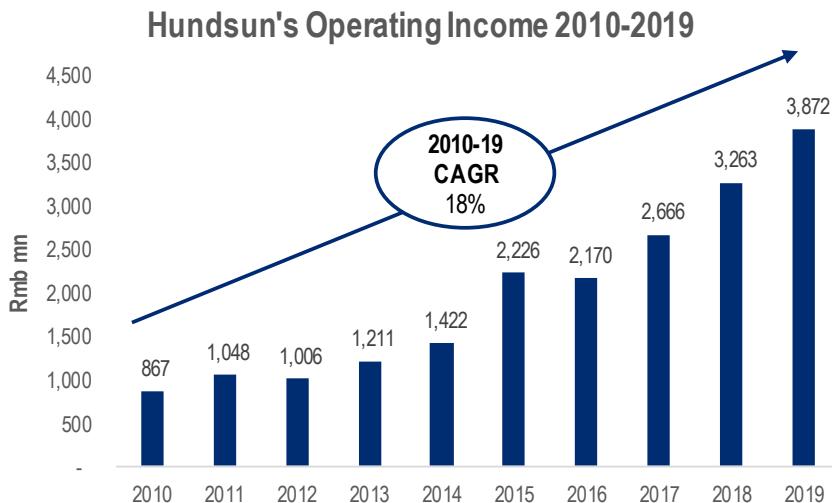
Source: Company Reports and Citi Research

Figure 93. Traditional businesses contributed 82% of Hundsun's revenue in 2019; Internet Innovation is rising in importance at 14% of revenue



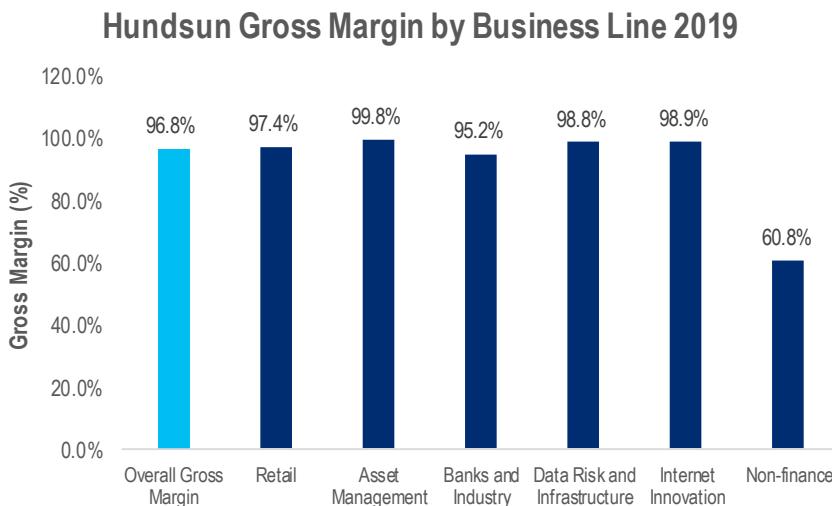
Source: Company Reports and Citi Research

Figure 94. Hundsun's operating income exhibited a healthy CAGR of 18% through 2010-2019



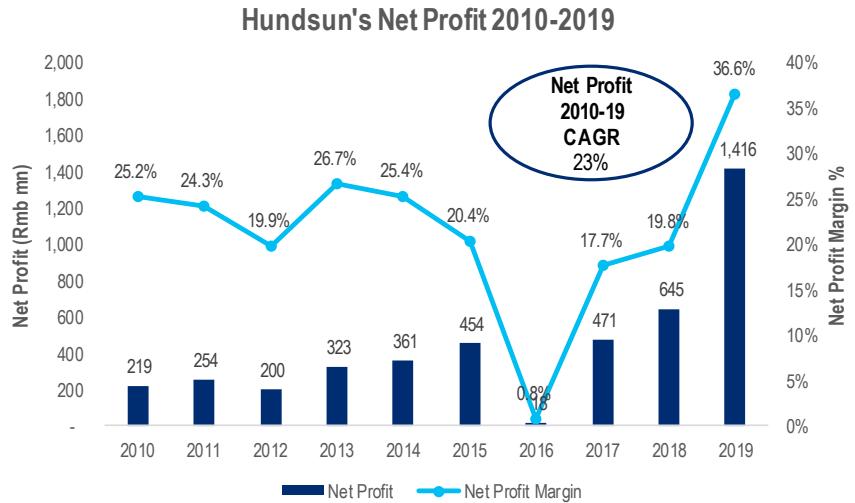
Source: Company Reports and Citi Research

Figure 95. Hundsun has a high gross profit margin above 90% owing to its software model



Source: Company Reports and Citi Research Estimates

Figure 96. Hundsun shows robust 23% CAGR in net profit through 2010-2019



Source: Company Reports and Citi Research

Traditional Business: Multiple Catalysts Ahead

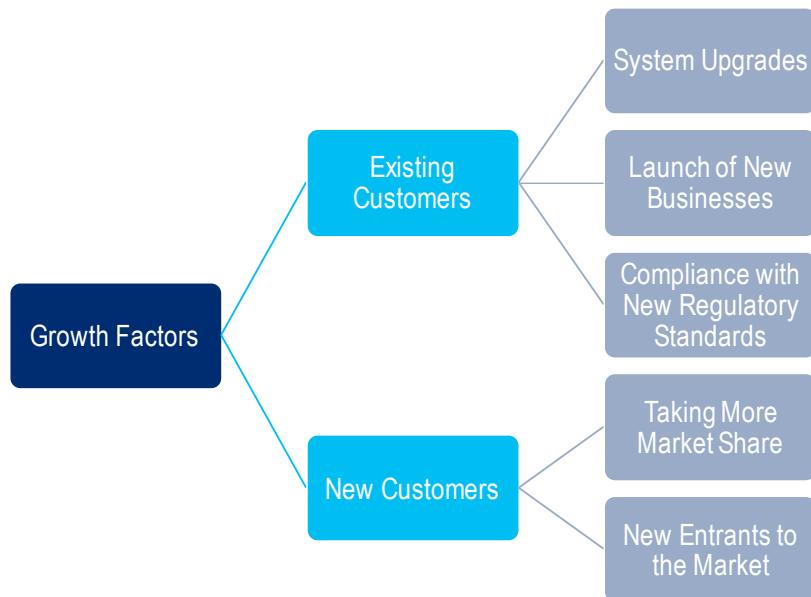
We believe growth catalysts remain intact for Hundsun's traditional businesses. For Hundsun's **existing customers**, we believe the needs for system upgrades and new external demands would propel revenue growth:

- **System upgrades** – Given the stickiness and high switching costs of the platform businesses, financial institutions tend to upgrade their systems with their existing software providers. This is beneficial for Hundsun as the company dominates in most of the fields in which it competes. For example, a recent upgrade to the company's asset management system O45 (from O32) was implemented in a number of financial institutions.
- **Launch of new businesses** – As China's financial markets mature, more financial products and services would be rolled out to meet customers' demands. For example, regulators started a pilot scheme for fund investment advisory businesses in 2019, in which licensed institutions were required to acquire new systems. Recent initiatives to permit funds to issue public REITs for infrastructure projects exemplify the new markets that institutions have yet to tap into.
- **Compliance with new regulatory standards** – Regulators have been very active with market reforms in recent years to refine the financial market in China. Consequentially, many financial institutions are obliged to upgrade their product offerings or system requirements to be compliant with the new rules. In the securities sector, regulators have commenced reforms to the NEEQ, ChiNext board and STAR markets, prompting institutions to update systems. On the other hand, new asset management and wealth management rules mean changes to wealth management products, hence relevant software would need to undergo enhancements as well.

On the other hand, we see potential for Hundsun to acquire **new customers** under the new market dynamics:

- **Taking more market share** – Though it is difficult and time consuming, Hundsun's branding and reputation as a market leader, along with continuous research and innovation, mean it is well placed to attract clients to switch providers. However, switching costs are high and it takes 2-3 years for changes to platforms, hence we do not see this as a major source of new clients for the company.
- **New entrants to market** – We believe new entrants to the market would be interested in working with Hundsun. Financial authorities expedited the opening up of the markets to foreign players in recent years. For example, the foreign ownership cap of life insurance companies has been relaxed since 2020. The regulators also laid out a plan for the relaxation of foreign ownership in securities companies, futures companies and fund management companies for the rest of 2020. Hundsun enters into partnerships with renowned international technology companies, which we believe could further enhance its reputation among foreign customers. For example, Hundsun announced a partnership with Finastra in early June, so as to develop a new version of portfolio management systems under the Chinese backdrop. Therefore, we think Hundsun is well-equipped to tap into the influx of new players and expand its clientele.

Figure 97. Major growth factors for Hundsun's traditional business



Source: Citi Research

Figure 98. Recent financial market reforms and opening up to foreign players spur demand for Hundsun's software solutions

Sector	Date	Category	Industry / Regulatory Changes
Securities	2019	Market Reform	Reforms to the NEEQ (or 'New Third Board')
	2020	Foreign Opening-up	Relaxation of foreign ownership of securities, futures and fund management companies
	2020	Market Reform	Reforms to ChiNext Startup Board; Pilot for Registration-basis Listing
	2020	Market Reform	Reforms to the STAR Market
	2020	Market Reform	Shanghai Exchange studying possibilities for same-day settlement (or 'T+0' mechanism)
	2020	Market Reform	Rumors of CSRC's plans on granting broker licenses to commercial banks
Banking	2018	New Entities	Commercial Banks' Wealth Management Subsidiaries
	2019	Market Reform	Relaxation of bond investments in securities exchanges by banks
	2019	Market Reform	Loan Prime Rate (LPR) Interest Rate Reforms
Asset Management	2018	Market Reform	New Asset Management Rules
	2018	Market Reform	New Wealth Management Rules
	2019	Market Reform	Pilot program for fund investment advisory businesses
	2019	Foreign Opening-up	Foreign fund-controlled Wealth Management Company establishment
	2020	Market Reform	Pilot program to allow mutual funds to issue public infrastructure REITs
	2020	Foreign Opening-up	Foreign institutions apply for mutual fund licenses in China
Insurance	2019	Foreign Opening-up	Relaxation of foreign ownership cap in life insurance companies
	2020	Market Reform	New Insurance Asset Management Rules
Futures & Options	2019	Market Reform	Expansion of Pilot Program for Stock Index Options (CSI300 ETF)
	2019	Market Reform	Product guidance for security funds institutions' Manager of Managers (MOM) Products
	2020	Market Reform	New commodities options trading
Others	2019	Market Reform	New regulations over financial holding companies

Source: Media Reports, CBIRC, CSRC, Citi Research

Innovative Business: Rides on Strong Client Base and Alibaba's Cloud Technologies

Hundsun has been striving to develop its Internet innovative business, enhancing the company's FinTech capabilities and creating a recurring revenue stream. Hundsun allocated 40% of its operating income to research and development expenses in 2019. On top of internal R&D from the company's business department, Hundsun's three-tier R&D framework also comprises a specialized R&D center and an R&D institute 'HSRDH'.

