

## "MEDICAL + INTERNET" CONCEPT STOCK INVESTMENT ANALYSIS

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# MARKET SEGMENTATION AND POSITIONING STRATEGIES

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**ABSTRACT** 

The rapid development of China's medical industry and information technology promote the

development of internet medical industry. The concept of "Healthy China" emphasizes

"prevention first" and gradually transforms the traditional medical industry. It is easy to find

BAT's (Baidu, Alibaba and Tencent) investment and relevant emerging concept stocks in A-

share market. The internet medical industry is evaluated according to five category profiting

models including wearable devices, medical e-commerce, medical information, Hospital and

medical insurance. Around 32 selected stocks representing these industries are analysed by

gathering extensive qualitative and quantitative data. By applying the forecasting analysis, the

study provides the main financial strategy for the selected stocks in order to wisely select the

real strategically planning internet medical companies for better investment.

Key words: Concept Stock, Internet Medical, Investment Analysis, financial strategy

JEL Classification: G14, G17

**RESUMO** 

O rápido desenvolvimento da indústria de saúde médica da China e a tecnologia da informação

têm promovido o desenvolvimento da indústria médica através da Internet. O conceito de

"China Saudável" enfatiza a "prevenção em primeiro lugar" e gradualmente reverte a

transformação da indústria médica tradicional. É fácil encontrar o maior investimento dos BAT

(Baidu, Alibaba e Tencent) nesta área e de títulos emergentes relevantes no mercado de ações.

A indústria médica interna é avaliada de acordo com cinco categorias de modelos de lucro,

incluindo dispositivos vestíveis, comércio eletrónico médico, informações médicas, seguro

hospitalar e médico. Cerca de 32 ações selecionadas representando essas indústrias são

analisadas pela recolha de dados quantitativos e qualitativos extensivos. Ao aplicar a análise de

previsão, o estudo fornece a principal estratégia financeira para as ações selecionadas, a fim de

selecionar os melhores investimento nas empresas médicas assentes na Internet.

Palavras-chave: Estoque de conceito, Internet médica, análise de investimento, estratégia

financeira

Classificações JEL: G14, G17

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ANDA	Abbreviated New Drug Application	
ARIMA	Autoregressive Integrated Moving Average	
BAT	Baidu, Alibaba, Tencent	
B2C	Business to consumer	
СТ	Computed Tomography	
CAGR	Compound Annual Growth Rate	
CBCT	Cone beam Computer Tomography	
DRGs	Diagnosis Related Groups	
DTP	Direct to Patient	
EPS	Earnings Per Share	
FDA	Food and Drug Administration	
FPC	Flexible Printed Circuit	
GMP	Good Manufacturing practices	
GIS	Geographic Information System	

GPO Group purchasing organizations

GARCH Generalized Autoregressive Conditional Heteroscedasticity

HDI High Density Interconnector

HIS Hospital Information System

IVD In vitro diagnostic products

IoT Internet of things

MAD Mean absolute deviation

MAPE Mean absolute percent error

M&A Mergers and Acquisitions

MIS Management Information System

MSE Mean-square error

OA Office Automation

O2O Online to Offline

PPP Public—Private—Partnership

POCT Point-of-care testing

PBM Pharmacy Benefit Management

RFID Radio Frequency Identification

RBT Resource-based theory

R&D Research and development

SAP System Applications and Products

TPA Third Party Administrator for Group

TS Tracking signal

## 1. Introduction

## 1.1 Background

With the rapid development of cloud computing, big data, internet of things and communication technology, the opportunity for "Internet + medical" development, in particular the mobile internet medical service has been ushered in. The concept of "Healthy China" is well matched with the current planning concept of "value medical treatment". The "Internet + medical" develops toward the direction emphasizing "prevention first" and gradually transforms the traditional medical model.

Internet medical service is not only an important complementary and effective aid to traditional medical services, but also has the characteristics of optimizing the allocation of medical resources across time and space. The Chinese government has put forward the requirements of the hospital reform, medical treatment grading system and the medical insurance system. Social capital is encouraged and guided toward the participation of big data projects, application development and operation services. The use of government and social capital cooperation (PPP) model are advocated. Social capital, private capital participation and the innovation of diversified investment mechanisms are further explored.

## 1.2 Significance

From the manufacturing of medical devices to the circulation, it involves several major roles such as hospitals, pharmacies, patients and payers. An entire industry chain integrating of the Internet and medical services is gradually being developed. Government, enterprises, institutions and social institutions have cooperation in government procurement, social crowdsourcing to achieve government applications and social integration in healthcare big data field. Besides large internet companies like BAT (Baidu, Alibaba and Tencent), we found lots of traditional companies and new internet medical entrepreneurs in the internet medical industry. The money could be burned in the short term, but they must realize the profits if they want to survive. The reality is that after the capital is invested, a large number of projects have not found a point of strength to obtain users to increase revenue. Generally, the longest return on investment that most investors can accept is only five to seven years. Internet medical

investment was hot, but in fact its investment return period might be longer. The risk prevention and financial supervision should also be improved to better support the health care big data applications and internet medical development.

## 1.3. Research objectives and questions

This thesis aims to analyse the rise and development of Internet medical industry and in particular focuses on the five categories of profiting business Models in healthcare industry including wearable devices, medical e-commerce, medical information, Internet Hospitals and Medicare fees. The thesis would analyse the problems in empirical and quantitative way. In order to catch the trend of "Medical + Internet" and earn profits from Concept Stock Investment, the thesis's further analysis is based on the following three questions.

## **Research Questions:**

- ·What can we learn from China BAT's major investment in internet medical industry?
- ·How to face the difficulty of medical +internet business model's profit realization?
- ·How to identify the real strategically planning internet medical companies for investment?

