亿欧 EqualOcean

WIM
WORLD INNOVATORS MEET

WIA WORLD INNOVATION AWARDS 2020

'Fintech: Reshaping Global Cooperation' Chapter

Next 50 in Global Tech: Fintech

Next Global Tech 50: Retail Trends and Startups 2020

December 9-11,2020.   equalocean.com

World Innovation Awards

World Innovation Awards (WIA) will present four series of research reports and lists on the global innovation highlights achieved by pioneering public/private enterprises, investment institutions, and entrepreneurs in 2020. The WIA reports and lists are affiliated to and will be released during the World Innovators Meet 2020, an annual gathering of global entrepreneurs hosted by EqualOcean.

2020 Next Global Tech 50

2020 Next Global Tech 50 is a series of research reports and lists on the new generation of private companies across several sectors around the globe. A total of 11 industries are discussed in the series, which have been developed through cutting-edge technologies and are likely to reshape the international economic landscape of tomorrow.

Find below the list of this year's reports and rankings

Public companies

China's TOP 50 Leading Public Firms 2020

China's TOP 10 Public Firms 2020
High-Tech, Consumer, Automotive, Industrials, Healthcare, Real estate, Financials, Communication

Private companies

New Tech Leaders 2020: Global 50

2020 Rising Tech Stars Global & China 100

2020 Next Global Tech 50
Artificial Intelligence, Semiconductors, Consumer Technology, Retail, Education, Automotive and Mobility, Enterprise Services, Smart Manufacturing, Healthcare, Real Estate, Fintech

Entrepreneurs

30 Technology Entrepreneurs in China 2020
Young-gen Tech Innovators
Science-entrepreneurs
Female Entrepreneurs
Artificial Intelligence Entrepreneurs
Foreign Entrepreneurs

Investment institutions

China's TOP 10 PE/VC Investment Institutions in 2020
Post-investment Service Provider, State-Affiliated Funds, Technology Investors, Consumer Investors, Automotive Investors, Industrials Investors, Healthcare Investors, Real Estate Investors, Financials Investors, Communication Investors

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INTRODUCTION

ABOUT THE REPORT

As the "main theme" of the financial industry's transformation and upgrading, “fintech" has shifted from technological innovation to large-scale application. The construction of financial infrastructure has also become the consensus of the financial industry of various countries, and the development of financial technology has entered the fast lane.

2020 is a particularly special year. The COVID-19 has had a profound impact on various industries, but it has also forced the digital transformation of various industries. The transformation of the financial industry and the “iteration” of fintech complement each other-technology empowers finance and financial services the real economy.

This report will focus on fintech innovation, analyzing the innovation opportunities and challenges in the seven sub-sectors of paytech, insurtech, wealth management technology, bank technology, risk management technology, micro technology, and new financial infrastructure.

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HIGHTLIGHTS

The COVID-19 has further accelerated the transformation of the financial industry, especially the transformation of traditional financial enterprises is imminent. Both the strategic application and use of fintech have shown substantial growth. In addition, from a global perspective, wealth management tech and insurtech have become the most prominent growth points in the segments.

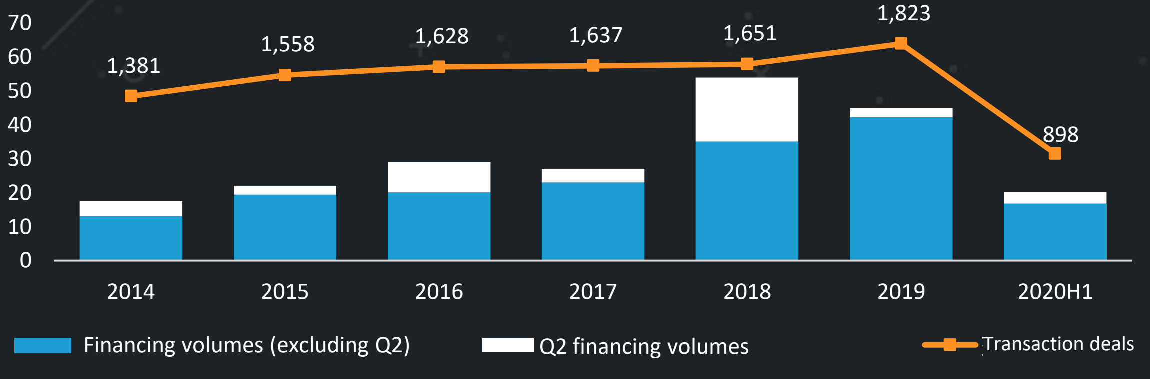
Global fintech adoption rate
64%

Financial institution's utilization rate of financial technology strategy
96%

Financing of insurtech in the second season increased rate
71%

Growth rate of total wealth management tech financing in the second quarter
184%

Fintech financing in 2014-2020H1 (VC/PE; US billion)



Overview of Fintech Industry

Development History of Fintech

Finance and technology are always parallel. First cable across the ocean means start of Fintech 1.0. In addition, the combination of finance and technology made financial globalization enter a new stage.

The first ATM machine was used in Barclays Bank in 1967. And then tellers and branches were replaced. This event led the new stage - Fintech 2.0, which was the beginning of modern fintech. **Computer and Internet were widely used to promote the online banking of banks globally. Since then, the combination of finance and technology had been closer.**

Financial crisis in 2008 hit the banks hard. Therefore, banks tried to find ways to transform using technology. At that time, startups were emerging in the financial markets, which means the beginning of Fintech 3.0.

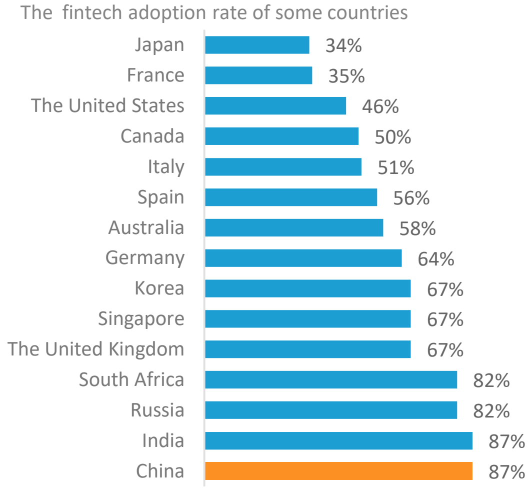
In 2009, the blockchain represented by bitcoin entered the public eyes. And the blockchain laid the foundation of different cryptocurrencies in the later period. **The development of fintech was mainly steamed from the strong demand and birth of fintech companies emerged at this stage with the wave of mobile internet.**

At present, the market of global fintech is still at the stage of Fintech 3.0. However, some countries already entered stage of Fintech 3.5 based on different support of policies. AI, blockchain, clouding calculation and data are four underlying technologies in this stage, which help traditional finance to improve the efficiency of financial service. **At this stage, core drive of fintech development is solving long-term problems of financial industry with technology.**

Definition of Fintech Concept

The Financial Stability Board defines Fintech as " Technology-enabled innovation in financial services that could result in new business models, applications, processes or products with an associated material effect on the provision of financial services". This report researches the companies with technological solution as the main fintech innovators.

The adoption of fintech in the world



Source: EY, EqualOcean analysis

According to the data of EY, **the adoption rate had grown rapidly from 16% in 2015 to 64% in 2019.** And the adoption rate of developing countries is commonly higher than developed countries. In addition, China and India are two countries with the highest adoption rate. **China have already 87% fintech adoption.**

Distinguish Chinese concepts related fintech

Fintech

- Fintech means that technology empowers finance to improve the efficiency of financial service based on front-end technology.
- **The main participants are technology-driven enterprises, that provide technical solution.**

Technology Finance

- Technology finance is based in finance, which is financial innovation service technology. Traditional finance companies innovate business with technology.
- **The main participate are traditional finance and internet finance companies.**

Internet Finance

- The essence of internet finance is financial form. And the internet is a channel to expand customers for financial enterprises.
- **In other word, internet finance is one of format for finance.**

Technology Empower Finance, and Finance Service Entities

Fintech ecosystem

Fintech ecosystem includes technical support providers, financial technology solution provider, fintech users, regulatory authorities and consumers.

Fintech enterprises is the core participant of financial technology solution provider. They mainly provide technology solution to fintech users. Moreover, both technology regulatory authorities and finance regulatory authorities supervise the enterprises in fintech ecosystem.

Four core technologies

With importance of technology increasing, technology became the main element for development of financial industry. **The applications of fintech have become the core competitiveness of the survival of traditional finance institution.** Furthermore, the in-depth application of four core technologies help financial institution to upgrade their business.

- Artificial intelligence

AI, as a driving fundamental technological change, spawned intelligent products, such as smart payment.

- Blockchain

Blockchain has function of controlling data integrity and eliminating data silos. **It is used in a lots of fields, such as cryptocurrency and supply chain finance.**

- Clouding calculation

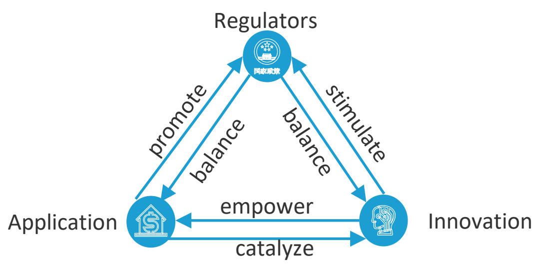
The main uses of clouding calculation are agile deployment and IT infrastructure. Clouding calculation has some advantages, like resource integration, to deal traditional finance industry problem, such as information collection and low processing efficiency.