Riding on the capabilities of controlling shareholder Alibaba's Ant Financial, Hundsun is able to further develop its cloud computing capabilities. In 2014, Jack Ma acquired a controlling stake in Hundsun via Ant Financial, which owns a 20.72% stake in Hundsun as of YE2019. In May 2019, Hundsun introduced JRES3.0 powered by Ant platform with Ant Financial and Alibaba Cloud. In August 2019, the company introduced Data Middle Office powered by Alibaba Cloud (恒生数据中台 Powered by Alibaba Cloud). In December 2019, Hundsun and Alibaba Cloud jointly launched NewCloud, a financial cloud solution designed for security companies, funds and future companies, etc.

In addition, Hundsun incubated a number of subsidiaries which focus on innovative solutions for various markets. In 2019, Yunyi Network and Yunying Network saw stable growth with their cloud services. Yunji Network focuses on developing the iSimu one-stop service platform for the private equity industry. Through the merger of Hundsun.com Co. Limited and Ayers Solutions Limited, Hundsun Ayers Technologies was set up in 2019 to provide trading and settlement systems for Hong Kong and overseas clients. Additionally, Hundsun released a new brand 'Light' with emphasis on FinTech innovation in 2020, utilizing capabilities including big data, artificial intelligence, blockchain and cloud computing.

Figure 99. Hundsun developed a three-tier R&D framework

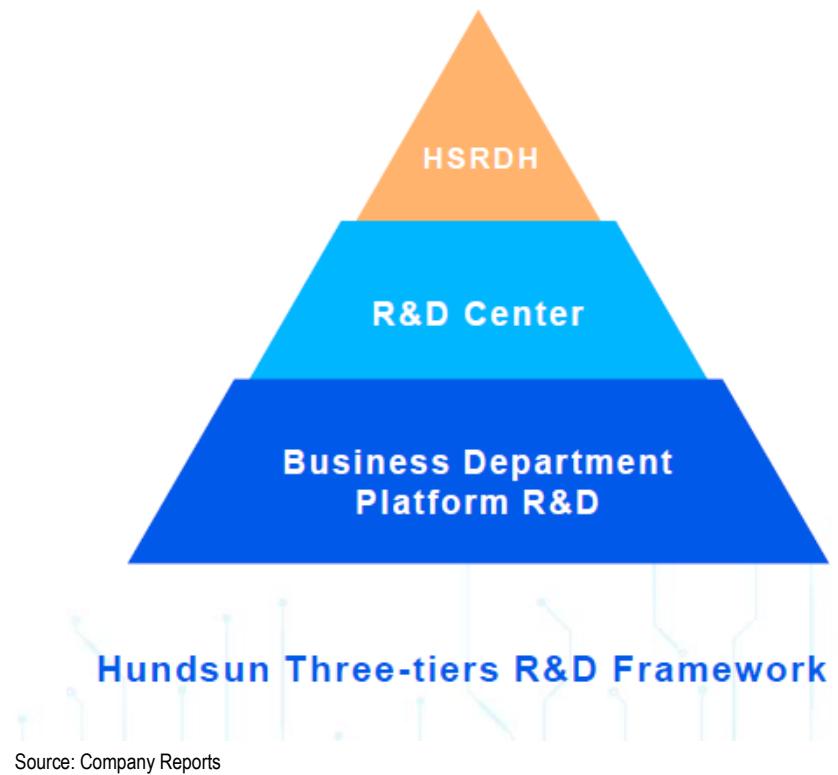
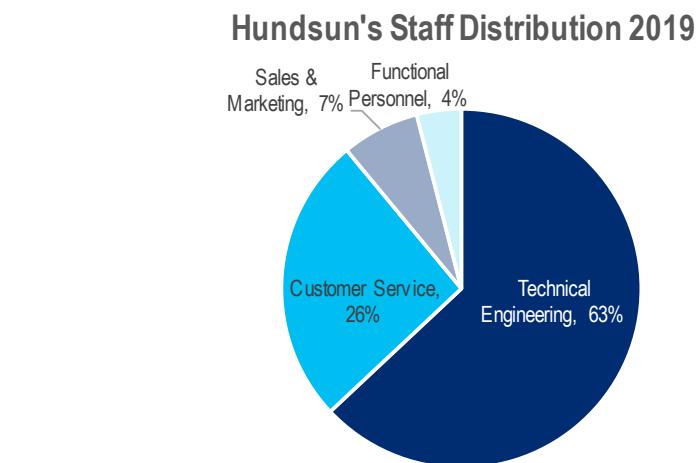
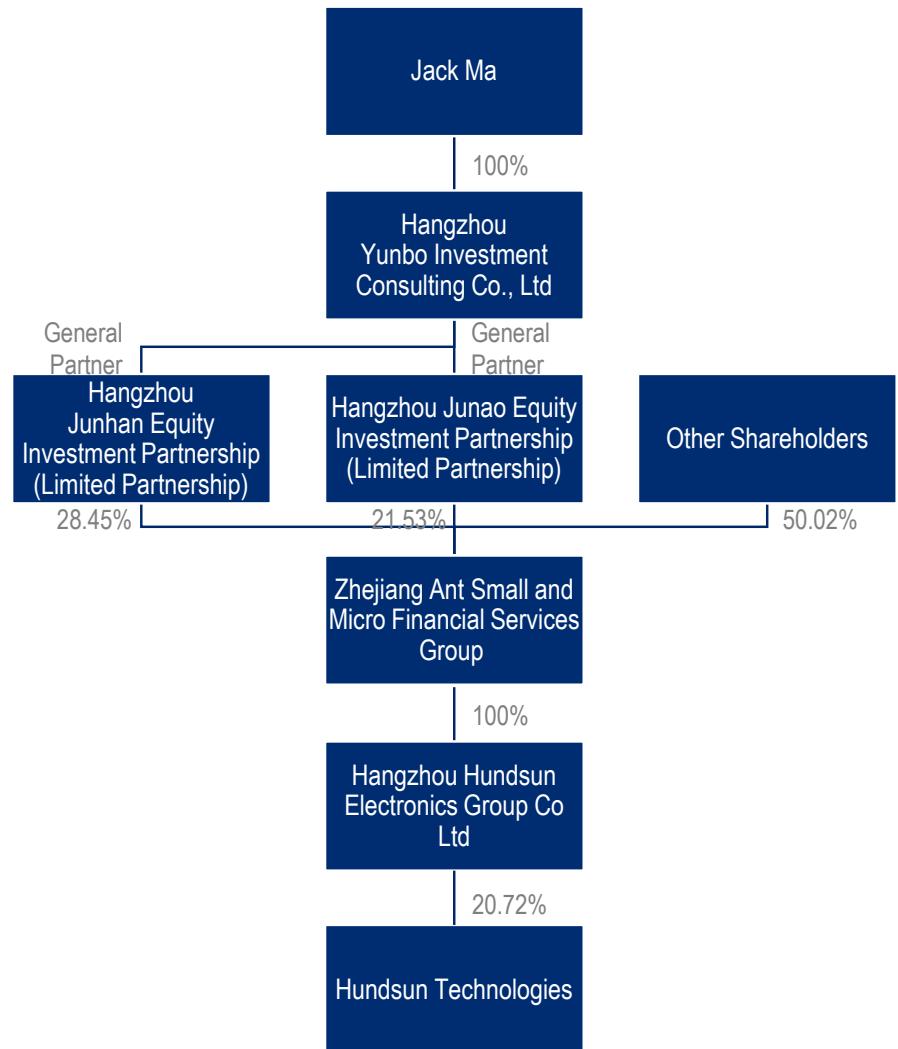


Figure 100. Almost two-thirds of Hundsun's staff are technical engineers (2019)



Source: Company Reports and Citi Research

Figure 101. Hundsun Technologies is controlled by Ant Financial with a 20.72% stake (as of YE2019)



Source: Company Reports, Thomson Reuters Eikon, Citi Research

Figure 102. Hundsun's subsidiaries focusing on innovative solutions

Subsidiary	Major Business	Products
Yunyi Network(云毅网络)	Innovative IT Platforms and Services for Asset Management Institutions	Asset Management Cloud (资管云); OPLUS
Yunying Network (云英网络)	Wealth management services	Wealth Management Cloud SaaS
Hundsun Ayers (恒云科技)	Global securities, futures and ETF trading and settlement systems	Data Center, Global Trading System, Settlement and Account Opening Solutions
Yunji Network (云纪网络)	Private equity	iSimu (i私募) for private equity; smart product iSee
Gldata (恒生聚源)	Financial data information provider	Financial databases and smart modules for mobile applications
Jingteng Network (鲸腾网络)	Financial public infrastructure services and AI services	Data, payment, KYC solutions, etc.
Yunying Network (云赢网络)	Internet Finance IT services	PC, APP, Web and HTML client
Business Intelligence Shenzhou (商智神州)	Portfolio Management and AI-based solutions	Financial Plan Platform (FPP), Robo Advisory (BiRobot 3.0)
Yunyong Network (云永网络)	E-commerce, Cloud-based clearing and settlement, Supply Chain Finance	Project Management Tool (FA管家) for financial advisors; commodities trading platform

Source: Company Reports, Company Website, Citi Research

SWOT Analysis

Figure 103. SWOT analysis for Hundsun Technologies

SWOT analysis	
Strengths	Weaknesses
Immense experience in the financial technology field since being founded in 1995	Limited exposure to B2C market
Exposure to most of the sub-segments within financial sector	Lack of sufficient employee share ownership incentives
Strong market share especially among buy side financial institutions	Major traditional business revenue is mostly one-off without recurring revenue
Market leader in a business with high customer stickiness	Requires physical delivery for most solutions and hence affected by COVID-19
Robust financials with strong profit growth history	Most traditional solutions focusing on investment management and brokerage; less exposure to other parts of financial institutions' businesses
Synergies with controlling shareholder Ant Financial in financial technology innovation	
Structured three-tier research and development framework	
Incubation of innovative businesses with subsidiaries	
Mix of both traditional and innovative businesses	
Stable dividend payout ratio at c.30% over recent years	
Opportunities	
Challenges and risks	
Revenue growth opportunities with system upgrades	Reduced client budget for technology upgrades amid economic downturn or subdued trading
Potential client acquisition with the opening up of financial industry and entrance of new financial players	Revolutionary disruption from other technology players
New regulatory and exchange standards to prompt system upgrades	Regulatory tightening on FinTech development (e.g. the use of cloud in financial market)
Recent market reforms indicating new revenue opportunities for Hundsun	Less-than-expected synergies with Ant Financial / Alibaba
Further development in more back office functions technologies (e.g. data and risk management)	Competition from rising FinTech players
Shifting to online implementation enabling more seamless upgrades	
Potential M&A of companies with outstanding FinTech capabilities	

Source: Citi Research

Valuation

Our target price for Hunsun Technologies of Rmb129 is based on a DCF valuation. We project free cash flows up to 2029E followed by a terminal growth rate of 6.5%, discounted by a WACC of 9.3%. We derive Hunsun's WACC using a 3.0% risk-free rate, a market risk premium of 6.0% and a beta of 1.1. Our target price for Hunsun implies a 2021E P/E ratio of 76x.