After investigating each specific category samples, around 32 representative companies' data are collected for further analysis. Among them, the logic of Ali and Tencent's layout is still very different in operating costs, service methods and other aspects. In the medical field, Tencent plays well the role of "connecter". Ali's key word is "operation". It is based on the B2B trading platform and outperforms in the B2C consumer field. The internet medical business is far from reaching the level of fierce competition. Companies like BAT may promote the development of the medical industry through competition.

Internet medical care has not yet entered the harvest season. There was less participation in some traditional medical fields, such as the consultation. Internet medical care pays more attention to precision medicine and personalized medicine. This is in line with the development of the pension industry which will become a focused area. By apply the forecasting methodology, different representative companies' stock prices are predicted over the next three years' period. Thus, companies and investors could make better financing strategies and invest in the real strategically planning internet medical companies.

## 2.Literature review

In order to achieve the objectives of the research, the previous research documents and analysis results are examined based on three aspects, the technological part, healthcare part and financial part. The literature review will include the following aspects:

## 2.1 Internet business evolution and related services (tech change for healthcare industry)

Lots of papers provide an overview of the current state of the art in the field of healthcare quality, with a special focus on technological and managerial innovation. It also serves as an introduction to the special issue of healthcare quality and innovation. This research synthesizes the results of selected studies, emphasizing the themes of healthcare quality and innovation in terms of diversity of continental localities, study purpose, study methods, and topics discussed in each individual paper.

Extensive research has been dedicated to the exploration of various technologies such as information technologies (IT) in complementing and strengthening existing healthcare services. In particular, the Internet of Things (IoT) has been widely applied to interconnect available medical resources and provide reliable, effective and smart healthcare service to the elderly and patients with a chronic illness. Jara et al. (2010), present a pharmaceutical intelligent information system to detect allergies and adverse drug reactions based on Internet of Things and an IoT –based personal device for diabetes therapy management in ambient assisted living. The authors conclude that the IoT is an interesting and promising approach for personalized health care systems in the next generation of eHealth solutions. Subsequently, we will take a look at some recently published research papers dealing with the adoption of IoT technologies in healthcare. Some IoT applications solve various problems related to the disabled. The author analyses how people with various disabilities (such as, visual, hearing and physical impairments) can interact with and benefit from the IoT. Researchers estimate that the Internet of Things will have many applications in the healthcare sector, "with the possibility of using the cell phone with RFID-sensor capabilities as a platform for monitoring of medical parameters and drug delivery", etc. L. Coetzee and G. Olivrin approach inclusion through the Internet of Things. YIN, Zeng, Chen, Fan (2016) summarize the applications of IoT in the healthcare industry

and identify the intelligent trend and directions of future research in this field. Based on a comprehensive literature review and the discussion of the achievements of the researchers, the advancement of IoT in healthcare systems have been examined from the perspectives of enabling technologies and methodologies, IoT-based smart devices and systems, and diverse applications of IoT in the healthcare industries.

The market for wearable healthcare devices is one of the fastest growing markets of this decade. Casselmana, Khansa, Onopab (2017) conduct a thorough peer-reviewed on wearable healthcare. The structured examination revealed that the primary areas of innovation in wearable healthcare include infant safety and care, elderly care, chronic disease management, military support, sports medicine, and preventive medicine. Several hurdles stand in the way of the wearable market's success; these include threats to data security and privacy, regulatory requirements, cost of system operation and management, and subpar adoption rates. Overall, analysis revealed that significant effort is needed to address the identified technological, societal, and governmental barriers that are preventing the wearable healthcare market from reaching its full potential. Incentives by the Federal government that fuel innovation and encourage adoption by healthcare professionals and patients is deemed necessary for the wearable market's continued growth. Kim, Gaukler and Lee (2016) provide information and strategic insights for healthcare policy makers and managerial decision makers in both the private and public sectors to use in planning and controlling healthcare quality, activities, and services.

## 2.2 Healthcare business trends

Despite the fact that there has been significant improvement in the healthcare industry, inefficiency still exists and little accomplished in understanding how to overcome those inefficiencies using innovation in healthcare Thakur, Hsu and Fontenot (2012) tried to answer the following research questions. How do executives and practitioners define the term innovation in healthcare? How do healthcare organizations come up with innovative ideas and how do they make those innovative decisions? How do healthcare executives and practitioners roll out those innovative changes in their organizations? What strategies do these organizations

apply toward the formulation of innovative decisions? What role does information technology play in the innovative process? The researchers conducted in-depth interviews to answer several research questions. The respondents included healthcare executives from 15 healthcare units. Results of the decision-making processes used by these executives concerning innovation conclude with a practical model. Implications for practitioners and policy makers and future trends are completed in the paper.

Although big data analytics have tremendous benefits for healthcare organizations, extant research has paid insufficient attention to the exploration of its business value. In order to bridge this knowledge gap, this study proposes a big data analytics-enabled business value model in which we use the resource-based theory (RBT) and capability building view to explain how big data analytics capabilities can be developed and what potential benefits can be obtained by these capabilities in the health care industries. Using this model, researchers investigate 109 case descriptions, covering 63 healthcare organizations to explore the causal relationships between the big data analytics capabilities and business value and the path-to-value chains for big data analytics success. Wang and Hajli (2017) provide new insights to healthcare practitioners on how to constitute big data analytics capabilities for business transformation and offer an empirical basis that can stimulate a more detailed investigation of big data analytics implementation.

Innovation management project is mainly driven by three key drivers: Business strategy, people management, good project management. Goffin and Mitchell (2005) emphasize that the aspiration for innovation is generated by four main factors such as technological advances, changing customers, intensified competition and changing business environment with its five dimensions: product innovation, service innovation, process innovation, business process innovation and business model innovation that may deliver an innovation model for organizations ibid.