- Data

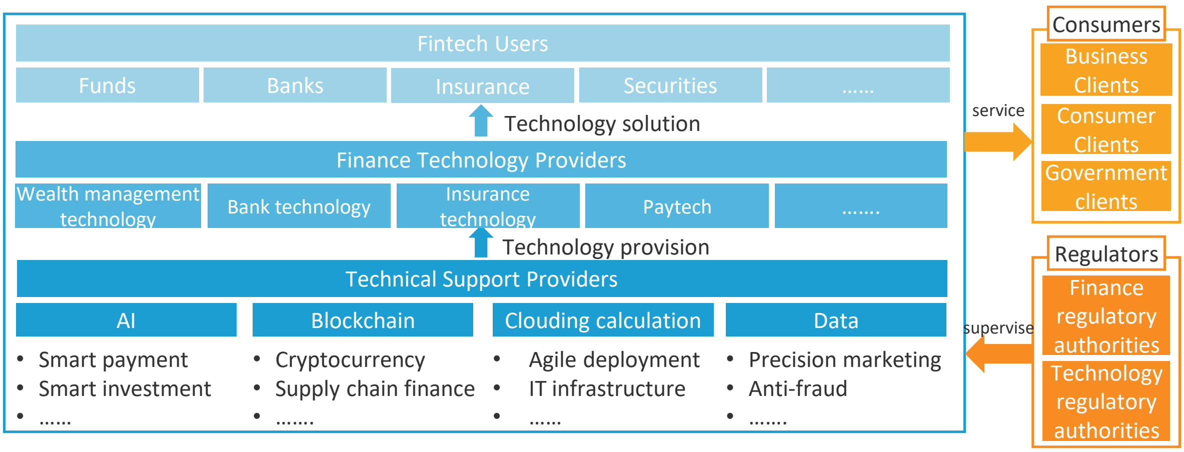
The deeply combination of data and finance industry helps financial enterprises to build precise personas. And then it can increase the marketing accuracy and differentiation. In addition, data plays a vital role in applications of anti-fraud.

Fintech and regulation need to develop together

While fintech helps finance industry to improve the efficiency of service, it also brings new challenges to regulation. If technological innovation is prior to regulation, risk in the financial markets will face spillover effects. **Regulation needs to strength comprehensive supervision and develop together with fintech. Then regulation need to balance the innovation of fintech and security of financial markets.**



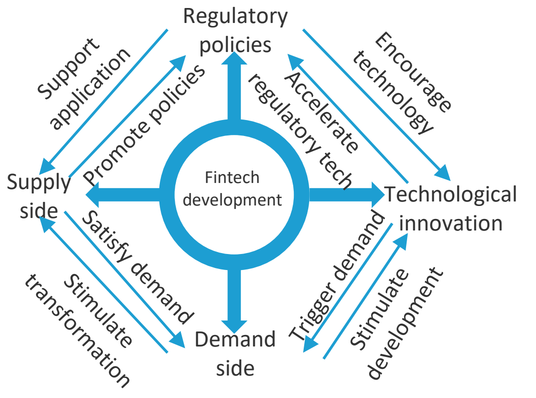
Fintech Ecosystem



Source: EqualOcean analysis

Four Elements Jointly Promote Development of Fintech

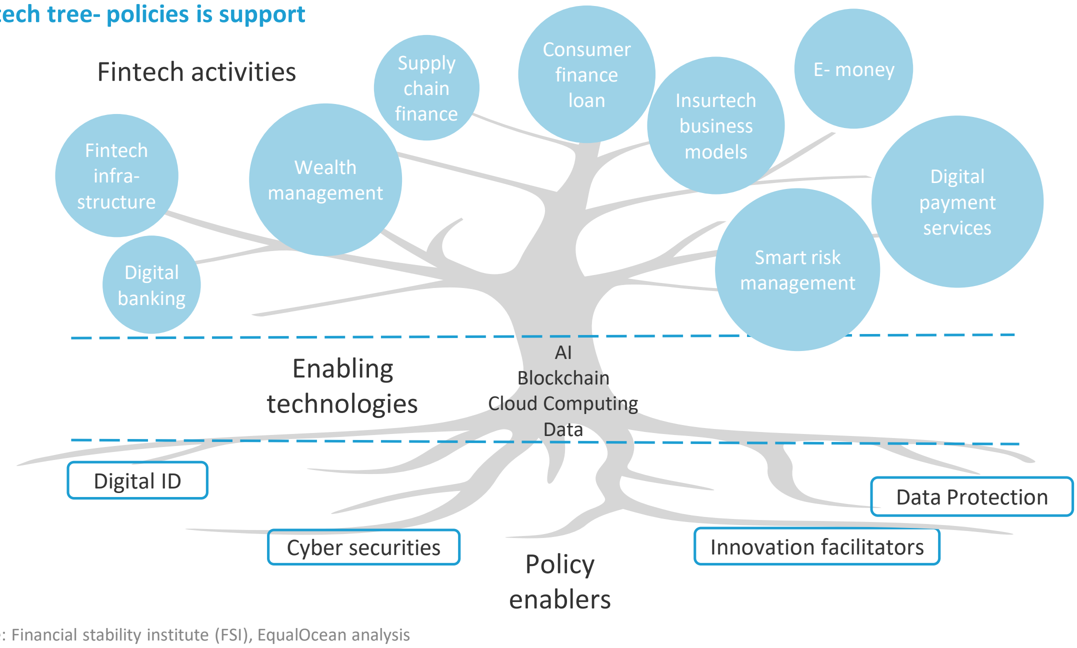
Fintech ecosystem



The development of fintech is influenced by regulatory policies, technological innovation, consumer side and demand side. Four elements complement each other and power the growth of global fintech.

The technological development triggers high quality demand from consumers. At the same time, different policies and regulates promote technological innovation, and balance efficiency and risk of financial service.

Fintech tree- policies is support



Source: Financial stability institute (FSI), EqualOcean analysis

Regulatory policies- balance risk and innovation

The "Fintech tree" concept is that policies are the most important driving factor for development of fintech. **In 2020, a lot of countries introduces policies related to fintech:**

- United States: In May 2020, Advancing Blockchain Act was introduced Singapore: In August 2020, Financial Sector Technology and Innovation (FSTI) 2.0 would be started up in December.
- India: In January 2020, the Reserve Bank of India (RBI) released the National Strategy for Financial Inclusion 2019-2024.
- China: In July 2020, China Banking and Insurance Regulatory Commission announced Interim Measures for the Administration of Internet Loans of Commercial Banks.

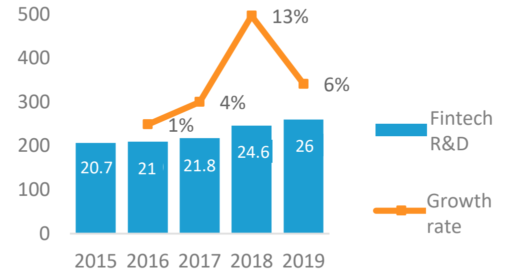
Technological innovation- support fintech

The expansion of blockchain encryption methods strengthens the security, and can expand the amount of storage on the chain. Blockchain-enabled digital currency is subverting traditional currencies.

Four Elements Jointly Promote Development of Fintech

Supply side – try to transform and upgrade

Fintech R&D of Global leading fintech institutions , in USD billion



Note: data comes from the financial reports of eight leading financial institutions, including Goldman Sachs

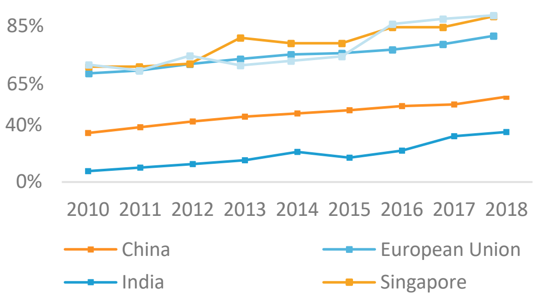
Source: China Academy of Information and Communications Technology, EqualOcean analysis

The traditional financial institutions are the main financial services suppliers. And R&D of traditional financial institutions is increased year by year.

Survey of PwC shows that **96% of the surveyed institutions have adopted fintech as their development strategy, and 50% of surveyed institutions have fully integrated fintech into their strategy.**

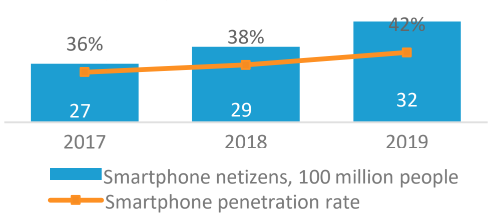
Supply side – satisfy the demand

Internet penetration rate



Source: World Bank, EqualOcean analysis

Global smartphone penetration rate

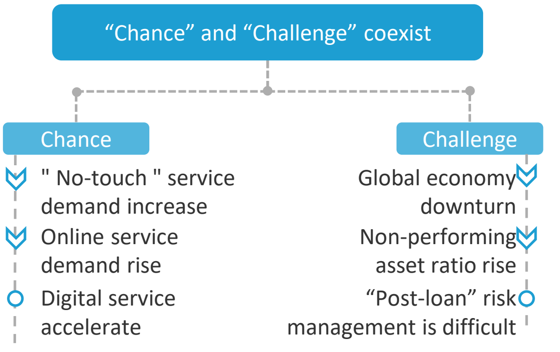


Source: NewZoo; World Bank, EqualOcean analysis

With the increase in the penetration rate of internet and smartphone, both consumer and business customers seek more convenient financial services, and the demand for mobile services is increasing.