Figure 104. Summary financials for Hunsun Technologies (Rmb mn)

	2015	2016	2017	2018	2019	2020E	2021E	2022E
Profit and loss								
Operating income	2,226	2,170	2,666	3,263	3,872	4,470	5,206	6,065
Operating expenses	1,835	2,138	2,617	2,873	3,147	3,564	4,017	4,556
Operating expenses	163	99	90	94	125	144	164	186
Tax and surcharges	37	41	44	43	47	54	62	73
Selling expenses	582	663	750	882	927	1,064	1,223	1,425
Administrative expenses	1,058	1,335	1,734	446	486	563	651	758
R&D expenses	0	0	0	1,405	1,560	1,736	1,914	2,111
Net investment income	164	119	271	257	475	382	401	421
Unrealized and MTM gains (losses)	(2)	(7)	(21)	(23)	135	(49)	134	140
Operating profit	428	141	463	701	1,528	1,433	1,917	2,264
Pretax profit	515	(60)	468	700	1,527	1,432	1,916	2,263
Tax	66	(8)	35	21	112	115	153	181
Net profit attributable to shareholders	454	18	471	645	1,416	1,318	1,763	2,083
Balance sheet								
Cash and cash equivalent	303	343	500	567	1,329	1,773	2,767	3,933
Financial assets with fair value through P&L	73	17	40	176	2,694	2,829	2,970	3,119
Accounts receivable	221	262	209	152	240	255	294	342
Fixed assets	315	337	319	293	490	695	897	1,098
Goodwill	0	0	355	355	351	351	351	351
Total assets	3,975	4,548	5,852	6,216	8,359	9,425	11,083	12,948
Accounts payable	63	50	43	135	180	178	205	233
Total liabilities	1,423	2,031	2,566	2,802	3,466	3,609	4,033	4,440
Shareholders' equity	2,432	2,401	3,073	3,182	4,479	5,402	6,636	8,094
Minority interest	120	117	213	233	414	414	414	414
Total equity and minority interests	2,552	2,518	3,286	3,414	4,893	5,816	7,050	8,508
Cash Flow								
Net cash flow from operations	992	440	805	937	1,071	1,103	1,784	2,165
Net cash flow from investing activities	(1,403)	(492)	(680)	(394)	(244)	(305)	(487)	(562)
Net cash flow from financing activities	191	91	37	(487)	(75)	(354)	(303)	(436)
Free Cash Flow	880	267	707	790	704	662	1,301	1,636
Growth								
Operating income growth	56.5%	-2.5%	22.9%	22.4%	18.7%	15.4%	16.5%	16.5%
Operating profit growth	46.5%	-67.1%	228.9%	51.3%	118.0%	-6.2%	33.8%	18.1%
Net profit growth	25.9%	-96.0%	2476.2%	37.0%	119.4%	-6.9%	33.8%	18.1%
Total assets growth	31.2%	14.4%	28.7%	6.2%	34.5%	12.7%	17.6%	16.8%
Shareholders' equity growth	26.9%	-1.3%	28.0%	3.5%	40.8%	20.6%	22.9%	22.0%
Key ratios								
Gross profit margin	92.7%	95.4%	96.6%	97.1%	96.8%	96.8%	96.9%	96.9%
Net profit margin	20.4%	0.8%	17.7%	19.8%	36.6%	29.5%	33.9%	34.3%
Financial leverage (x)	1.61	1.76	1.90	1.93	1.90	1.80	1.70	1.63
ROA	13.0%	0.4%	9.1%	10.7%	19.4%	14.8%	17.2%	17.3%
ROE	20.9%	0.8%	17.2%	20.6%	37.0%	26.7%	29.3%	28.3%

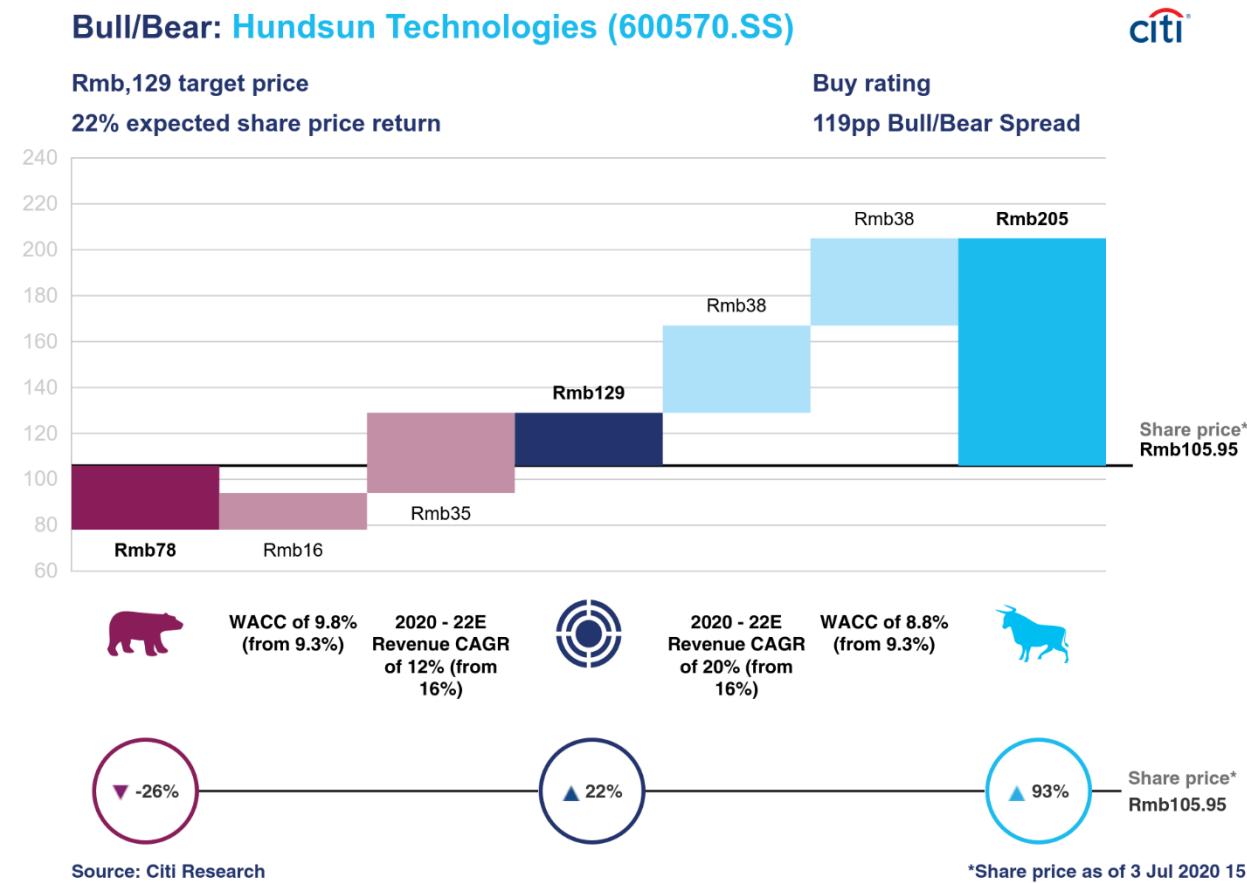
Source: Company Reports and Citi Research Estimates

Figure 105. A-Share Software Companies Peer Valuation (as of 3 July close)

Identifier (RIC)	Company Name	Last Close 3-Jul	PER (x)		Price/Book(x)		Div. Yield	
			2020E	2021E	2020E	2021E	2020E	2021E
600570.SS	Hundsun Technologies Inc	105.95	83.9	62.7	20.5	16.7	0.4%	0.5%
600588.SS	Yonyou Network Technology Co Ltd	46.02	151.9	111.7	20.0	18.3	0.4%	0.5%
002439.SZ	Venustech Group Inc	42.11	44.0	34.5	7.0	5.9	0.1%	0.2%
300188.SZ	Xiamen Meiya Pico Information Co Ltd	20.31	38.5	29.2	4.9	4.3	0.6%	0.8%
002410.SZ	Glodon Co Ltd	67.40	171.3	114.2	12.8	11.9	0.3%	0.4%
300454.SZ	Sangfor Technologies Inc	193.53	85.3	62.6	15.0	12.2	0.1%	0.2%
300253.SZ	Winning Health Technology Group Co Ltd	21.45	85.1	59.7	10.8	9.3	0.1%	0.2%
688111.SS	Beijing Kingsoft Office Software Inc	315.70	186.6	122.5	21.8	18.9	0.1%	0.2%

Source: dataCentral, Citi Research, Bloomberg

Bull/Bear: Hundsun Technologies (600570.SS)



Rmb205

- 2020-22E Revenue CAGR of 20% (from 16%)
- WACC of 8.8% (from 9.3%)



Rmb129

- 2020-22E Revenue CAGR of 16%
- WACC of 9.3%



Rmb78

- WACC of 9.8% (from 9.3%)
- 2020-22E Revenue CAGR of 12% (from 16%)

Risk Factors

- **Reduced client budget for technology upgrades** – Hundsun could be indirectly impacted if clients experience a drop in revenue as a result of a business downturn or reduced trading, as clients may have to cut their technology upgrade budget or delay upgrade plans.
- **Disruption from other technology players** – Despite being a leader in the financial software field, disruption from technology players could revolutionize the market in the longer term. If Hundsun is unable to innovate quickly enough or anticipate client needs, the company could lose its position to other competitors.
- **Regulators tightening their grip on FinTech development** – Hundsun invests to develop in-house R&D capabilities and looks to acquire quality FinTech companies. As financial watchdogs had been strengthening regulations over the industry, they might impose constraints that affect Hundsun's innovations indirectly.

Appendix

Figure 106. Hundsun's substantial shareholders as of YE2019

Shareholder	No. of Shares	Stake (%)	Remarks
Hangzhou Hundsun Electronics Group Co Ltd	166,417,197	20.7	
Hong Kong Securities Clearing Company Nominees	26,031,044	3.2	
Lingen ZHOU	15,646,358	2.0	
National Social Security Fund 111	15,600,828	1.9	
Jiansheng JIANG	15,424,466	1.9	Director/Founder
Central Huijin Asset Management Ltd.	14,138,670	1.8	
China Securities Finance Corporation Limited	13,948,402	1.7	
National Social Security Fund 112	12,786,471	1.6	
Zhenggang PENG	9,230,000	1.2	Chairman
Hong CHEN	8,080,860	1.0	

Source: Company Reports

Hundsun Technologies

Company description

Hundsun Technologies is a Hangzhou-based company principally engaged in the provision of software products and services and financial data for financial institutions in China. Hundsun has a 50% market share in securities brokerage systems and 70%~90% market shares in portfolio management IT systems for insurers, trust and asset managers. The company's customers are brokers, insurance companies, futures companies, public funds, trust companies, banks, exchanges, private equity funds, among others. The company is also engaged in the provision of wealth management tools for individual investors. The company distributes its products within domestic markets and to overseas markets.