## 2.3 Financial and stock research for healthcare

Researchers use an overlapping-generations model with endogenous growth based on health human capital accumulation, where families pay for childhood preventive care and the government can either fully finance or co-finance adulthood curative care. Devarajan et al. (1996) prove that, if agents are assumed to be heterogeneous in preferences, full financing can become the best option. Woode et al. (2014) analyse the impact of healthcare financing on economic growth, focusing on the issue of the joint public–private financing of healthcare (co-payment). From a growth maximizing perspective, distortionary taxes give an advantage to co-financing.

The structure of China's current governance bears prominent features of fiscal decentralization. The supply of healthcare resources in China has clearly witnessed slower growth in the last two decades during which the fiscal decentralization process has taken place. Using China's provincial panel data, researchers examine the determinants of healthcare resource supply while paying particular attention to the role of fiscal decentralization. Zheng, Wang, Li, Yu (2015) find that the supply of healthcare resources is inversely related to the degree of decentralization, which, using spatial econometrics, is attributed to the presence of strategic substitutes in healthcare spending across city governments. These findings have important implications for policy makers in making fiscal arrangements among different government tiers.

In recent years, many scholars in China also apply the time series model to study the stock price index in China. The formation and fluctuation of the stock prices are not only affected by various economic and political factors but also influenced by investment psychology and trading technology. There are many influencing factors of the stock price. The stock price is mainly adjusted by the company's performance. It is the unchanged main principle of the stock market. However, the stock price is not only closely related to the internal financial status of listed companies, but also to the overall stock market conditions and the overall economic performance.

Liu (2008) established the ARIMA model of its stock price by using EVIEWS software and proposed a one-step dynamic forecasting method of stock price series. According to ARIMA (p, d, q) model principle and method, Ai and Wang (2008) model the logarithmic yield data of Shenzhen Stock Exchange Index in China. The ARIMA model and the GARCH model are

compared with the HENSEN index of Hong Kong and its four-component sub-index. Seasonal changes are the fluctuations in the seasons due to certain economic phenomena (a certain time series) within one year, which are basically influenced by natural factors. Seasonal factors are purely temporal, such as climate, calendar days and holidays. In some papers, for example, Liu Qunli (2007) use the seasonal change forecast method to analyse and predict the core indicators of the number of hospital clinics and inpatients.

## 3. Methodology and data

The capital enthusiasm in the field of Internet + medical services are not actually reduced, but transfer to invest in large-scale enterprises that are more mature and have a clearer business model. For listed companies, the stock price reflects the company's operating conditions and future development trends. Historical stock prices provide the company's main technical indicators to analyse and study. Thus, it is reasonable to collect the Internet+ medical concept stock data as a way to further explore the internet + medical service development. First, we divided the Internet +medical Industry into five business profiting models, and the data collection work is based on the selection of some representative listed companies.

## 3.1Profiting model based on intelligent equipment/cloud healthcare management

Through the wearable device / POCT (point of care testing) hardware access, data could be uploaded to the APP for monitoring and management. It will ultimately achieve big data integration and cloud health management. China's smart wearable device market in 2014 was about 2.2 billion yuan. In 2015, the official launch of Apple Watch greatly stimulated the consumption level for smart wearable devices. It was estimated that the market for smart wearable devices in China will reach 135.6 billion yuan in 2015. The following are some representative listed companies whose stock prices are collected for further analysis.

## Andon Health Co Ltd (002432)

Andon Health Co., Ltd. is a professional manufacturer of home medical and health electronic products. Its main products are home health care products related to home health care projects,

including electronic blood pressure monitors and low frequency therapeutic devices, including electronic blood pressure monitors, blood glucose meter and other home physiological parameters test equipment, as well as low-frequency treatment equipment, multi-channel low-frequency treatment equipment and other family health equipment.

## Sinocare Inc. (300298)

Sinocare Inc. is a company that uses biosensor technology to develop, produce and sell instant detection products. Its main products are micro blood fast blood glucose tester and blood glucose test strips, which constitute blood glucose monitoring. The system is mainly used for blood glucose monitoring. The company is a leading company in the field of blood glucose monitoring in China and is practicing an international strategy.

## Le Pu Medical Technology (300003)

Lepu (Beijing) Medical Devices Co., Ltd. is a medical device manufacturing company. The company is mainly engaged in the research and development, production and sales of coronary intervention and congenital heart disease interventional medical devices.

## Inner Mongolia Furui Medical Tech Co., Ltd (300049)

Inner Mongolia Furui Medical Technology Co., Ltd. is a modern pharmaceutical enterprise integrating scientific research, production, sales and network services. It has been focusing on the field of liver diseases. At present, it mainly provides liver fibrosis diagnosis and treatment products and services.

## Guangdong Biolight Meditech Co Ltd (300246)

Guangdong Bolgiht Medical Technology Co., Ltd. is a company mainly engaged in research, development, production and sales of medical monitors and related medical devices. Its main products are multi-parameter monitors, mainly including handheld monitors, conventional integrated monitors and plug-ins. We believe that the company's hemodialysis industry chain

is clear in layout from upstream product production, midstream channel coverage to downstream medical services control.

## Eagle Electronics (002579)

Huizhou China Eagle Electronic Technology Co., Ltd is a company that develops, produces and sells new electronic components (high-density printed circuit boards, etc.). The company's main products are double-panel, multi-layer board, HDI board and aluminium substrate and other printed circuit boards.