Therefore, increasing demand accelerates the transformation speed.

Fintech under COVID-19



- The prevalence of the " no-touch " concept has accelerated the digital transformation of the traditional financial industry.
- During the COVID-19, Banking and Insurance Regulatory Commission issued the "Notice of the General Office of the China Banking and Insurance Regulatory Commission on Further Improving Financial Services for Epidemic Prevention and Control" to encourage banks to expand online channels and strengthen their management and protection.

Chinese fintech under COVID-19

Data related to digital services in China

During COVID-19	The first season in 2020	
96%	18.95%	4.84%
Average service replacement rate of online trade of each banking institution	The year-on-year growth rate of phone payment	The year-on-year growth rate of mobile payment business

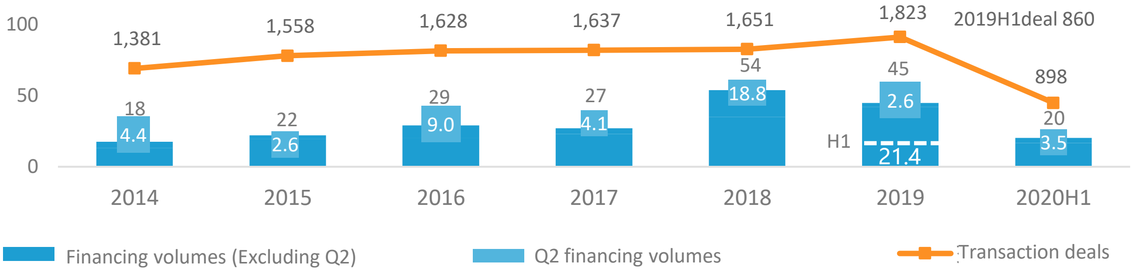
Source: China Banking Association, The People's Bank Of China, EqualOcean analysis

COVID-19 caused some small and micro enterprises to have difficulty in capital turnover, which has led to a increase in bad debts and a decline in repayment ability. The high demand for risk management by financial institutions creates chances for fintech companies.

Status of Fintech Investment

In 2020, the total amount of fintech financing will remain stable

Fintech financing in 2014-2020H1 (VC/PE; US billion)

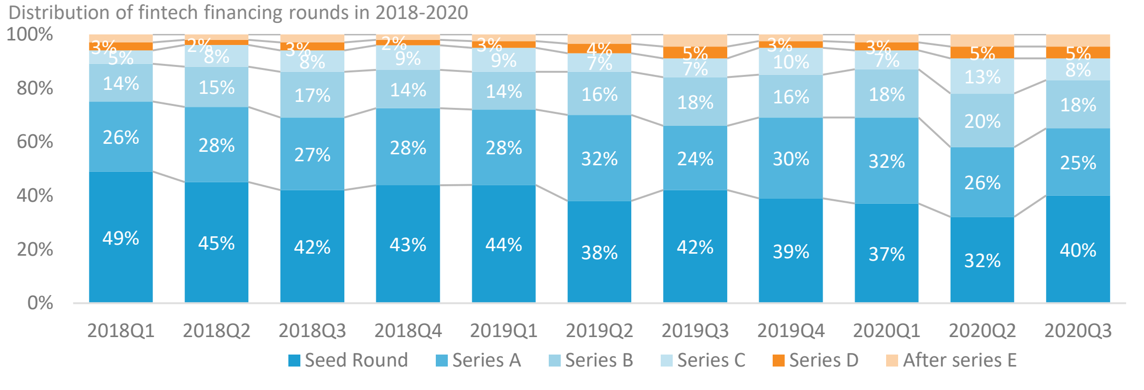


Source: FT partners; EqualOcean analysis

With the influence of COVID19, the total financing amount decreased in the first half year of 2020, which fell by 7% year-on-year. However, **the transaction deals increased by 4% year-on-year**. Therefore, in the first half-year of 2020, the fintech sector is diversified, and the total amount of single financing has declined.

The ratio of financing amount on series B-D is increasing year-by-year

Distribution of fintech financing rounds in 2018-2020

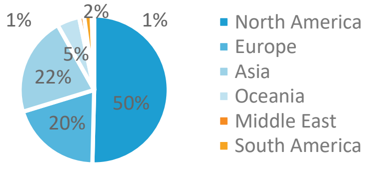


Source: CB insights, EqualOcean analysis

During the first three quarters of 2020, the total financing amount of seed round and series A had declined, which means that investment institutions tend to invest innovator after series B. **Based on calculation of CB Insights, the financing amount of series B to D accounted for 32%, which increased by 5% year-on-year.**

North America is a region with the most financing amount

Regional distribution of financing in 2020 (Calculated by financing amount, as of September 2020)



Source: FT partners, EqualOcean analysis

North America leads the financing amount with 50% shared, and Asia is the second region with 22% of total financing amount.

As CB Insights shows, from January to June 2020, the total number of transactions of US fintech with single financing of US$200 million and above accounted for **60%** of the number of transactions. What is more, the fintech financing amount in China, decreased by 82% year-on-year in the first half of 2020 based on KPMG. (VC, PE and M&A)

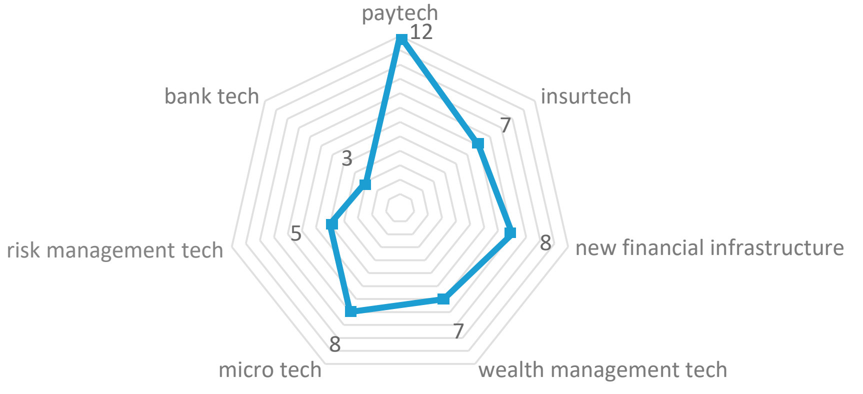
Next 50 in Global Tech: Fintech

The global fintech list selects 50 well-developed global fintech innovators to form dimensions of valuation, financing, establish time, primary strategy and product or model innovation in 2020 (the following companies are in alphabetical order)

Next 50 in global tech figure: Fintech

Next 50 in Global Fintech List

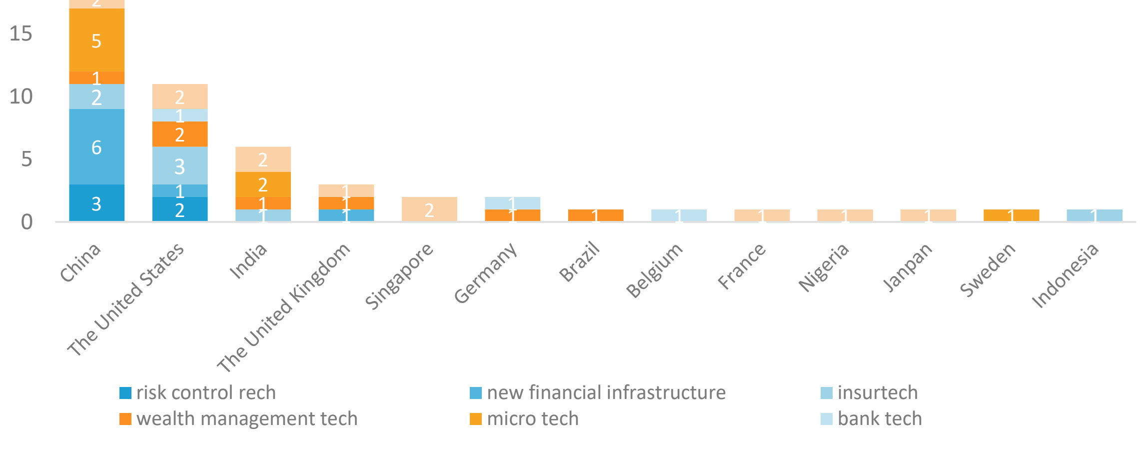
Distribution of segments for global next 50 tech: Fintech



Source: EqualOcean analysis

The shortlisted companies unevenly distribute to seven segments. Among them, paytech innovators are still the most focused segment of capital, and 24% of companies are mainly engaged in paytech. Secondly, as the bottom link of all financial activities, the number of new financial infrastructure innovators is the second. Also, insurtech, as the most attracted industry during COVID-19, has seven innovators on the list.

Regional distribution for global next 50 tech: Fintech



Source: EqualOcean analysis

From the distribution of region, 50 fintech innovators distribute in different countries. And with the highest fintech adoption rate, **China ranked first in the global next 50 fintech.** Among them, Asia has the greatest number of shortlisted companies.