Investment strategy

We rate Hundsun Technologies at Buy with a target price of Rmb129. We like Hundsun as a top financial technology services provider in China with dominant market shares and high customer loyalty. We also believe Hundsun is well prepared for multiple business expansion catalysts ahead, including continuous system upgrade demands, the emergence of new financial products and services and a rising number of FIs in China. Meanwhile, leveraging the vast client base of its controlling shareholder Alibaba, Hundsun is also developing edge-cutting financial technologies such as Cloud solutions as new growth drivers.

Valuation

Our target price for Hundsun Technologies of Rmb129 is based on a DCF valuation. We project free cash flows up to 2029E followed by a terminal growth rate of 6.5%, discounted by a WACC of 9.3%. We derive Hundsun's WACC using a 3.0% risk-free rate, a market risk premium of 6.0% and a beta of 1.1. Our target price for Hundsun implies a 2021E P/E ratio of 76x.

Risks

Major downside risks that might impede the Hundsun shares from reaching our target price include: 1) Reduced client budgets for technology upgrades amid an economic downturn or reduced trading; 2) Disruption from other technology players; 3) Regulators tightening their grip on FinTech development.

Company Focus

ZhongAn Online P & C Insurance (6060.HK)

Initiate at Neutral/2H; Best Internet P&C Insurer in a Crowded Market

■ Initiation of Coverage

Neutral/High Risk

Price (03 Jul 20 16:10)	HK\$47.15
Target price	HK\$50.80
Market Cap	HK\$69,302M
	US\$8,943M
Expected share price return	7.7%
Expected dividend yield	0.0%
Expected total return	7.7%

- **Largest and Best Online P&C Insurer... —** Founded in 2013, ZhongAn rapidly expanded its presence to become China's largest online P&C insurer with 16% market share, covering health, lifestyle, consumer finance, auto and transportation. While we see ZhongAn as the best online insurer for its Internet-oriented operational mindset and quick self-evolving capabilities, the online P&C market is getting over-crowded after insurers were forced to seriously enter the segment due to COVID. We expect more innovations by ZhongAn that again reshuffle the industry landscape, but the stock looks fairly valued at the current price. We initiate ZhongAn with a Neutral/High Risk rating and a TP of HK\$50.8.
- **... in a Crowded Market —** Retail-oriented P&C products usually face keener competition as insurance terms are generally simple and easy to compare and replicate. The online market is hardly an exception, particularly as well-capitalized listed insurers put more emphasize more on O2O strategies and Internet giants look to take a larger piece of the pie.
- **Born with a Silver Spoon but Gradually Standing on Own Feet —** With Alibaba, Tencent and Ping An as significant founding shareholders, ZhongAn has exceptional parentage and it has leveraged its resources to build a footprint with scale. ZhongAn has shifted focus to quality and is on track to streamline via reining in less profitable businesses, increasing flows from proprietary platforms and improving technological application rates.
- **New Overseas Ventures Extending Addressable Market and Paving Way for Domestic Innovation —** ZhongAn's continuous ventures into new businesses and overseas technology exports have helped open up an extended addressable market. Meanwhile, the valuable experience accumulated will enable the company to respond quickly once license/product restrictions are lessened domestically.
- **Risks —** Downside risks include competition from other Internet insurance players; profits under stress in case of product mispricing; regulatory strengthening of marketing channels. Upside risks include; a market rally; better-than-expected investment performances; and better-than-expected Internet insurance penetration.

Largest and Best Online P&C Insurer

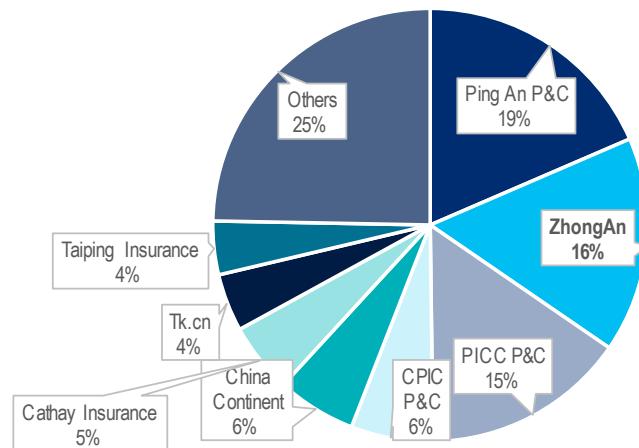
Established in 2013, ZhongAn was the first of four specialized online insurers in China. ZhongAn was founded by renowned Internet giants and insurance companies, including Ant Financial (owning a stake of 13.5% as of YE2019), Tencent (10.2% as of YE2019) and Ping An (10.2% as of YE2019). ZhongAn quickly rose in importance and attained a 16% share of the online P&C market, second only to Ping An P&C. As to the overall P&C industry, ZhongAn ranked 11th in terms of gross written premium (GWP).

ZhongAn is quick-to-market to cater to dynamic customer needs under an Internet economy. ZhongAn categorizes its product offerings into five major ecosystems, among which the insurer often introduces innovative products under various scenario platforms and its own proprietary platforms. Health ecosystem accounted for 33% of ZhongAn's GWP in 2019, which includes its flagship medical policy Zunxiang E-Sheng (尊享 e 生) and Alipay-platform medical insurance Hao Yi Bao (好醫保). The health ecosystem was also the most profitable for ZhongAn with loss ratio and channel fees totaling 73.8% in 2019. Lifestyle and consumption comes next at 26% of GWP in 2019, covering product quality and logistics risks for e-commerce platforms in China. ZhongAn mainly covers e-commerce platforms under the Alibaba Group like Tmall and AliExpress, etc. The company also works with Internet consumer finance platforms and telecom operators for its consumer finance ecosystem, which took up 21% of the company's GWP in 2019. This is followed by its travel and auto ecosystems, both contributing to 9% of the company's GWP in 2019.

Starting out as the first online insurance company, ZhongAn is uniquely positioned to fully focus on Internet insurance and technology. ZhongAn emphasized its focus on the development of cutting-edge technologies and consistently allocated 3%~8% of GWP to R&D investments in 2015-2019. 47% of ZhongAn's employees were technicians and engineers as of YE2019, allocated to specific functions of data analysis, AI and blockchain. As such, ZhongAn was able to apply technologies in different processes of their services. ZhongAn is also equipped with AI-empowered customer services and product marketing with user labels. The company provided system support to its Malaysian JV GrabInsure to offer customized UBI auto insurance. Additionally, ZhongAn strives to achieve economies of scale by exporting its technological capabilities. Technology export revenue of the company rose more than sixfold in 2017-2019.

Figure 107. ZhongAn took the second largest online P&C market share of 16% in 2018

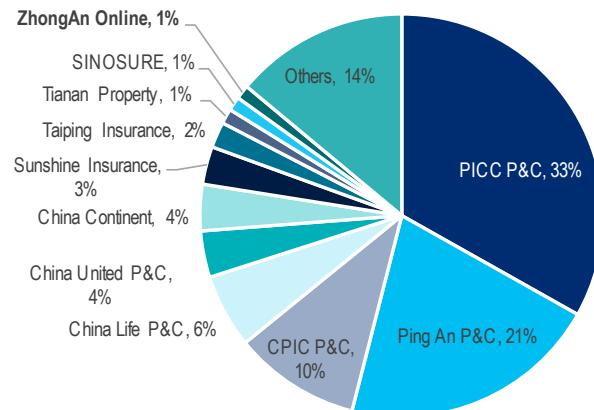
Internet P&C Insurance Market Share 2018



Source: Insurance Association of China

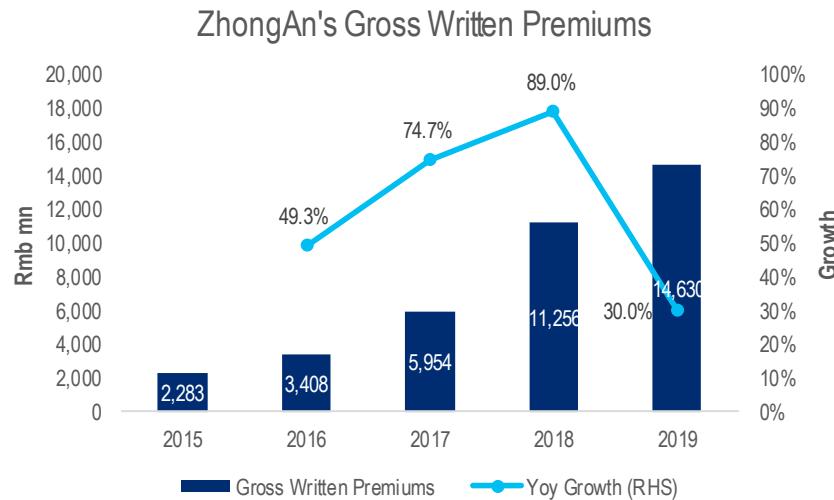
Figure 108. ZhongAn ranks 11th in the overall P&C industry in terms of GWP as of YE2019

China P&C Industry Market Share 2019



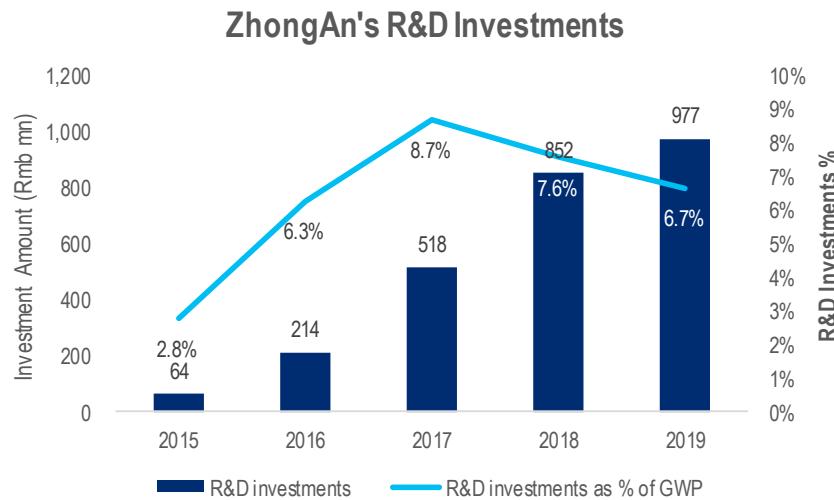
Source: WIND, CBIRC

Figure 109. ZhongAn recorded healthy GWP growth since listing



Source: Company Reports and Citi Research

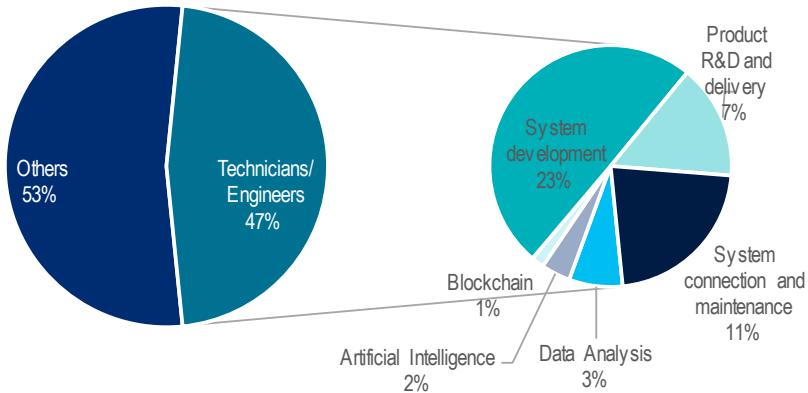
Figure 110. ZhongAn consistently allocated 3%~8% of GWP to R&D investments in 2015-2019