## Shenzhen Fenda Technology Co Ltd (002681)

Shenzhen Fenda Technology Co., Ltd. is a company engaged in the research, development, production and marketing of home and personal care small household appliances such as multimedia speakers and hairdressing appliances.

## 3.2 Profiting model based on pharmacy e-commerce

For the pharmaceutical e-commerce business, the biggest favourable policy recently is that the "Supervision and Administration of Internet Food and Drug Operation" will be officially launched. Removing the ban of online prescription drugs will release a huge market profits of nearly one trillion yuan for pharmaceutical e-commerce providers. At present, the sales of pharmaceutical e-commerce account for a relatively small proportion of the total market. There is a huge space. In 2013, the scale of the pharmaceutical market in China was 1.2 trillion yuan, of which the sales of pharmaceutical e-commerce only amounted to 4.2 billion yuan, accounting for 0.3% of the total. While the sales of US pharmaceutical e-commerce reach 74.3 billion dollars, accounting for 30%. According to the forecast, China Medicine (600,056) e-commerce market scale would reach more than 200 billion yuan. In 2014, the number of B2C online pharmacies in China was 272, an increase of 144% compared with the same period of last year and sales were about 7.6 billion yuan, an increase of 67% compared with the same period of last year.

## Jointown Pharmaceutical Group Co Ltd (600998)

Jointown Pharmaceutical Group Co., Ltd. is a Sino-foreign joint-stock company that focuses on the wholesale, retail chain and pharmaceutical production and R&D of pharmaceuticals, medical devices and other related value-added services. The company currently operates pharmaceutical and medical device with more than 14,000 varieties. It has more than 4,200 upstream suppliers and more than 69,800 downstream customers and obtained national or regional total distribution or general agent qualifications for more than 230 domestic drugs. The company is one of the three largest pharmaceutical commercial circulation enterprises in China, and is one of the only two companies with a nationwide network in the pharmaceutical business field. According to statistics from the China Pharmaceutical Business Association, from 2003 to 2008, the company has ranked No. 3 in China's pharmaceutical business enterprises and No. 1 in China's private pharmaceutical business enterprises for six consecutive years.

## Shanghai Pharmaceuticals Holding Co., Ltd (601607)

Shanghai Pharmaceuticals Holding Co., Ltd is a company dedicated to the pharmaceutical industry. Its predecessor was Shanghai No. 4 Pharmaceutical Factory. It was reorganized in 1993. Its main products include various medicines and health products. The Group's major asset restructuring project won the "Best Innovation Project" of the Securities Times, and was named "the most market-recognized restructuring" of Shanghai State-owned Assets in the 2nd China's Most Competitive Medicine Listed Company Awards Ceremony.

## Yixintang Pharmaceutical (002727)

The main business of Yunnan Hongxiang Yixintang Pharmaceutical (Group) Co., Ltd. is the pharmaceutical retail chain and pharmaceutical wholesale business, of which the pharmaceutical retail chain is the core business of the company. The company's main business scope includes the operation and sales of Chinese medicine, western medicine and medical equipment. The main source of income is the sales revenue of direct chain stores.

## Cachet Pharmaceutical Co., Ltd (002462)

Cachet Pharmaceutical Co., Ltd is mainly engaged in the wholesale and retail business of pharmaceuticals, medical devices, and pharmaceutical logistics business. It includes the chain stores retailing of drugs and medical devices for consumers; pharmaceutical wholesale business for community hospitals, medical institutions and logistics business for suppliers, medical institutions, etc. The company's chain store retailing business is one of the largest direct pharmacy networks in Beijing.

## Realcan Pharmaceutical (002589)

Realcan Pharmaceutical has been committed to building a direct sales network of medical institutions and retail channels. Realcan Pharmaceutical has grown to be nationwide medical institution directly selling pharmaceuticals, medical devices, consumables and comprehensive service providers of information service, hospital management consulting, in-house logistics and hospital logistics service. It is the leading enterprise in the national pharmaceutical and medical device circulation industry. The sales network covers 31 provinces in China, with complete varieties and reliable quality. The advantages of timely delivery and good service establish its leading position in the pharmaceutical and medical device distribution industry. The company's main business is divided into eight major sectors such as the pharmaceutical, vaccine, medical device circulation, third-party logistics, medical information service, medical logistics, Chinese medicine, hospital management, medical industry R&D production and medical industry financial sector.

## Shijiazhuang Yiling Pharmaceutical (002603)

Shijiazhuang Yiling Pharmaceutical Co., Ltd. is a company mainly engaged in the research, development, production and sales of proprietary Chinese medicines. The company has GMP-certified capsule, tablet, granule and injection production lines, as well as the European Union-certified chemical preparation workshop.

## Kangmei Pharmaceutical (600518)

Kangmei Pharmaceutical Co., Ltd. is a company engaged in the production, management and wholesale sales of pharmaceutical organisms. The company is the first batch of GMP-certified Chinese medicine decoction pieces, which is one of the largest and most diverse enterprises in the industry. Chemical medicine and traditional Chinese medicine decoction pieces. The company has two modern production bases of chemical medicines and traditional Chinese medicine decoction pieces (including toxic decoction pieces) that have passed the national drug GMP certification. The traditional Chinese medicine decoction piece production base is currently the largest in China, with the highest starting point and the most complete varieties. The National Traditional Chinese Medicine Pieces GMP standardized production demonstration base has a production capacity of 3,000 tons. The company has more than 7,000 kinds of medicines, Chinese herbal medicines and medical equipment that have passed the national drug GMP certification.

The company's "mobile medical + urban central pharmacy" smart medical business model covers the entire process of medical drugs for patients, connecting online and offline medical institutions, forming a complete commercial closed loop. On the one hand, the company realizes the real-time circulation and collection of patient prescriptions by directly connecting to the hospital HIS system; on the other hand, the "Smart Pharmacy" mobile platform provides patients with the assistance of the whole process such as appointment registration, smart guidance, online payment, and drug delivery.