Then, the number of American innovators is the second with 11 companies. In addition, there are six companies shortlisted in India because of the high fintech adoption rate.

From China, as a crucial technological solution, six new financial infrastructure innovators are on the list. And five micro tech innovators are shortlisted.

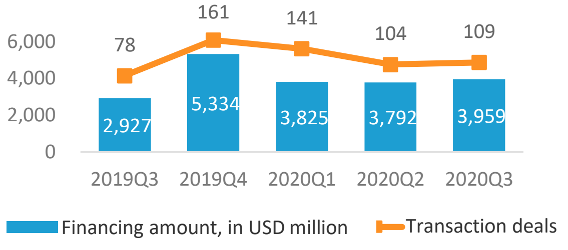
Among the paytech finalists, the United States, Singapore, and India each have two selected innovators.

The selected banking technology companies are in the United States, Germany and Belgium.

Paytech "Reshaping"

Paytech continues to attract attention

Financing of paytech innovators (VC-backed)



Source: CB Insights, EqualOcean analysis

Paytech is continuing attracted attention to capital because of high potential and fierce competition. According to McKinsey's prediction, digital payment would occupy 60% of digital business market in 2023.

In 2020, financing of paytech is relatively smooth. In the third quarter of 2020, financing amount of VC-backed has increased by 35%.

Why is paytech concerned by capital?

Paytech demand

B **Business - Air Travel Enterprise**

Paytech helps the traditional enterprise to digital transformation to increase user stickiness

B **Business- New Retailer**

Paytech satisfies the digital upgrade for offline retail stores.

C **Consumers**

Based on the blessing of 3D sensing, biometrics and other technologies, more convenient and safe payment methods are continuously upgraded to meet the needs of consumers.

Why is paytech concerned by capital?

Influenced by COVID-19, globally total payment amount has been decreasing. According to McKinsey predicted, total average payment amount will decline by 7% in 2020. However, the ratio of digital payment raised dramatically.

Digitization will permeate the payment service of various enterprises. Under the trend of payment digitization, paytech may usher in tremendous opportunities soon.

Digital currencies- strong development

The technological innovation of blockchain is closely related to the application of digital currency.

Recently, blockchain technology, as the underlying support of digital currency, had attracted worldwide attention. According to China Academy of Information and Communications Technology, there are 2,450 companies engaged in blockchain development around the world.

In 2020, lots of rational government continue to promote digital currency:

- In May 2020, China tested digital currency in a lot of cities.
- In March 2020, the bank of England published a report named Central Bank Digital Currency: opportunities, challenges and design.

Cross-border paytech – spring up

Business is the main customer of cross-border paytech.

Global cross-border payments accounted for the proportion of total global payments in 2019

Source: McKinsey, EqualOcean analysis

According to McKinsey calculated, the main customer of cross-border payment are businesses. In addition, the retail cross-border payment was affected by the exiting restrictions under the COVID-19. And cross-border payment at the business had become the focus of the paytech.

X Transfer is an innovator to provide a cross-border payment solutions for businesses. And it received the investment from Telstra Venture in October 2020.

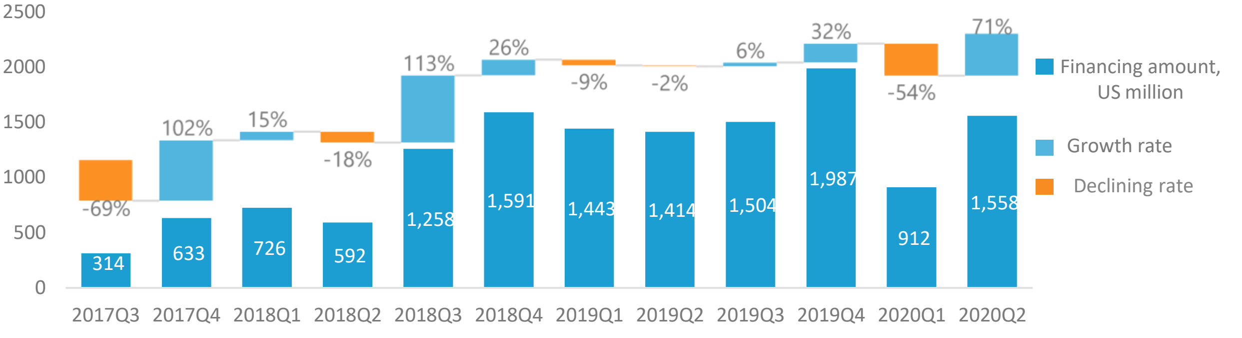
B2B paytech – chance in COVID-19

Since the outbreak, the number of sellers on e-commerce platforms such as eBay in the US have increased by 70%-150%, according to McKinsey, leading to unprecedented digital cross-regional trade of small businesses and transformation willingness.

Insurtech "Intelligent Acceleration"

After a drop in Q1, the total amount of insurtech financing rebounded in Q2

Financing amount and growth rate of insurtech in 2017Q3 to 2020Q2

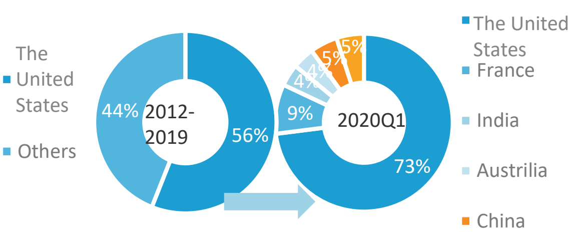


Source: Willis Towers Watson; CB Insights, EqualOcean analysis

According to Willis Towers Watson, financing of fintech decreased by 37% year on year. And relying on the strong demand for online trends for customers and needs for digital transformation, the amount of insurtech financing quickly recovered in 2020 Q2, which was the highest level during the second quarter of the previous year.

The US leads R&D investment in insurance, by deals

Private technology investments by insurers by target country



Source: Willis Towers Watson, EqualOcean analysis

In the 2020Q1, **R&D investment of the US insurance industry accounted for 73% globally.** The US has the highest investment and has been increasing year by year. **R&D investment in the Chinese insurance industry only accounted for 5%.**

Insurtech promotes the diversified development insurance companies

Under the COVID-19, the personal insurance of heavy offline channels had been adversely affected. Group insurance of heavy online channels had become the focus of insurance companies, and the attention of group insurance had increased.

Insgeek serves group insurance with the technological innovation.

Online customers accelerate the digitalization of insurance companies

The COVID-19 had led to an increase in online customer demand. And policies encourage online development of the insurance industry.

With the increasing demand for the online customers, online business had become a transformation strategy for insurance companies to compete.

Increased demand for smart investment for insurance industry

The increase in non-contact awareness has led to a decrease in person-to-person contact.

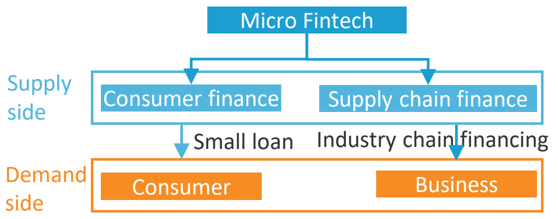
Life insurance sales rely heavily on the communication between the agent and the customer. As a result, life insurance premiums declined.

Major traditional insurance companies have been actively engaged in model innovation and product innovation to attract individual insurance customers.

The COVID-19 has forced insurance companies to transform, further increasing the demand for insurance technology.

Micro Technology "Expected Future"

Micro fintech helps both business and consumers



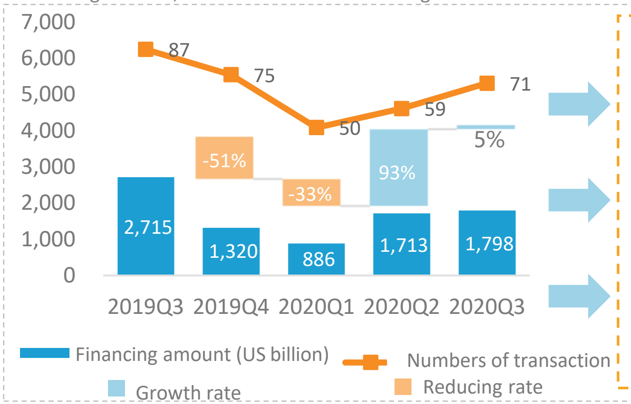
Micro finance mainly refers to activities that provide a small amount of sustainable financial products and services to small and micro or low- and middle-income groups.

EqualOcean believes that there are two demand sides of micro finance: Small and micro businesses ; low and middle- income consumers-. And the supply side is the company providing financial products and services.

Among this, consumer is main customer of consumer finance, which is a modern financial service to provide customers with consumer loans based on different consumption scenarios. And supply chain finance refers to connecting core companies with their upstream and downstream. And it provides financing products and services to small and micro enterprises.

Financing amount of micro technology decreased dramatically

Financing amount, number of transaction and growth rate of micro technology during 2019Q3 to 2020Q3 (VC-backed)



- Due to COVID-19, the financing amount is declined during 1Q 2020.
- Compare to the 1Q 2020, financing amount increased by 93%, and numbers of transactions increased by 18%, during 2Q 2020。
- The investment of micro technology gradually returned to a stable state in 2020Q3. Compared with the second quater, the total financing amount increased by 5%

Source: Willis Towers Watson, EqualOcean analysis

Blockchain empowers supply chain finance to a new wave

Traditional supply chains faced problems, such as information islands and default risks. Therefore, as a core technology, blockchain empowers every enterprise in the supply chain and solves small and medium enterprises' difficulties.