Source: Company Reports and Citi Research

Figure 111. 47% of ZhongAn's employees were engineers and technicians as of YE2019

ZhongAn's Employee Distribution (YE2019)



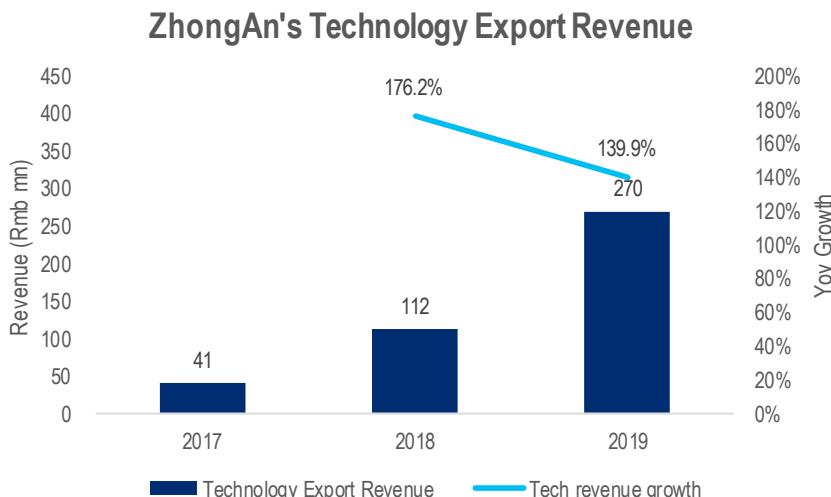
Source: Company Reports and Citi Research

Figure 112. Examples of ZhongAn's technological applications

Project	Details	Product	Technology
Intelligent Video Claim Settlement	Video claim settlement, reducing average time for claim settlement to 11 minutes	Auto Insurance	Optical Character Recognition (OCR) and AI loss assessment
Nova Technology	System connection with 1,100 hospitals for speedy claim settlement	Health Insurance	System Connection
Online customer service	AI application of online customer service reached 85%	Services	AI
Personal Clinic Policy Series Marketing	Established 534 user labels and algorithm-based guidance; raising repeated Personal Clinic Policy Series through proprietary platforms	Health Insurance	AI, Data Analysis
Wujieshan 2.0	Upgrade to core insurance system, greater capacity and process optimization	Core systems	Systems
GrabInsure (Malaysia) Usage-based Insurance	ZhongAn provided system connection and technology support for per-day basis insurance coverage	Technology Export	Internet of Things

Source: Company Reports and Citi Research Estimates

Figure 113. ZhongAn's technology export revenue more than doubled in 2018 and 2019



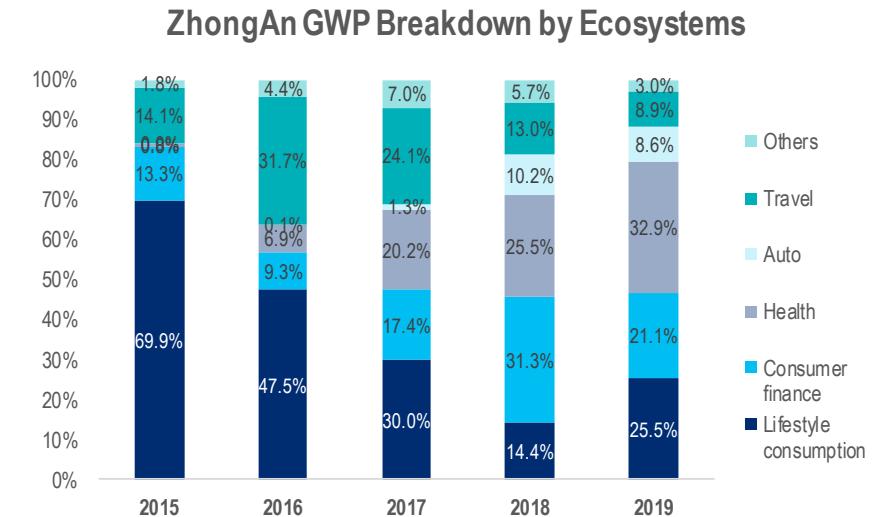
Source: Company Reports

Figure 114. ZhongAn's major ecosystem partners



Source: Company Website

Figure 115. ZhongAn provides scenario-based insurance products by ecosystems



Source: Company Reports and Citi Research

Crowded Internet P&C Insurance Market

Retail-oriented P&C products usually face keener competition as insurance terms are generally simple and easy to compare and replicate. The online market is hardly an exception, particularly as well-capitalized listed insurers are putting more emphasis on O2O strategies and Internet giants look to take a larger piece of the pie. ZhongAn is being challenged by traditional insurers moving to the Internet and by existing Internet players who are building their own presence. Competition within the Internet insurance space has grown keener over the last few years. According to Insurance Association of China, the Internet P&C market concentration ratio has been on a downtrend; with CR8 down to 76.6% in 2019 (from 94.2% in 2015) and CR3 down to 45.6% in 2019 (from 80.1% in 2015).

As P&C products are in general easy to understand, more insurers scrabble for market share in the Internet P&C field. Taking the mid-end medical or 'million-dollar medical' policy space as an example, many insurers had introduced their renditions since ZhongAn launched its pioneer product Personal Clinic Policy in 2016.

Renowned traditional insurers and Internet insurers offer 'million-dollar medical' policies with competitive terms and pricing, including guaranteed renewal clauses of 6 years. As a result, the mid-end medical policy market rose by almost 6x from 2016-2017. China Re, the largest Chinese reinsurer, also estimated 'million-dollar medical' insurance premium growth would sustain its momentum to see 76% growth in 2019. Insurers' swarming into the field indicates that ZhongAn would continue to see pressure from industry competition.

Figure 116. Renowned traditional and online insurers launch 'million-dollar medical' policies with competitive terms and pricing

Insurer	Policy	Term (Years)	Policyholder Age (Years)	Guaranteed Renewal	Basic Co-payment (Rmb)	Basic Sum Insured (Rmb)	Critical Illness Co-payment (Rmb)	Critical Illness Sum Insured (Rmb)	Premium Rate (Rmb)*
ZhongAn Online	Personal Clinic Policy 2020 (尊享e生2020)	1	0-60	Nil	10,000	3,000,000	Nil	6,000,000	293
Ping An Health	e生保（保证续保版2020）	1	0-50	6 Years	10,000	2,000,000	Nil	4,000,000	364
PICC Health	好医保长期医疗2020	1	0-60	6 Years	10,000	2,000,000	Nil	4,000,000	259
Tk.cn	微医保长期医疗险	6	0-60	6 Years	10,000	2,000,000	Nil	4,000,000	405
Fosun United Health	超越保2020	1	0-60	6 Years	-	2,000,000	Nil	4,000,000	231
Jingdong Allianz	京彩一生	1	0-65	Nil	10,000	3,000,000	Nil	6,000,000	309

*Note: Estimated premium rate for 30-year-old non-smoking male with basic medical insurance

Source: Shenlanbao, Citi Research

Figure 117. Industry premium scale for mid-end medical policies (including 'million-dollar medical' policies) surged dramatically in 2016 and 2017

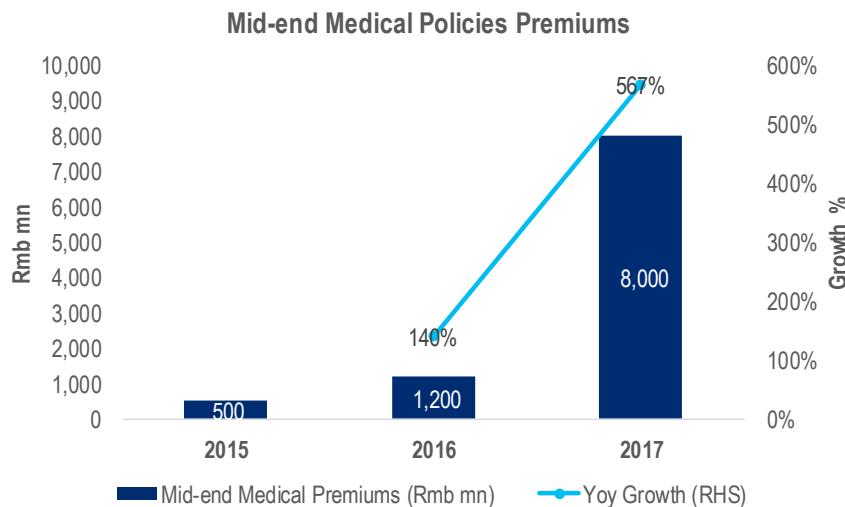
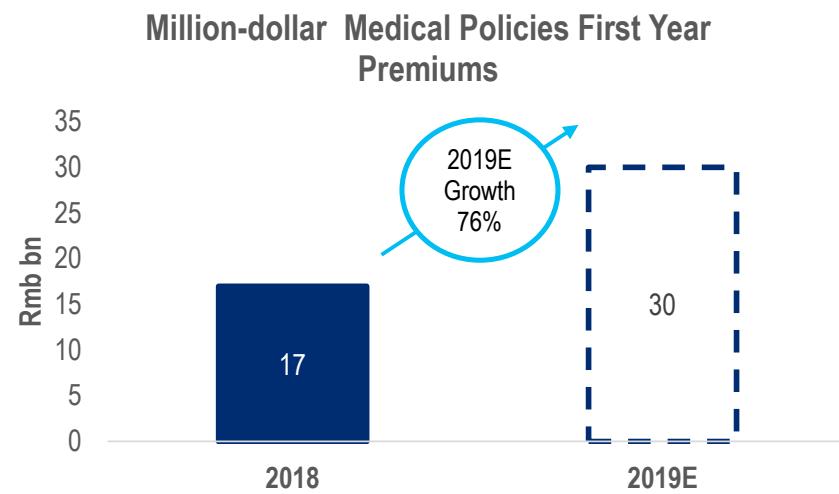


Figure 118. China Re estimated million-dollar medical policies to sustain momentum and register a 76% yoy FYP growth in 2019



Born with a Silver Spoon but Gradually Standing on Own Feet

With Alibaba, Tencent and Ping An as significant founding shareholders, ZhongAn leveraged on the shareholders' platforms at the beginning and resources to ramp up its presence. ZhongAn offers a series of scenario-based insurance products with its ecosystem partners. For example, the company's flagship health products Personal Clinic Policy series (including Hao Yi Bao) are offered via Alipay and iyunbao, while the company also worked with wearables manufacturers for its Walk to Wellness Policy. ZhongAn's second largest ecosystem Lifestyle Consumption also sits in the ecosystem of scenario partners. For example, ZhongAn's shipping return and merchant performance products are offered via e-commerce platforms including Taobao and AliExpress. Consumer Finance policies are offered via Internet Finance Platforms like X Financial, as well as telecom operators like China Telecom Bestpay, etc. ZhongAn coinsures its auto insurance with Ping An P&C, while travel policies are offered via online travel agencies like Trip.com.