## Tai Antang Pharmaceutical (002433)

Guangdong Tai Antang Pharmaceutical Co., Ltd. is a pharmaceutical company mainly engaged in the research, development, production and sales of proprietary Chinese medicines. The company's main products include: skin diseases, Xinbao pills, Qilin pills, other products, etc. The main business of proprietary Chinese medicines has developed steadily, and a new starting point for the rapid development of pharmaceutical e-commerce.

## BY-Health Co Ltd (300146)

Founded in October 1995, BY-Health has systematically introduced dietary supplements into China's non-direct marketing field and has rapidly grown into a leading brand and benchmarking enterprise for dietary supplements in China. The company is a leading company in the non-direct selling field of China's dietary supplements industry. It is a high-tech enterprise in the field of biology and new medicine technology. It has a professional production base covering soft capsules, hard capsules, tablets and powders. The non-direct sales field has a huge sales network and chain network, and has a strong channel brand in the industry. The company's products are sold in more than 9,000 retail terminals in more than 200 cities in China. Currently, the penetration rate of dietary supplements in the United States has exceeded 60%, while China is only 20%, domestic or in the United States in the 1990s. The dietary supplement industry will usher in a round of rapid growth.

## 3.3 Profiting model based on medical information

From the "medical informatization" to "one-stop medical management" evolution, one-stop medical management covers eight major areas: health management, network consultation, registered referral, waiting, diagnosis, treatment, payment, medicine pick up and rehabilitation management which are all seamless connected to the cloud management.

## Zhuhai Hokai Medical Instruments Co Ltd (300273)

Zhuhai Hokai Medical Equipment Co., Ltd. is a company engaged in research, development, production, sales and service of medical equipment. The company mainly deals with four business segments: the minimally invasive treatment equipment for tumours, medical molecular sieve oxygen equipment & engineering, routine diagnosis & treatment equipment and medical equipment agent distribution.

## Neusoft Corporation (600718)

Neusoft Group Co., Ltd. is a high-tech enterprise focusing on software development and software services, system integration and provides comprehensive solutions, medical system

product production and sales. The company's main products software development and system integration are mainly provided to various basic industries. By making full advantage of technical advantages in software, the company provides the medical industry with high-intelligence digital medical products such as CT, X-ray machine, colour ultrasound, nuclear magnetic resonance. The medical health and social security business (up 16%) and the smart car interconnection business (up 34%) grew rapidly. In terms of industries, the company's business is mainly divided into medical health and social security business, smart car interconnection business, smart city business, enterprise interconnection and other businesses.

## Avcon Information Technology Co., Ltd (300074)

Avcon Information Technology Co., Ltd is a research, development, sales and technical service enterprise engaged in multimedia communication systems based on IP networks. Its main products include video conferencing systems, video surveillance command systems and industry solutions.

## Enjoyor Co Ltd (300020)

Enjoyor Co., Ltd. is a high-tech enterprise engaged in providing intelligent technology application services to users in the transportation, medical, construction and other industries. The company's main intelligent system engineering products include urban traffic intelligence, medical informanization and architecture intelligence.

## Xi'an International Medicine Invest Co Ltd (000516)

Founded in 1956, Xi'an International Medical Investment Co., Ltd. is the first listed company in Shaanxi Province and Northwest China. The company is mainly engaged in the transformation and application of large health medical services and modern medical technology. In recent years, through continuous improvement of corporate governance structure and scientific & technological innovation with stable operation, the company has become one of

the increasingly the largest listed medical groups in China. By dropping the department store retail assets, the company has transformed completely into a pure medical service enterprise.

Shanghai Yanhua Smartech Group Co Ltd (002178)

Shanghai Yanhua Intelligent Technology (Group) Co., Ltd. is a comprehensive service provider of intelligent architecture and digital community, mainly engaged in building intelligent system planning consulting, engineering design, system equipment procurement, construction and integration commissioning, project management, operation, maintenance and other comprehensive value-added services. It is one of the largest and most qualified intelligent architecture service providers in China. The company's products mainly include: intelligent engineering and electronic products.

Beijing Egova Co., Ltd (300075)

Beijing Egova Technology Co., Ltd. is a company engaged in software R&D and sales. The company is mainly engaged in the development and promotion of e-government and GIS application platforms, providing government departments with integrated GIS, MIS and OA e-government solutions. It also provides a collaborative platform for data sharing between various government departments. The company is one of the few professional e-government solution providers focusing on digital city management and land resource management.

Elefirst Science and Tech Co., Ltd (300356)

Elefirst Science and Tech Co., Ltd. is mainly engaged in research, development, production and sales of software and hardware for intelligent electrical information collection systems. The company's main products and services include low-voltage centralized meter reading system, special Variable acquisition terminal, distribution metering terminal, handheld meter reading terminal and etc.

DHC Software Co., Ltd (002065)

Winning Health Technology Group Co Ltd (300253)

Wonders Information Co Ltd (300168)

These three companies are also selected in the Medicare fee category. Further data collection could be shared and examined accordingly without repetition.

## 3.4 Profiting model based on internet Hospital

Yihua Healthcare Co Ltd (000150)

Yihua Health Medical Co., Ltd. has direct/indirect/hosted more than 16 hospitals. With the continuous expansion of the company's Xinjiang, Jiangxi, and Jiangsu and Zhejiang hospitals, it is expected that the hospital business of the company will continue to grow steadily in 17 years. The company focus on building a "three-in-one" medical and nursing combination strategy system. Thus, it divests medical equipment assets. At present, the company has established two major business directions, namely hospitals and pension industry, focusing on building a medical and pension logistics service, hospital investment, pension community service and nursing combination strategy system.