However, the implementation of supply chain fintech is not ideal. It is an early stage. Upgrade of supply chain fintech would become a new frontier of fintech industry.

Linklogis, as a shortlisted company, focuses on the use of four core technologies to apply in supply chain finance. It provides a lot of supply chain finance solutions. And Linklogis received investment from Standard Chartered Bank in January 2020.

Consumer finance- actively explore emerging scenarios.

Traditional consumer finance faced problems, such as the high cost of risk management. Fintech enterprises empower consumer finance to develop emerging scenarios.

Consumers have a high demand for diversified scenarios, and the new scenarios have become one of the core of corporate competition.

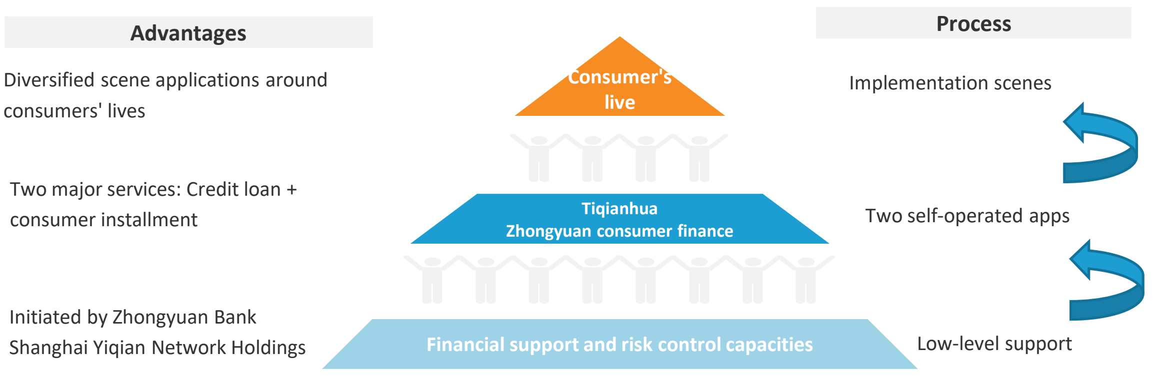
Classification of Chinese consumer financial companies

- banks
- Licensed consumer financial institution
- Internet consumer finance platform

Zhongyuan Consumer Finance Case Study

Overview

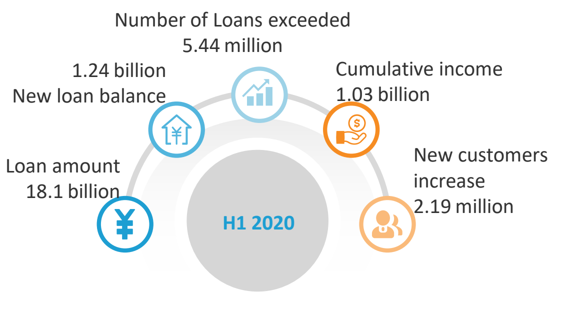
- Founded in 2016, Zhongyuan Consumer Finance is the first consumer finance company in Henan initiated by Zhongyuan Bank and Shanghai Yiqian Network and approved by the China Banking and Insurance Regulatory Commission.
- The development concept of Zhongyuan Consumer Finance is "compliance first, risk prevention and control, and technology-driven". Zhongyuan Consumer Finance provides consumers service around scenarios that are closely related to consumers such as "clothing, food, housing, transportation, and use". And it provides credit loans and consumer installment services to build a consumer financial ecosystem, and to practice "inclusive finance" with practical actions.



Core business indicators

- Since its establishment, Zhongyuan Consumer Finance has won the trust of consumers.
- As of June 30, 2020, Zhongyuan Consumer Finance's cumulative loan amount reached CNY 72.29 billion.
- Zhongyuan Consumer Finance's accumulated number of loans have exceeded 18.63 million.
- Zhongyuan Consumer Finance provided consumer finance to 7.75 million customers.

Performance in the first half of 2020, RMB

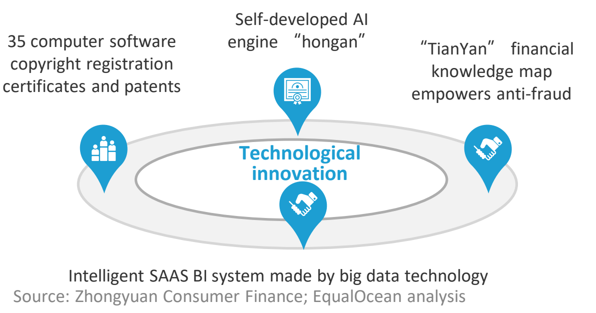


Source: Zhongyuan Consumer Finance; EqualOcean analysis

Innovation value

- Zhongyuan Consumer Finance breaks the time and geographical restrictions of traditional financial services with the characteristics of "small and decentralized", and can easily and safely cover consumers in all regions.
- All activities of Zhongyuan Consumer Finance come from online, solving the problem of "financial exclusion" in the traditional financial industry. The innovative value of Zhongyuan Consumer Finance comes from the continuous innovation of the underlying technology.

Achievements



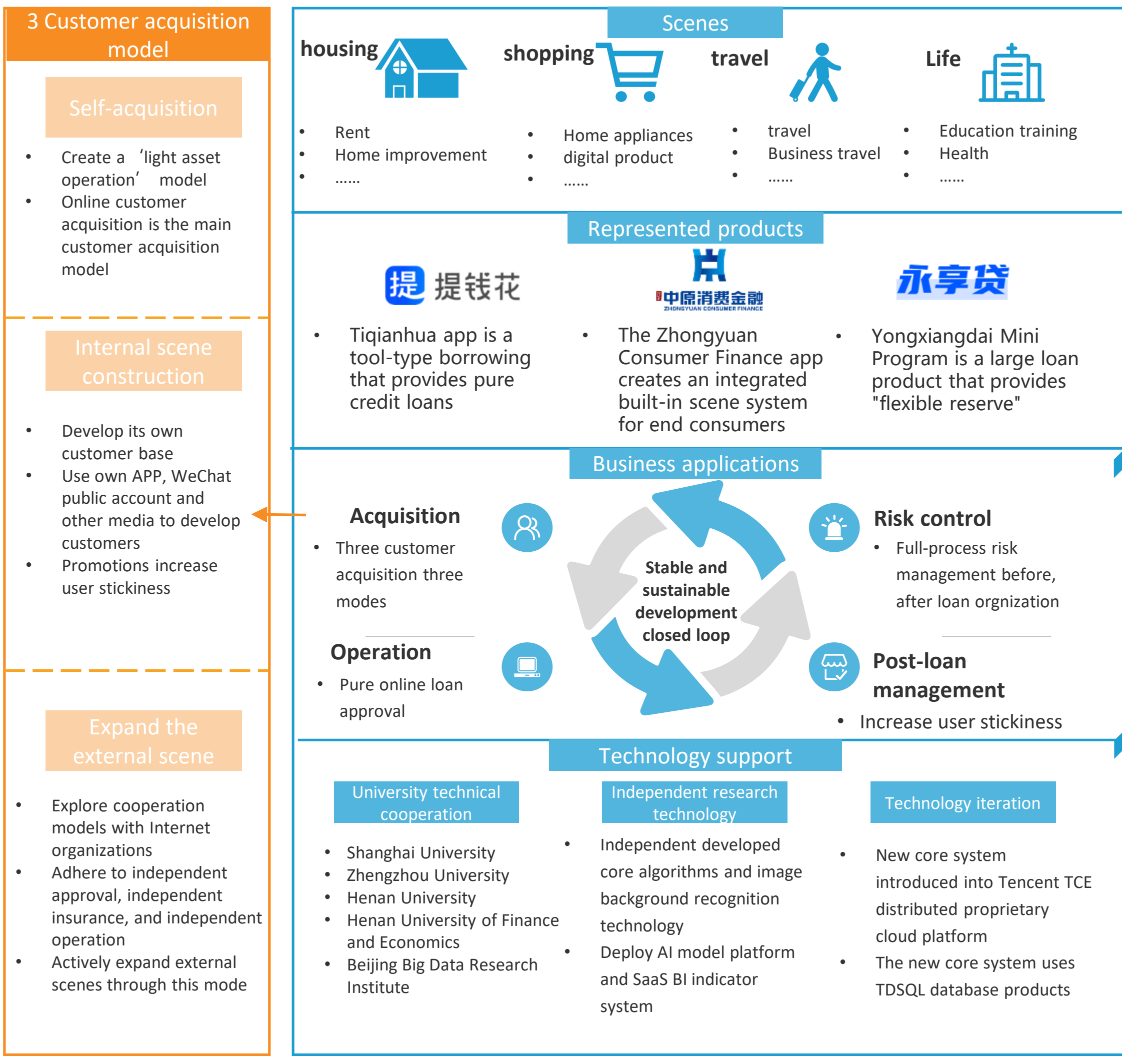
Source: Zhongyuan Consumer Finance; EqualOcean analysis

Zhongyuan Consumer Finance Case Study

Innovative business model

➢ Zhongyuan Consumer Finance relies on strong funds and an excellent technical team to independently develop self-use systems and related technologies, and continue to promote the iterative update of its technology.