ZhongAn leverages on its ecosystem partners' expertise and customer base to generate traffic. Through 2015-2019, ZhongAn's largest ecosystems by GWP were health and lifestyle consumption, which are both scenario-dependent businesses especially with Hao Yi Bao and shipping return policies. In 2016, 53% of ZhongAn's GWP was sourced through Alibaba and Ant Financial ecosystems, followed by 21% via Ctrip. Although the company no longer discloses the GWP breakdown by ecosystem partners, company disclosures show that ZhongAn continues to revise up its annual caps of connected transactions with partners. For example, the company's Ant Financial Online Platform Annual Cap was revised up in 2019 to cater to rising health and e-commerce insurance demand.

While ZhongAn's close cooperation with scenario partners vouches for notable traffic, we believe ZhongAn is on track to streamline and gradually stand on its own feet. The company is striving for and is confident to achieve underwriting breakeven in 2020, which seems to be on the right track as its combined ratio had been trending down from 2017-2019.

Major efforts made by the company include:

- **Reining in less profitable businesses** – ZhongAn has been containing businesses with higher costs, such as travel products with high channel fees and group health insurance. Accordingly, GWP contributed by the travel ecosystem registered an 11% decline in 2019. Given ZhongAn continues to exercise prudent cost and risk management pre-emptively, the company should see an improvement in profitability.
- **Increasing flows from proprietary platforms** – ZhongAn has increased investments in the development of its proprietary platforms since 2019, which yielded results quickly as GWP contribution from proprietary platforms rose to 7.6% of GWP (vs. 2% in 2018) in 2019. Notably, the contribution even surged to 24% for its flagship Personal Clinic Policy (from 8% in 2018). ZhongAn also started more user education via new means, including short video platforms such as Douyin and Kuaishou. We believe that this is beneficial for the company in the long run in terms of reducing channel fees, increasing customer stickiness as well as lessening reliance on scenario partners.
- **Improving technological application rates** – ZhongAn quoted an automation rate of underwriting and claims settlement services at 99% and 95% respectively. Since automation rates for different ecosystems vary, we believe that the

company could further streamline costs if it continues to work on the automation in the long run.

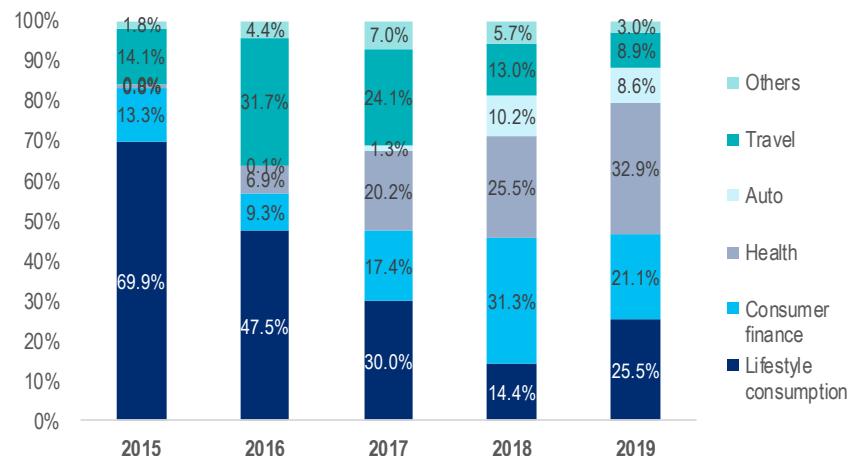
Figure 119. ZhongAn works with ecosystem partners for scenario-based insurance products

Ecosystem	Product	Partners	Nature of Partners
Health	Walk to Wellness Policy	Mi Band, Ledongli and Meizu	Wearables Manufacturers
	Personal Clinic Policy (尊享e生) / Hao Yi Bao (好醫保)	Alipay, iyunbao	Purchase Platforms
	Didi Automobile Owner Insurance Plan	Didi Chuxing	Scenario
Lifestyle Consumption	Shipping Return Policy	Taobao Marketplace, Tmall, Weidian, Xiaomi Pay	Scenario
	Overseas Customers Return Policy	AliExpress	Scenario
	Merchant Performance Bond Insurance (Zhong Le Bao / Can Ju Xian)	Taobao Marketplace, Tmall, Weidian, Xiaomi Pay	Scenario
Consumer Finance	Credit Guarantee Insurance	X Financial and Lexin	Scenario (Internet Finance Platforms)
	Credit Guarantee Insurance	China Telecom BestPay	Scenario (Telecom Operators)
	Credit Guarantee Insurance	Mogujie/Secoo	Scenario (e-commerce platforms)
Auto	Baobiao Auto Insurance	Ping An P&C	Coinurance
	Data Cube	Guazi, Maodou	Auto Retail Platforms
	Data Cube	Cango	
Travel	Flight Accident and Delay	Trip.com, Qunar.com, Tongcheng.com	Scenario

Source: Company Reports and Citi Research

Figure 120. ZhongAn's largest ecosystems by GWP are Health and Lifestyle Consumption, which are both dependent on Alibaba platforms

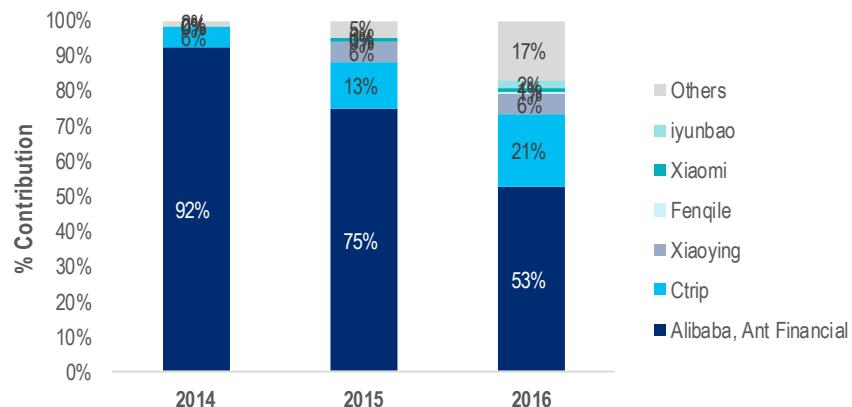
ZhongAn GWP Breakdown by Ecosystems



Source: Company Reports and Citi Research

Figure 121. More than half of ZhongAn's GWP was sourced through Alibaba ecosystems in 2016

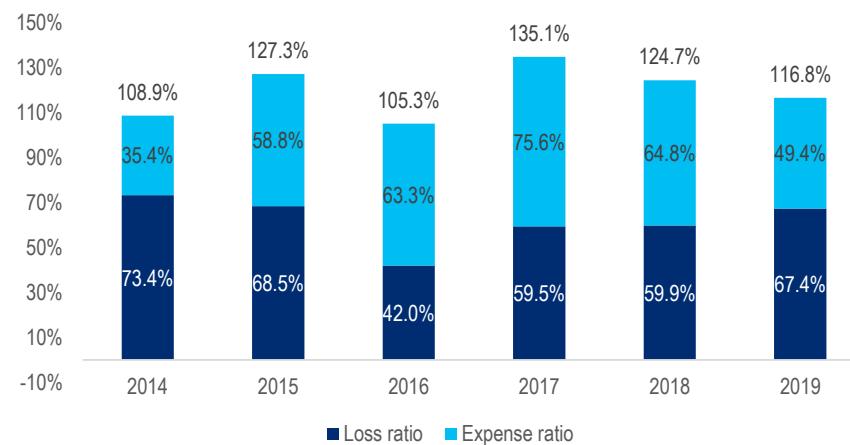
Gross Written Premiums Generated Through Ecosystem Partners



Source: Company Reports

Figure 122. ZhongAn has been improving its underwriting profitability over 2017-2019

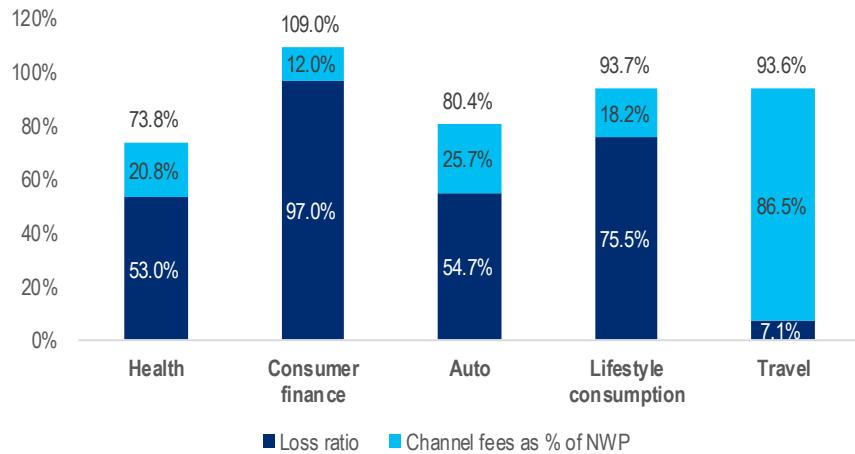
ZhongAn Combined Ratio (as % of NEP)



Source: Company Reports and Citi Research Estimates

Figure 123. Health and auto were the most profitable ecosystems for ZhongAn in 2019

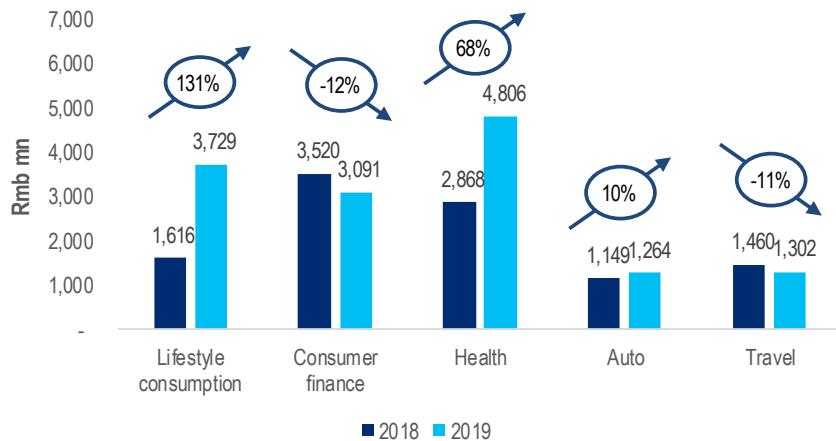
ZhongAn Combined Ratio by Ecosystem 2019



Source: Company Reports and Citi Research

Figure 124. ZhongAn to rein in high-cost travel and group health businesses

ZhongAn's GWP Growth by Ecosystem



Source: Company Reports and Citi Research

Extended addressable market with new ventures

ZhongAn has continuously ventured into new markets via technology exports and other subsidiaries, which we believe opens up an extended addressable market for the company. Moreover, the experience accumulated would enable ZhongAn to innovate quickly when the Chinese regulatory environment becomes more open.