Guiyang Longmaster info & Tech Co., Ltd (300288)

Guiyang Longmaster info &Tech Co., Ltd. is providing community voice value-added services as its main business. Its main products are telephone pairs. The company has developed into the leading and innovative community voice value-added service provider in China. The telephone pair has become the largest domestically leading voice social entertainment platform.

Hefei Meiya Optoelectronics Technology Inc. (002690)

Hefei Meiya Optoelectronic Technology Co., Ltd. is a high-tech enterprise specializing in R&D, production and sales of special equipment for optoelectronic detection, classification and software application. The main products or services are the production and sales of special equipment for photoelectric detection. The medical imaging business is growing fast and has great potential. Medical imaging is the company's current focus on business development. The

company's oral X-ray CT diagnostic machine is widely used in various clinical applications such as dental implants, impacted tooth extraction, and difficult periodontal disease diagnosis.

Winsan Shanghai Medical Scie & Tech Co Ltd (600767)

Winsan Shanghai Medical Scie &Tech Co., Ltd. is a company mainly engaged in urban infrastructure development and ancillary services including urban water supply, energy, transportation, industrial, real estate project development and engineering contracting.

## 3.5 Profiting model based on Medicare fees

Searainbow Holding Corp. (000503)

The company announced the renaming and the re-election of the new board of directors, which means that the company's transition from private enterprises to the status of central enterprises has been completely completed. In the future, the company will take the responsibility of creating a comprehensive health insurance system with the "China Reform Health Management & Services Group Co., Ltd" central enterprise status, and comply with the establishment of the National Medical Insurance Bureau, and actively promote the development of health protection services in China. The company is the only company that has obtained a pharmaceutical e-commerce license and is the only designated e-commerce company for domestic government procurement. The company's development strategy is: adhere to the asset management as the core, take the holding and shareholding business as the means to achieve scale expansion and rapid development, and develop into Large-scale, comprehensive and diversified investment and asset management group across industries and geographies.

Winning Health Technology Group Co Ltd (300253)

Winning Health Technology Group Co., Ltd. is a software company that focuses on research, development, sales and technical services in the field of medical and health applications, and provides overall solutions for the informanization of the medical and health industry. The company adheres to the "human-centered" humanized medical management model, practices the concept of "smart medical", and independently develops software products that adapt to

different application scenarios through continuous technological innovation. Its popularity and leading market position are among the major software vendors in China that provide complete solutions for the comprehensive information management in the medical and health field.

## Wonders information Co Ltd (300168)

Wonders Information Co Ltd is a company engaged in the service of urban information. The company has established three main businesses of industrial application software, professional IT services and software & hardware system integration in the practice of urban informanization. It has outstanding competitive advantages in social security, health services, Civil aviation transportation, business management, e-government and etc. It formed four key development areas including logistics management, science & technology education, environmental protection and land &resources.

## DHC software Co., Ltd (002065)

DHC Software Co., Ltd. is a company engaged in application software development, computer information system integration and information technology services. Its main products and services include system integration, technical services and self-made & customized software. Subsidiary Donghua Medical has reached a strategic cooperation with Tencent Cloud and Jointown to jointly build an "Internet + Medicine" ecological chain. Through complementary resources and technology integration, the two sides have carried out a series of substantive cooperation in the fields of "Artificial Intelligence Auxiliary Clinic + Guidance", "Smart Hospital", "Cloud HIS", "Medical Block chain" and etc.

## 3.6 Forecasting Methodology:

Due to the volatility of stock prices, investors are bound to encounter the risk of investment. Investors can easily understand certain price changes of a type of stock, but it is not easy to understand the comprehensive changes in the prices of many kinds of stock. To solve this problem, some financial services agencies use their own professional knowledge to compile stock prices. Investors could benefit from the comprehensive stock market tools to predict the

stock market movements and may determine the future trend of stock prices relying historical prices movements. The stock index changes have been the concern of investors. Forecasting methodology is a key methodology applied and researched by lots of scholars as well. This thesis will carefully examine different ways of forecasting in Internet+ Medical stocks.

There are four basic types of prediction methods: qualitative prediction, time series analysis, causal method and simulation. All these methods are useful in stock price prediction in some way. Because of the many factors affecting the stock price volatility, its forecast is difficult to achieve. The traditional regression analysis model is too complicated to predict and the prediction accuracy is not better than the time series analysis method due to the frequent changes of the stock market. On the other hand, the time series analysis method model is generally simple with lower cost. It is especially suitable for the irregular stock data. This thesis will mainly apply times series method into the collected financial data.

The first step is to collect historical data, organize it, compose time series, and draw the charts based on time series. Time series analysis usually classifies all kinds of factors that may have effect. The traditional classification method is divided into four categories according to the characteristics of various factors or influence effects: (1) long-term trend; (2) seasonal change; (3) Cyclical changes; (4) irregular changes. The second step is to analyse the time series. The value of each period in the time series is the result of a combination of many different factors at the same time. The third step is to find the long-term trend of time series (T) seasonal variation (s) and irregular change (I) values, and select the approximate mathematical model to represent them. For unknown parameters in the mathematical model, determine their values using suitable techniques. After using the time-series data to derive a mathematical model of long-term, seasonal and irregular movements, we can use it to predict future long-term trends T and seasonal variations s and, where possible, predict irregular movements.

Different models or methods are calculated and compared in order to get the most accurate predicted value of the future time series. MSE, MAD, and MAPE are three common measures of predictive accuracy. Accuracy measures based on the mean square error criterion, especially MSE itself, have been the most preferred measures in evaluating forecasts for a single series.