➢ Zhongyuan Consumer Finance uses technology to build a stable and sustainable closed-loop development, and uses three customer acquisition models to implement major products in consumption scenarios that are closely related to life, and provide consumers with efficient, transparent, convenient and affordable consumer financial services.



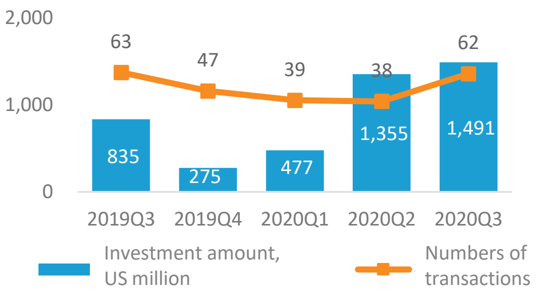
Business challenges

➢ Consumer finance needs to rely on consumers' high-credit operations. However, during the period of COVID-19, the People's Bank of China disclosed data that the overdue loan rate during the third quarter of 2020 increased by 6.13% from the previous quater. Zhongyuan Consumer Finance needs to accelerate the iterative speed of risk control technology to meet challenges such as the increase in overdue loan rates.

Wealth Management Technology and Bank Technology "Precise Force"

Financing amount on wealth management technology has been increasing steadily

Financing amount number of transaction of wealth management technology in 2019Q3 to 2020Q3 (VC-backed)



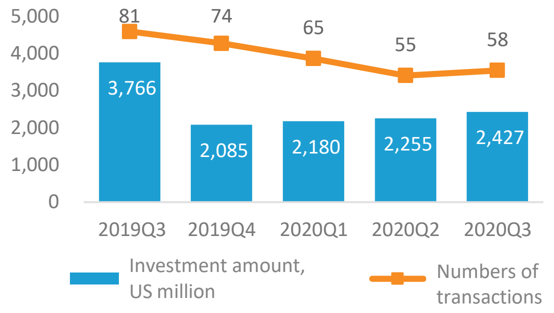
Source: CB Insights, EqualOcean analysis

From data of CB Insights, wealth management technology was not influenced by COVID-19.

Financing amount of wealth management technology has increased significantly, which increased by 79% year-on-year in 2020Q3.

Bank technology fever has not abated

Financing amount、 number of transaction of bank technology in 2019Q3 to 2020Q3 (VC-backed)

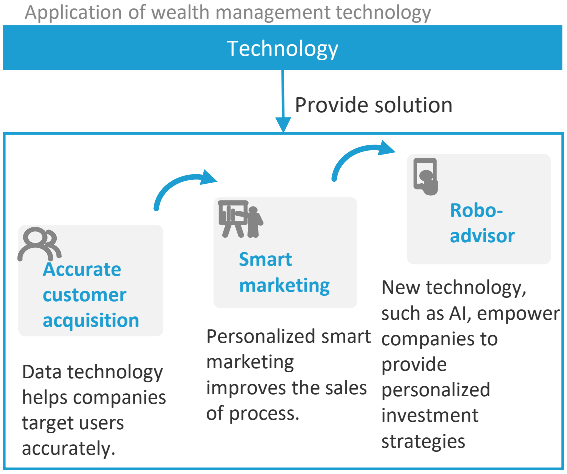


Source: CB Insights, EqualOcean analysis

From 2019Q4, financing amount of bank tech shows an increasing trend. Compared with 2020Q2, the financing amount of bank technology increased by 7.6%. However, the numbers of transactions show a declining trend. Therefore, investments in bank technology are relatively concentrated.

Wealth management technology empowers differentiation service

Application of wealth management technology

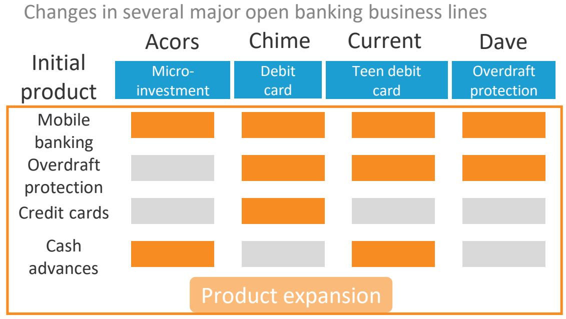


Source: Public resources, EqualOcean analysis

Using new technologies, such as AI, clouding calculation, data and blockchain, Wealth management technology empowe4 wealth management companies in all channels before, during and after investment. Therefore it solve problem of high manual sales costs and low efficiency for traditional companies.

Business of opening bank is more diversified

Changes in several major open banking business lines



Note: Orange represents business involved, gray represents no business involved
Source: CB Insights, EqualOcean analysis

Based on promotion of different policies and technology, opening bank is the attractive trend.

Under the influence of COVID-19, online banking and opening banking are popular with consumers. **Diversified business is strategy of lots of opening banks recently.**

Current is a opening bank to provide financial service for person. And it received investment in October 2019. In addition, Penta is a Germany opening bank to provide financial service to small companies.

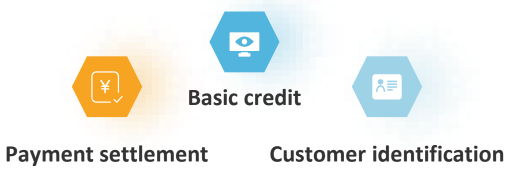
Financial Infrastructure “Replaces the Old with the New.“ Risk Management Technology Becomes the Top Priority

New financial infrastructure is the basic link of digitalization

In 2020, the COVID-19 is forcing change in the financial industry, and financial institutions urgently transform to digitalization. Therefore, new financial infrastructure became the basis for digital transformation.

The financial industry generally believes that the new financial infrastructure has three classifications.

Classification of new financial infrastructure



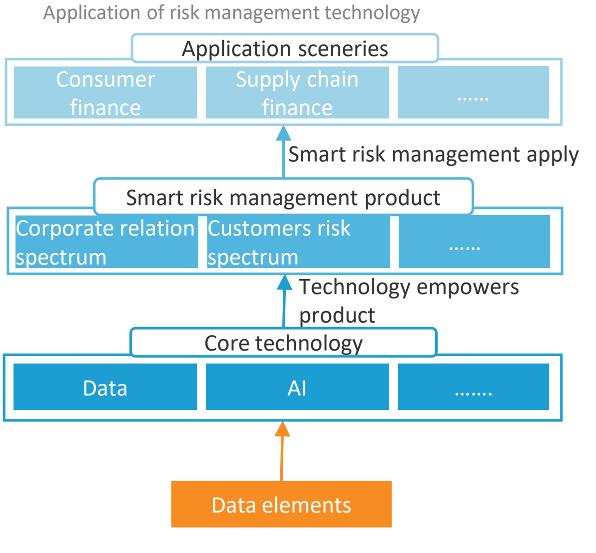
Source: WeBank; KPMG, EqualOcean analysis

Major fintech companies are scrambling to propose new infrastructure technology solutions, using big data and other technologies to provide financial institutions with integrated services.

Such as Fudata applies federated computing and secure-directional computing to financial scenarios. Fudata provides integrated solutions such as smart risk management and marketing.

Risk management technology is the most mainstream fintech choice

Application of risk management technology



Source: EqualOcean analysis

Financial institutions have a high requirement for risks. Therefore, risk management is the core of financial activities. Risk management technology is applied to all financial scenarios and processes.

However, traditional risk management faces problems, such as high labor costs, imperfect credit system, low agility, and low risk management accuracy.

New technologies have advantages of optimizing risk prevention and control data indicators, empowering various financial segments and strengthening risk management capabilities. Smart risk management is the most crucial technology choice in fintech.

Risk management is the most challenge for fintech companies

Fintech challenges and regulatory concerns survey

The main challenge of fintech

Security, compliance, and data privacy issues rank first.

Concerns of financial responders about regulation

Data storage and privacy protection are ranked first, with 14% of responders considering it as the most important supervision. And 12.8% of responders in the second-ranked digital identity authentication expressed concern.

Source: KPMG, EqualOcean analysis

New financial infrastructure is the basic link of digitalization

China’s risk management industry experienced a period of “crazy growth”, which has made the financial industry with greater risks more difficult. Therefore, risk management technology has gradually been valued. **According to Lingyi Caijing, a Chinese company, the compound growth rate of patent applications for risk management technology in the five-years copounding from 2014 was as high as 63.82%.**

Data Visor, listed company, obtained four software copyrights in 2020. Data Visor uses data intelligence to quickly identify fraud patterns and provide anti-fraud solutions for financial institutions.

Data Visor was approved by Oceanwide in December 2019 and received tens of millions of dollars in financing.

China Scope Case Study

Overview

- China Scope, found in 2009, is AI-based technology company. China Scope is committed to provide intelligent data service and decision system solution based on industry logic for scenes in different industries, such as financial industry.

- The core idea of China Scope is that digital transformation will become decisive factor to drive productivity in the new industrial era. And quality of data elements would directly restrict the development of new productivity. Through AI, China Scope solves the automated mass production of structured and graphed data. China Scope realizes the interconnection of high and low frequency data with the industrial chain data framework. And it forms whole industry data system and completely break data islands

Innovative competitiveness

- China Scope combines industry three portraits and corporate portraits to create a panoramic portrait from industry to corporate. China Scope provides technological services around data intelligence to financial institutions, governments and enterprises.