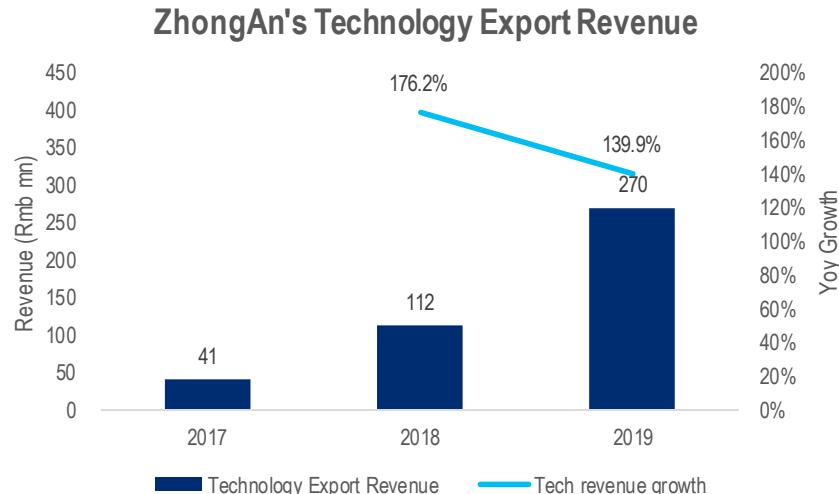
Leveraging on experiences with its own insurance systems and capabilities, ZhongAn exports its technology in the form of core systems and modules to other insurers. Although revenue from this segment is still relatively small compared to the company's GWP, income from technology exports more than doubled in both 2018 and 2019. Moreover, this segment helps ZhongAn to reach a wide network of corporate customers, totaling 260 contracted customers in 2019 (of which 36 were insurers). Clients include mid-sized and small insurers in China, SOMPO in Japan and even NTUC Income in Singapore.

Additionally, ZhongAn set up GrabInsure, a joint venture with Grab, to offer online insurance in Southeast Asia. The company also started supporting GrabInsure's introduction of usage-based auto insurance (UBI), which we believe would be helpful with ZhongAn's development of UBI in the domestic Chinese markets when regulatory restrictions are lifted.

ZhongAn also expanded into the Hong Kong market, claiming the spot of the first virtual bank in Hong Kong with ZA Bank in 2019. The company also received approvals recently and established virtual life insurer ZA Insure in Hong Kong. Both platforms offer affordable and accessible online-only services, which are deemed likely to attract a large pool of customers.

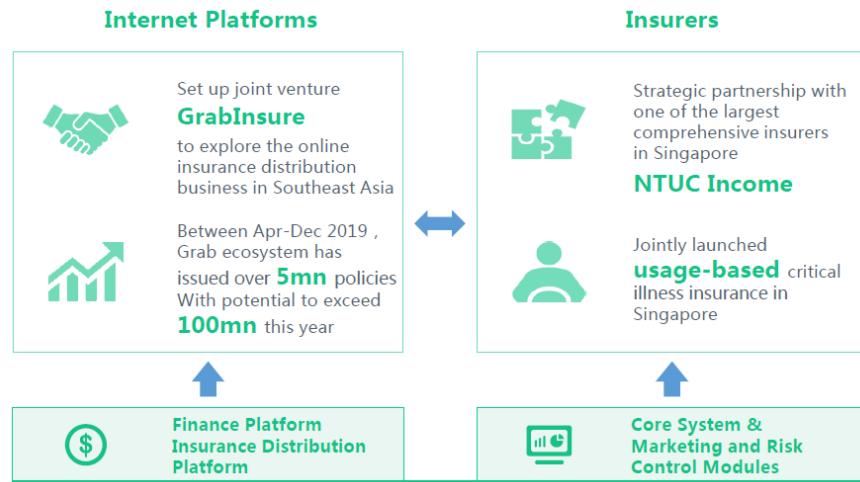
The company's Internet Hospital launched in late 2019 showed ZhongAn's determination to provide a full chain of healthcare services. Although mainly a supplement to the health insurance ecosystem for now, this could be a channel for more client acquisition as more clients become accustomed to telemedicine.

Figure 125. ZhongAn's technology export revenue more than doubled in 2018 and 2019



Source: Company Reports

Figure 126. ZhongAn exports technological capabilities via joint ventures and insurance systems to other markets



Source: Company Reports

Figure 127. ZhongAn exports InsurTech and sets out footprints globally



Source: Company Reports

SWOT Analysis

Figure 128. SWOT analysis for ZhongAn Online

SWOT analysis	
Strengths	Weaknesses
Second largest market share of 16% in Internet P&C Insurance in 2018	Reliance on online ecosystem partners for distribution
Established cooperation with renowned ecosystem partners in various scenarios	In certain ecosystems, lack of decision making power
Strong shareholder and founder background (e.g. Tencent, Alibaba, Ping An)	Yet to achieve underwriting profits and hence bottom-line more sensitive to investment incomes
Good branding as the only listed specialized Internet insurer	
Developed new revenue stream with technology exports to a scalable client base	
Pioneer in million-medical policy and developed flagship series 'Personal Clinic Policy series'	
Dedication to research and development allowing the company to develop capabilities in InsurTech	
Expanded market with ventures in Hong Kong and other overseas locations	
Highly-automated underwriting and claims settlement	
Opportunities	
Challenges and risks	
Innovative marketing with livestreaming and short video platforms may raise insurance awareness	Keener competition from other players (traditional and online-only insurers, Internet giants)
Further development of proprietary channels might help cutting costs	Challenges from offline agency model with the lack of offline presence
Introduction of innovative P&C products (e.g. UBI auto insurance) under relaxed regulatory backdrop	Potential mispricing for health products with lenient renewal requirements
Raising technological application rates may boost cost controls	Regulatory tightening on innovative marketing channels may curb proprietary channel growth
International ventures ramping up and contributing future profit streams	Relatively higher equity and investment funds allocation may expose ZhongAn to more equity market volatility
Standardization of technological platforms enabling more technology export to companies	Strategic shareholders might become competitors in the future

Source: Citi Research

Valuation

Our target price for ZhongAn of HK\$50.8 is based on DCF valuation. We project free cash flows up to 2029E followed by a terminal growth rate of 6.5%, discounted by a WACC of 11.1%. We derive ZhongAn's WACC using a 3.0% risk-free rate, a market risk premium of 6.0% and a beta of 1.35.

Figure 129. ZhongAn's Historical Forward Price/Book Ratio



Source: Thomson Reuters Datastream, Company Reports and Citi Research Estimates

Figure 130. Summary financials for ZhongAn Online P&C (Rmb mn)

	2015	2016	2017	2018	2019	2020E	2021E	2022E
Profit and loss								
Gross written premiums	2,283	3,408	5,954	11,256	14,630	16,624	19,369	22,671
Premiums ceded to reinsurers	10	40	249	463	234	411	494	592
Net written premiums	2,273	3,368	5,705	10,793	14,395	16,213	18,875	22,079
Increase in unearned premium reserves	351	143	1,091	1,993	1,594	0	944	1,104
Net earned premiums	1,921	3,225	4,614	8,800	12,801	16,213	17,932	20,975
Net claims incurred	1,316	1,355	2,746	5,268	8,625	8,820	10,171	12,079
Net change in insurance contract liabilities	139	22	433	793	590	778	861	1,007
Net claims paid	1,177	1,333	2,313	4,475	8,035	8,042	9,310	11,072
Handling charges and commissions	101	287	603	1,075	910	1,232	1,363	1,615
G&A expenses	1,030	1,754	2,886	4,627	5,417	6,113	6,984	7,718
Consulting fee and service charge	591	1,093	1,605	2,741	2,752	2,238	2,597	2,984
Employee benefit expense	186	303	622	840	950	1,093	1,256	1,445
Advertising cost	0	79	202	210	609	1,400	1,540	1,540
Other expenses	253	280	457	836	1,106	1,383	1,590	1,749
Memo: Channel fees	671	1,314	2,083	3,493	3,550	3,358	3,830	4,450
Underwriting profits	(525)	(171)	(1,620)	(2,170)	(2,150)	48	(586)	(437)
Investment income	561	140	838	621	1,946	951	1,507	1,581
Other income (incl. technology services)	27	47	131	189	377	272	327	395
Other expenses	0	3	205	413	630	882	971	1,068
Forex gains	0	0	(139)	(1)	2	2	2	2
Finance costs	3	0	4	43	111	194	194	214
Share of profits of associates	0	0	(3)	7	(44)	(22)	(22)	(22)
Pretax profit	60	13	(1,002)	(1,810)	(611)	173	64	237
Tax	15	4	(6)	(13)	28	0	0	0
Minority interests	0	0	1	(53)	(185)	(92)	(92)	(92)
Net profit	44	9	(997)	(1,744)	(454)	266	156	329
Balance sheet								
Investment assets	7,709	8,681	19,441	21,178	23,367	25,120	27,004	29,029
Premium receivables	112	174	524	2,037	3,532	4,014	4,676	5,474
Property, plant and equipment	15	54	85	107	91	91	91	91
Other assets	233	423	1,100	3,019	3,917	4,748	5,612	6,374
Total assets	8,069	9,332	21,149	26,341	30,908	33,972	37,383	40,968
Insurance contract liabilities	616	797	2,430	5,327	7,543	8,571	9,986	11,689
Reinsurance payables	6	34	248	355	218	248	289	338
Other liabilities	549	1,642	1,201	4,184	6,641	8,063	9,480	10,525
Total liabilities	1,171	2,473	3,879	9,866	14,402	16,882	19,755	22,551
Minority interests	0	0	144	1,043	1,594	1,913	2,295	2,754
Shareholders' equity	6,898	6,859	17,127	15,432	14,912	15,177	15,333	15,662
Total liabilities and equity	8,069	9,332	21,149	26,341	30,908	33,972	37,383	40,968
Growth								
Gross written premium growth	188%	49%	75%	89%	30%	14%	17%	17%
Net written premium growth	189%	48%	69%	89%	33%	13%	16%	17%
Net earned premium growth	170%	68%	43%	91%	45%	27%	11%	17%
Investment income growth	524%	-75%	496%	-26%	214%	-51%	58%	5%
Other income growth	73%	76%	181%	44%	99%	-28%	20%	21%
Net profit growth	20%	-79%	-10741%	75%	-74%	-158%	-41%	111%
Investment asset growth	498%	13%	124%	9%	10%	8%	8%	8%
Total asset growth	489%	16%	127%	25%	17%	10%	10%	10%
Shareholders' equity growth	576%	-1%	150%	-10%	-3%	2%	1%	2%
Key ratios								
Loss ratio	68.5%	42.0%	59.5%	59.9%	67.4%	54.4%	56.7%	57.6%
Expense ratio	58.8%	63.3%	75.6%	64.8%	49.4%	45.3%	46.5%	44.5%
Combined ratio	127.3%	105.3%	135.1%	124.7%	116.8%	99.7%	103.3%	102.1%
Investment yield	12.47%	1.71%	5.96%	3.06%	8.74%	3.92%	5.78%	5.64%
ROA	0.94%	0.11%	-6.54%	-7.34%	-1.59%	0.82%	0.44%	0.84%
ROE	1.12%	0.14%	-8.32%	-10.71%	-2.99%	1.77%	1.02%	2.13%