Another popular accuracy measure is the Absolute Percentage Error (MAPE). The MAPE is scale independent. However, MAPE was criticized for the problem of asymmetry and instability when the original value is small. Softwares like Eview, R or Excel quantitative methods are well developed to provide various sorts of methods for forecast analysis. Excel quantitative methods are repeatedly applied in this dissertation to test the accuracy and obtain the prediction results.

## 4. Analysis of results

In the above chapter, we select the corresponding representative indexes from the stock market. After we collect and process the data, and confirm the empirical methodology to analyse. In the following, we first propose the criteria for the stock market prediction, and then test the data and different models selected in the previous chapter. Finally, we analyse the empirical results one by one and discuss the trend, seasonality and tracking signals of the Internet+ medical concept stocks.

## 4.1 Measure of forecast accuracy and model selection

In this thesis, we will take a look at relevant accuracy criteria based on the calculation convenience and then choose the most appropriate models for five categories of business models in Internet+ Medical Concept stocks. We choose Sinocare Inc. (300298) company as an example to evaluate its future stocks EPS and net profits.

Having a quick glimpse of three MAPE in table 4.1 and table 4.2, it is easy to find 34,36% is the smallest one. For the exponential smoothing, alpha 1 has a smaller MSE compared with alpha 0,2. The next period result 0,6346 is normally the same as the previous period. We could use different alphas to test the accuracy. For table 4.2 exponential smoothing method, Alpha 1 and Alpha 0,2 could be the common choices. There are also lots of other advanced smoothing methods such as Double, Holt-winters and etc. Investors could apply as many methods as possible to get the most accurate results or simply choose four or five major methods to compare the prediction accuracy.

Table 4. 1: Forecasting -Weighted moving averages method

	ng ne data in the shad ASING order from	ed area. Enter w	moving averag	es - 3 period	moving ave	erage		
Data	-			Forecasts an	d Error Analy	sis		
Period	Demand	Weights		Forecast	Error	Absolute	Squared	Abs Pct Err
Period 1	1,34	1	3 periods ago					
Period 2	1,56	2	2 periods ago					
Period 3	1,25	3	1 periods ago					
Period 4	0,99			1,36833333	-0,3783333	0,37833333	0,14313611	38,22%
Period 5	0,5509			1,17166667	-0,6207667	0,62076667	0,38535125	112,68%
Period 6	0,3611			0,81378333	-0,4526833	0,45268333	0,2049222	125,36%
Period 7	0,6346			0,52918333	0,10541667	0,10541667	0,01111267	16,61%
				Total	-1,3463667	1,5572	0,74452224	292,87%
				Average	-0,3365917	0,3893	0,18613056	73,22%
					Bias	MAD	MSE	MAPE
						SE	0,61013205	