Industry Portrait
- Real-time consultation, dynamic analysis
- Accurately lock the upstream and downstream
- Solve the problem of corporate positioning

Corporate Portrait
- Quickly locate and evaluate companies
- Improve corporate information with big data technology
- Solve the problem of controlling risks in cooperation with other companies

Panoramic Portrait
- Complete portrait from industry to enterprise
- Simulate the operation of the real economy using data
- Solve the problems of inaccurate information in the financial industry chain
- Realize data intelligence and decision intelligence

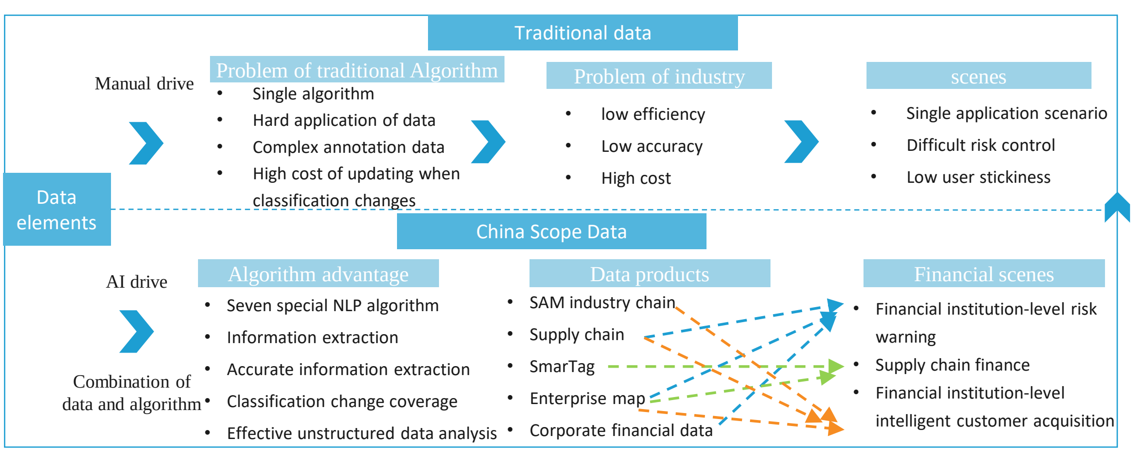
Core business indicators

- With its professional AI technology and data service products, China Scope continues to provide data and technical solutions for financial institutions and other industries in 2020

- Since the launch of SaaS-based data products in the Q4 2018, China Scope continues to maintain a quarter-on-quarter growth of over 50%. The average gross profit margin of data products exceeds 90%. The annual contract value growth rate in 2019 and 2020 both exceed 400%.

- In 2020, on the basis of data services, China Scope starts in-depth cooperation with leading commercial banks and government departments, using diversified data and program products to provide cooperative banks and government departments with data, technical support and decision-making intelligent solutions .

China Scope: fintech business application diagram



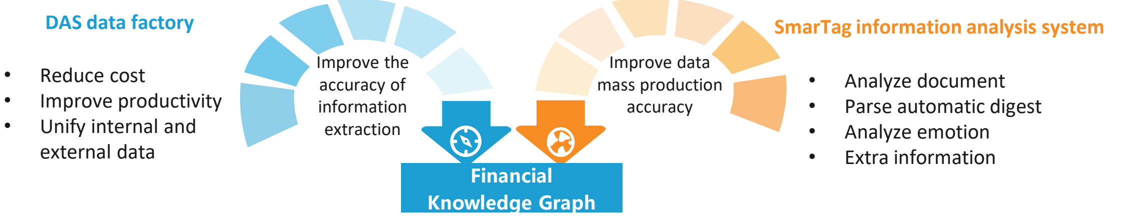
Source: China Scope; EqualOcean analysis

China Scope Case Study

Application of fintech products

DAS data factory + SmarTag information analysis system

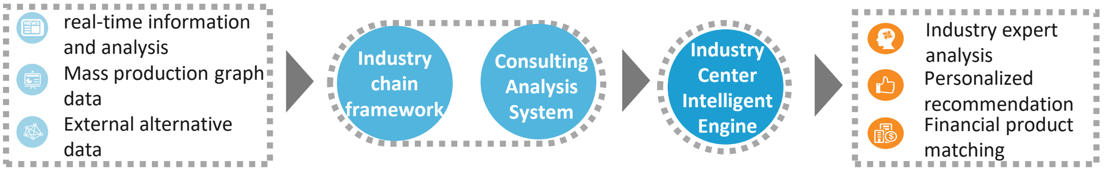
- Using its AI technologies such as natural language processing, China Scope empowers the data production side, effectively integrating data production engineering with technology, and realizing algorithm-driven structured data mass production capabilities. The high-quality structured and graphed data achieve high-precision extraction of information with a deeper knowledge system.
- The DAS data automated production plant and the high-frequency information extraction function complement each other and feed each other back, forming a continuous self-evolution of the financial knowledge system.



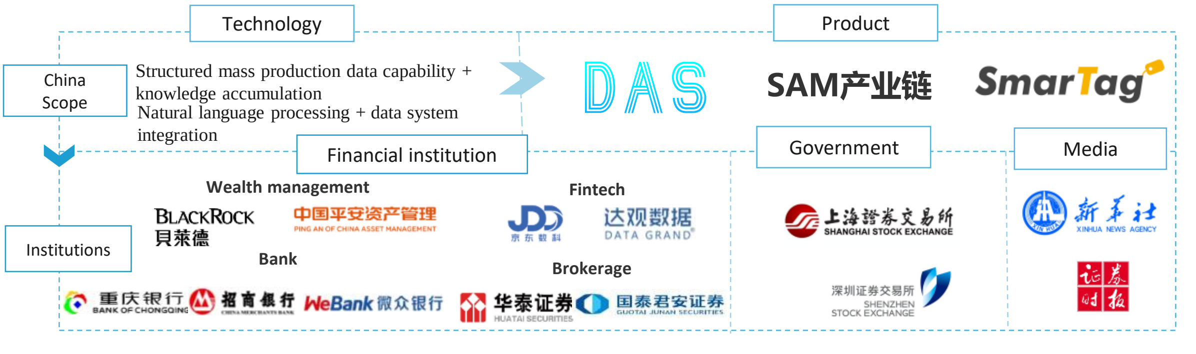
Source: China Scope; EqualOcean analysis

SAM industry chain data system

- The highly-structured and graphed data produced by the DAS data factory accurately extracted by the SmarTag system. It will be reassembled through the SAM industry chain data system to achieve full industry coverage and data interconnection based on product nodes and upstream and downstream relationships.



Corporate institutions



Business challenge

- Due to the relative abstraction of data products, China Scope needs to continue to invest in scenario-based exploration, establish stronger scenario-based program integration and cash realization capabilities.

Netis Case Study

Overview

➢ Netis, found in 2005, provides financial institutions with enterprise-level software products. Netis also provides solutions for performance management of business, network and database through Crossflow. Besides, Netis helps financial institutions to stabilize operation and maintenance as well as operational innovation. Netis also helps financial institutions, which undergo digital transformation.

➢ Based on wire data, Crossflow engine of Netis streams data to more valuable and directly-usable structured data. Crossflow can be applied to business operation and maintenance guarantee as well as operation innovation of enterprises with implemented immediately.

Innovation value - Crossflow

➢ Crossflow transforms the wire data into a unified data source for operation and maintenance assurance and business operations. It adopts bypass network data analytics and conversion technology, which can be obtained without modifying the existing business.

➢ On the one hand, the Crossflow unifies the IT architecture of the phased development, and uses technical means to realize the transaction performance monitoring and management mode of a unified data source. On the other hand, the Crossflow is associated with the business and technology perspectives of the enterprise.

Data collection

- Span Tap
- GRE erspan Vxlan

data processing

- Crossflow stream processing engine

Netis products

- BPC
- NPM
- DBCube
- TeamVision

Application of business

- Operation and maintenance assurance; cyber security
- Detect
- Real-time marketing
- BI

Solution

- Full link service performance monitoring
- Cloud environment business performance monitoring
- Fintech smart operation solution

Netis solves the problems of traditional financial industry operation and maintenance and operation

Traditional financial enterprise operation and maintenance and operational challenges

- The lack of a unified data source makes the full-link monitoring transformation costly and difficult to implement
- Traditional monitoring focuses on underlying services, systems, and facilities; therefore, business delivery results are imperceptible
- System metrics are inconsistent and it lacks consistent performance evaluation standards
- IT operation and maintenance perception lags behind; agility cannot keep up with business development

Source: Netis; EqualOcean analysis

Technical achievement

Huawei technical approval

Netis Cloud ecologically supports many enterprises, including Alibaba Cloud and Huawei Cloud. In 2019, Netis obtained the HUAWEI COMPATIBLE technical certification issued by Huawei Cloud.

Patents

Netis has obtained 15 invention patents. And many are under application.