Source: Company Reports and Citi Research Estimates

Bull/Bear: ZhongAn Online P&C Insurance (6060.HK)

Bull/Bear: ZhongAn Online P&C Insurance (6060.HK)

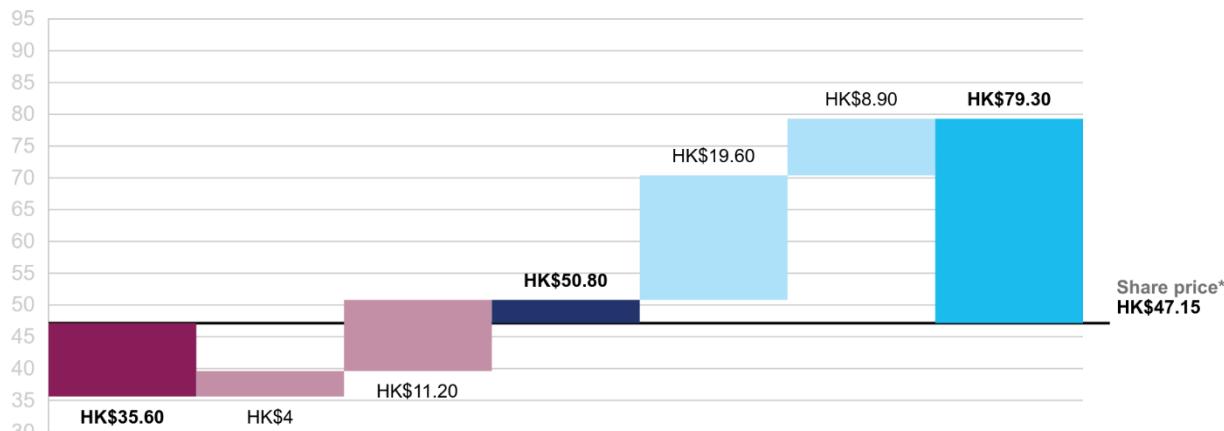


HK\$50.8 target price

8% expected share price return

Neutral/High Risk rating

92pp Bull/Bear Spread



WACC of 11.6%
(from 11.1%)
2020 - 22E loss
ratio of health
insurance at
40%



2020 - 22E loss
ratio of health
insurance at
30%



Source: Citi Research



*Share price as of 3 Jul 2020 16:10



Share price*
HK\$47.15



HK\$79.3

- 2020-22E loss ratio of health insurance at 30% (from 34%~36.5%) to reflect better-than-expected claims
- WACC of 10.6% (from 11.1%)



HK\$50.8

- 2020-22E loss ratio of health insurance of 34%~36.5%
- WACC of 11.1%



HK\$35.6

- WACC of 11.6% (from 11.1%)
- 2020-22E loss ratio of health insurance at 40% (from 34%~36.5%) to reflect mispricing

Risk Factors

- **Better-than-expected Internet insurance penetration** – ZhongAn may register better-than-expected revenue and profit growth under the robust development of online consumption and Internet insurance penetration.
- **Competition from other Internet insurance players** – ZhongAn faces keen competition in Internet P&C insurance, from other Internet insurers, well-capitalized traditional insurers and Internet giants. ZhongAn could face pressure on profits and market share if other players are more aggressive in their competitive strategies.
- **Profits under stress in case of product mispricing** – ZhongAn's profits could be under stress in the case of mispricing of products that offer renewals without verifications. If ZhongAn cannot successfully control costs and achieve underwriting breakeven, this could raise investors' concerns over the validity of ZhongAn's business model and long-term profitability.
- **Regulatory tightening on marketing channels** – ZhongAn has been turning to new marketing channels to direct traffic to its proprietary platforms. Regulators keep a close eye on insurance sales and marketing via livestreaming and short video platforms, hence ZhongAn could be adversely impacted if more stringent regulatory controls are imposed over these channels.

Appendix

Figure 131. Substantial Shareholders of ZhongAn Online P&C as of YE2019

Shareholder	Share class	YE2019	
		No. of shares (mn)	% stake
Ant Financial	Domestic	199.000	13.5391%
Tencent Computer System	Domestic	150.000	10.2054%
Ping An Insurance	Domestic	150.000	10.2054%
Shenzhen Jia De Xin Investment Limited	Domestic	140.000	9.5250%
Unifront Holding Limited	Domestic	90.000	6.1232%
Cnhooray Internet Technology Co. Ltd.	Domestic	81.000	5.5109%
Qingdao Huilijun Trading Company Limited	Domestic	50.000	3.4018%
Shanghai Yuanqiang Investment Company Limited	Domestic	50.000	3.4018%
Keywise ZA Investment	H Share	42.643	2.9012%
Softbank	H Share	71.910	4.8924%
Total		1,469.813	100.0000%

Source: Company Reports

ZhongAn Online P&C Insurance

Company description

Founded in 2013, ZhongAn Online P&C Insurance Co Ltd is the first specialized online insurer in China. The company had the second-largest online P&C market share at 16% in 2018. ZhongAn operates a dual-engine strategy of “Insurance + Technology” and its products cover five major ecosystems: health, consumer finance, auto, lifestyle consumption and travel. In 2019, ZhongAn served over 480 million customers with more than 8 billion insurance policies in total. The company ranked 11th by premium income in the domestic P&C insurance market in 2019.

Investment strategy

We rate ZhongAn at Neutral/High Risk (2H) with a target price of HK\$50.8. While we see ZhongAn as the best online insurer for its Internet-oriented operational mindset and quick self-evolving capabilities, the online P&C market is becoming over-crowded, especially after traditional insurers were forced to enter the segment due to COVID-19. While we expect more innovations by ZhongAn to again reshuffle the industry landscape, the stock looks fairly valued at current levels.

Valuation

Our target price for ZhongAn of HK\$50.8 is based on DCF valuation. We project free cash flows up to 2029E followed by a terminal growth rate of 6.5%, discounted by a WACC of 11.1%. We derive ZhongAn's WACC using a 3.0% risk-free rate, a market risk premium of 6.0% and a beta of 1.35.

Risks

We apply a default High Risk rating to ZhongAn based on the stock's volatility in the past 12 months. Downside risks that could mean the stock fails to achieve our target price include competition from other Internet insurance players; profits under stress in case of product mispricing; regulatory strengthening of marketing channels. Upside risks that could mean the stock exceeds our target price include; a market rally; better-than-expected investment performances; and better-than-expected Internet insurance penetration.

Appendix A-1

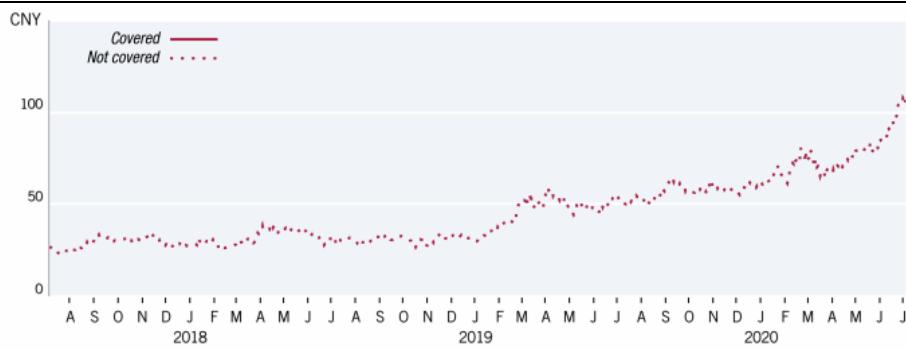
Analyst Certification

The research analysts primarily responsible for the preparation and content of this research report are either (i) designated by "AC" in the author block or (ii) listed in bold alongside content which is attributable to that analyst. If multiple AC analysts are designated in the author block, each analyst is certifying with respect to the entire research report other than (a) content attributable to another AC certifying analyst listed in bold alongside the content and (b) views expressed solely with respect to a specific issuer which are attributable to another AC certifying analyst identified in the price charts or rating history tables for that issuer shown below. Each of these analysts certify, with respect to the sections of the report for which they are responsible: (1) that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc. and its affiliates; and (2) no part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by that research analyst in this report.

IMPORTANT DISCLOSURES

Hundsun Technologies (600570.SS)

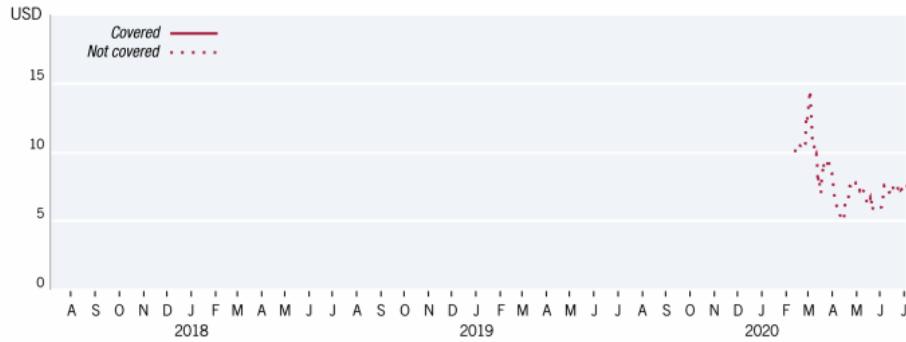
Ratings and Target Price History
Fundamental Research



*Indicates Change

Huize Holding Ltd (HUIZ)

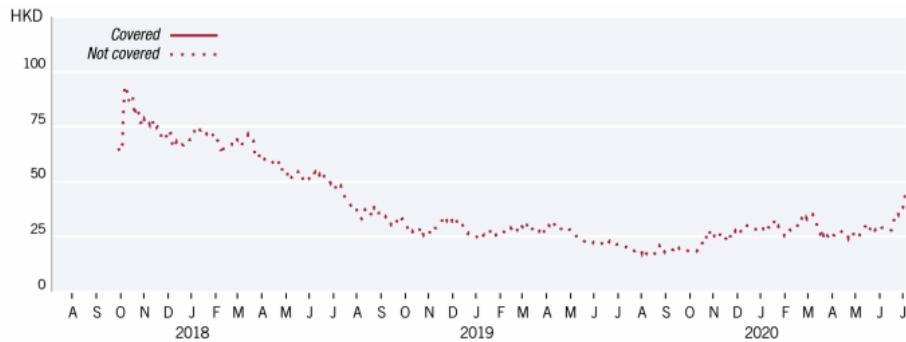
Ratings and Target Price History
Fundamental Research



*Indicates Change

ZhongAn Online P&C Insurance (6060.HK)

Ratings and Target Price History
Fundamental Research



*Indicates Change

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