CMG members

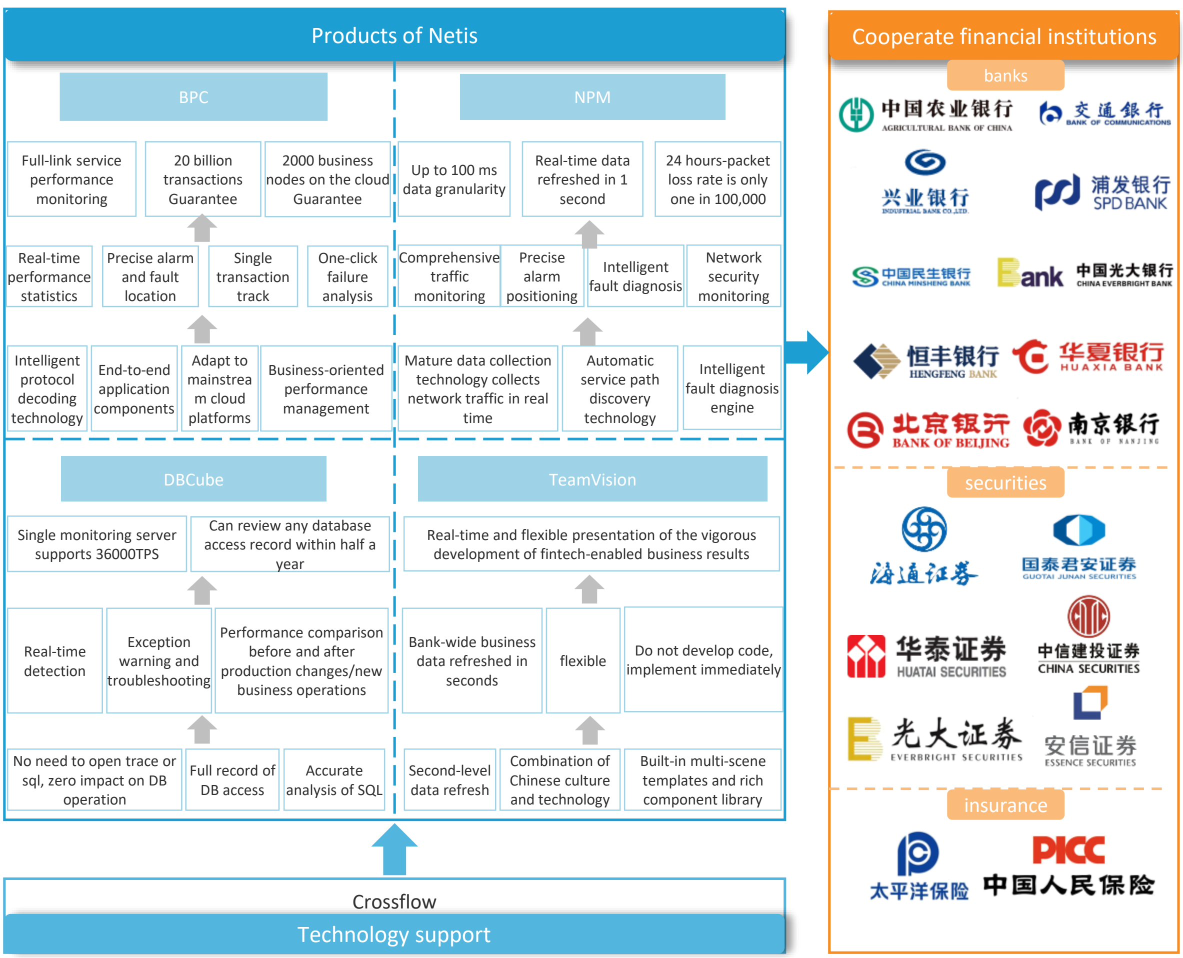
CMG is an organization dedicated to helping companies maximize system performance through system performance evaluation, analysis, and prediction. Its members include Bank of America and Citibank.

Source: Netis; EqualOcean analysis

Netis Case Study

Diversified products of Netis empower many financial institutions

- Crossflow can support more than 400 industries and 2000 special business data. And various products help supports and operations comprehensives.
- Among them, Netis's business performance management BPC span multiple architectures such as physical environments, virtualization, and clouds. It provides operation and maintenance personnel with effective means to monitor core application performance end-to-end. And it respond quickly to business changes, and ensure business continuity of financial institutions. BPC product have long has served many banking institutions such as Agricultural Bank of China, Bank of Communications, Industrial Bank, and Shanghai Pudong Development Bank.
- Netis's products use technology to empower the infrastructure of traditional financial institutions through Crossflow and help the digital transformation of traditional finance.



Source: Netis; EqualOcean analysis

Business challenge

- From demand side, although demands of traditional institution has been increasing year-by-year, some financial institutions are not try to transform digitalization. Therefore, nations need to support and encourage traditional institutions to transform digitalization, so it can give the chances to new financial infrastructure provider, like Netis.

Future of Finance and Technology

With the development of development, new technologies and alternate updates are changing people's lifestyles and the business models of traditional industries. Technology gives "new" capabilities in all conventional sectors. Changes in consumer demand and dynamic competition within the industry had stimulated a new stage for the "new" financial industry.

It is also that while reforming "newness", the risk of barbaric growth also follows, and the role of supervision is crucial. Under the balance between innovation and supervision, global fintech companies have shown four major trends: product diversification, scene segmentation, rapid implementation of core technologies and ecological reorganization.

- Product diversification: Fintech companies are in the early stage of their start-up and have a single business line. For example, risk management companies focus on smart risk management. The expansion of the competitive landscape is gradually becoming more prominent. Fintech companies will involve businesses in multiple fields, and business diversification will become the label of future fintech companies.

- Scenario segmentation: Financial scenarios are diverse and complex, and the focus of financial activities has gradually shifted from investment to consumption. The development of emerging consumer scenarios has become a strategy that financial companies focus on. Therefore, for fintech, providing newer and more subdivided financial scenario solutions will become the core competitiveness of fintech companies.

- The rapid implementation of core technologies: through the update of the technology, the application of big data, cloud computing and AI has been relatively mature and has been implemented in the entire financial industry chain. However, due to the late emergence of blockchain and 5G technology, the implementation of applications still needs The precipitation of time. With the decentralized and reproducible characteristics of the blockchain chain, blockchain technology will be the core of competition among financial technology companies. EqualOcean considered that blockchain, which will move from concept to application within three years, would empower various financial scenarios.

- Ecological transformation: The integration of emerging technologies into the traditional financial industry stimulates new development models of the financial industry, thereby promoting the fintech progress. In the future, more and more companies will join the fintech ecosystem to reshape the financial ecological chain.

The industrial revolution of finance plus technology: The development of fintech is destined to subvert the entire financial industry. For traditional financial companies, whether it is subverted or subverted is in a flash.

APPENDIX

Resulting from continuous industry analysis, EqualOcean has compiled the '**Next global 50: Fintech**' list, which contains selected fintech startups that are likely to shake the industry landscape in the near future.

Company name	'Subindustry'	Founded year	Last funding type	Last funding amount, million USD
AccessFintech	Risk management tech	United States	B	20
Anyfin	Micro tech	Sweden	B	30
Bairong,Inc.	Risk management tech	China	C	/
Insgeek	Insurtech	China	C	25
Bestow	Insurtech	United States	B	50
BharatPe	Paytech	India	C	75
Bonuo	Wealth management tech	China	C	10
Coverfox Insurance	Insurtech	India	C	4
Current	Bank tech	United States	C	31
DataVisor	Risk management tech	China	C	/
Digits	New financial infrastructure	United States	B	22
DFWY	Micro tech	China	C	/
Finix Payments	Paytech	United States	B	30
Flutterwave	Paytech	United States	B	35
Form3	Paytech	United Kingdom	C	33
Fudata	New financial infrastructure	China	B	/
GreenLight	Wealth management tech	United States	C	215
ArchForce financial Technology	New financial infrastructure	China	B	20
iBanFirst	Bank tech	Belgium	C	25
INDwealth	Wealth management tech	India	C	12
Rivere Tech	Micro tech	China	B	46
Kyash	Paytech	Japan	C	45
Ladder	Insurtech	United States	C	38
Leyaoyao	Paytech	China	C	23
Linklogis	Micro tech	China	C	/
Lydia	Paytech	France	B	47
M1 Finance	Wealth management tech	United States	C	45
Nanyan Insurtech	Insurtech	China	C	38
Nium	Paytech	Singapore	C	/
Opay	Paytech	Nigeria	B	120
PasarPolis	Insurtech	Indonesia	B	54
Penta	Bank tech	Germany	B	5
Pie Insurance	Insurtech	United States	B	127
Razorpay	Paytech	India	D	100
Fintell	Risk management tech	China	B	10
Rupeek	Micro tech	India	C	60
Samoyed Digital Technology	Micro tech	China	C	/
ChinaScope	New financial infrastructure	China	B	/
SMECorner	Micro tech	India	B	30
Thought Machine	New financial infrastructure	United Kingdom	B	125
Thunes	Paytech	Singapore	B	60
Netis	New financial infrastructure	China	C	/
Trade Republic	Wealth management tech	Germany	B	73
Trusting Social Co	Risk management tech	United States	B	19
Wagestream	Wealth management tech	United Kingdom	B	24
Warren Brasil	Wealth management tech	Brasil	B	23
XTransfer	Paytech	China	C	/
Knowlegene	New financial infrastructure	China	B	15
Zhongyuan Consumer Finance	Micro tech	China	/	/
Emotibot	New financial infrastructure	China	C	30

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