Table 4. 2: Forecasting –Exponential smoothing method

Forecasting	g	Exponentia	l smoothin	g			
Alpha	1						
Data			Forecasts an	d Error Analy	sis		
Period	Demand		Forecast	Error	Absolute	Squared	Abs Pct Er
Period 1	1,34		1,34	0	0	0	00,009
Period 2	1,56		1,34	0,22	0,22	0,0484	14,10
Period 3	1,25		1,56	-0.31	0.31	0.0961	24,80
Period 4	0.99		1,30	,	0,31	0,0501	-
			,	-0,26	,	,	-
Period 5	0,5509		0,99	-0,4391	0,4391	-	79,71
Period 6	0,3611		0,5509	-0,1898	0,1898	0,03602404	52,56
Period 7	0,6346		0,3611	0,2735	0,2735	0,07480225	0,430980
			Total	-0.7054	1,6924	0,5157351	240,53
			Average	-0.1007714	0,24177143	-	34,36
			riterage	Bias	MAD	MSE	MAPE
				5103	SE	0,3211651	Truck E
Next period	0,6346				32	0,0222002	
Forecastin	ng .	Exponentia	al smoothin	g			
Forecastir	ng	Exponentia	al smoothin	g			
Forecastir	ng	Exponentia	al smoothin	g			
			al smoothin	g			
Alpha	0,2			d Error Analy	sis		
Alpha					sis Absolute	Squared	Abs Pct Er
Alpha Data	0,2		Forecasts an	d Error Analy		Squared	
Alpha Data Period	0,2 Demand		Forecasts an	d Error Analy Error 0 0,22	Absolute	0,0484	00,009
Alpha Data Period Period 1	0,2 Demand		Forecasts an	d Error Analy Error	Absolute 0	0	00,009 14,109
Alpha Data Period Period 1 Period 2 Period 3 Period 4	0,2 Demand 1,34 1,56 1,25 0,99		Forecasts an Forecast 1,34 1,34 1,384 1,3572	d Error Analy Error 0 0,22 -0,134 -0,3672	0 0,22 0,134 0,3672	0,0484 0,017956 0,13483584	00,009 14,109 10,729 37,099
Alpha Period Period 1 Period 2 Period 3 Period 4 Period 5	0,2 Demand 1,34 1,56 1,25 0,99 0,5509		Forecasts an Forecast 1,34 1,34 1,384 1,3572 1,28376	d Error Analy Error 0,22 -0,134 -0,3672 -0,73286	0,22 0,134 0,3672 0,73286	0,0484 0,017956 0,13483584 0,53708378	00,009 14,109 10,729 37,099 133,039
Alpha Data Period Period 1 Period 2 Period 3 Period 4 Period 5 Period 6	0,2 Demand 1,34 1,56 1,25 0,99 0,5509 0,3611		Forecasts an Forecast 1,34 1,34 1,384 1,3572 1,28376 1,137188	d Error Analy Error 0,22 -0,134 -0,3672 -0,73286 -0,776088	0 0,22 0,134 0,3672 0,73286 0,776088	0,0484 0,017956 0,13483584 0,53708378 0,60231258	00,009 14,109 10,729 37,099 133,039 214,929
Alpha Period Period 1 Period 2 Period 3 Period 4 Period 5	0,2 Demand 1,34 1,56 1,25 0,99 0,5509		Forecasts an 1,34 1,34 1,3572 1,28376 1,137188 0,9819704	d Error Analy Error 0,22 -0,134 -0,73286 -0,776088 -0,3473704	0 0,22 0,134 0,3672 0,73286 0,776088 0,3473704	0,0484 0,017956 0,13483584 0,53708378 0,60231258 0,12066619	00,009 14,109 10,729 37,099 133,039 214,929 0,547384
Alpha Data Period Period 1 Period 2 Period 3 Period 4 Period 5 Period 6	0,2 Demand 1,34 1,56 1,25 0,99 0,5509 0,3611		Forecasts an Forecast 1,34 1,384 1,3572 1,28376 1,137188 0,9819704 Total	d Error Analy Error 0,22 -0,134 -0,3672 -0,776088 -0,3473704 -2,1375184	0 0,22 0,134 0,3672 0,73286 0,776088 0,3473704 2,5775184	0,0484 0,017956 0,13483584 0,53708378 0,60231258 0,12066619 1,4612544	00,009 14,109 10,729 37,099 133,039 214,929 0,547384 464,609
Alpha Data Period Period 1 Period 2 Period 3 Period 4 Period 5 Period 6	0,2 Demand 1,34 1,56 1,25 0,99 0,5509 0,3611		Forecasts an 1,34 1,34 1,3572 1,28376 1,137188 0,9819704	d Error Analy Error  0 0,22 -0,134 -0,3672 -0,73286 -0,776088 -0,3473704 -2,1375184 -0,3053598	0,222 0,134 0,3672 0,73286 0,776088 0,3473704 2,5775184 0,36821691	0,0484 0,017956 0,13483584 0,53708378 0,60231258 0,12066619 1,4612544 0,20875063	00,009 14,103 10,729 37,099 133,039 214,929 0,547384 464,609 66,379
Alpha Data Period Period 1 Period 2 Period 3 Period 4 Period 5 Period 6	0,2 Demand 1,34 1,56 1,25 0,99 0,5509 0,3611		Forecasts an Forecast 1,34 1,384 1,3572 1,28376 1,137188 0,9819704 Total	d Error Analy Error 0,22 -0,134 -0,3672 -0,776088 -0,3473704 -2,1375184	0 0,22 0,134 0,3672 0,73286 0,776088 0,3473704 2,5775184	0,0484 0,017956 0,13483584 0,53708378 0,60231258 0,12066619 1,4612544	Abs Pct En 00,009 14,109 10,729 37,099 133,039 214,929 0,547384 464,609 66,379 MAPE

## 4.2 Trend projection Analysis

The Trend Projection Method is a classical method of business forecasting, which is concerned with the movement of variables through time. This method requires a long time-series data. Graphical Method, Fitting Trend Equation or Least Square Method are possibly

applied in the main purpose of observing the trend tendency of five categories of business models. The form of trend equation that can be fitted to the time-series data can be determined either by plotting the sales data or trying different forms of the equation that best fits the data. Once the data is plotted, it shows several trends. Besides weighted moving average and exponential smoothing, tend projection analysis is the third method applied in order to obtain the most accurate prediction results. From table 4,3, the MAPE 25,51% is even less than the above 34,36%. The MSE and MAD is smaller as well. Although some other securities companies have the prediction results like 0,6346 which is the same as the last year. But according to the declining trend, the earnings per share might reduce to 0,2105. However, the seasonal factors should also be considered. Thus, we should move to the seasonal index analysis.

Forecasting Trend projection asts and Error Analysis Data Period Demand (y) Period(x) or ccast Error Absolute Squared Abs Pct Err 0,0379067 YEAR 1 0,99189643 -0,1946964 0,19469643 24,42% 0,7972 0,89775 0,07285 YEAR 2 -0,07285 0,00530712 08,83% 0,8249 0,80360357 YEAR 3 1,1167 0,31309643 0,31309643 0,09802937 28,04% YEAR 4 4 0,70945714 -0,0081571 0,00815714 6,6539E-05 01,16% 0,7013 YEAR 5 5 0,61531071 0,12628929 0,12628929 0,01594898 17,03% 0,7416 6 YEAR 6 0,5731 0,52116429 0,05193571 0,05193571 0,00269732 09,06% YEAR 7 0,2114 0,42701786 -0,2156179 0,21561786 0,04649106 102,00% 190,54% Total 3,0531E-16 0,98264286 0,2064471 0,02949244 1,08604286 4,3616E-17 0,14037755 Intercept Average 27,22% -0,0941464 MAD Slope SE 0,20319798 Future perio 0,33287143 Correlation -0,7388487 Coefficient of determination 0,54589735 1.5 Regression 1 0.5 0 Series1 ······Linear (Series1)

Table 4. 3: Forecasting –Trend Projection

## 4.3 Seasonal index Analysis

Seasonal change refers to the price due to natural conditions, production conditions and living habits and other factors, as the seasonal changes show a cyclical change. This cycle is usually one year. The characteristics of seasonal changes are regular and repeated each year,

showing the same direction of change and roughly the same amplitude of change in the same month (or season) each year. Seasonal changes are the fluctuations in the seasons due to certain economic phenomena (a certain time series) within one year, which are basically influenced by natural factors. Seasonal factors are purely temporal, such as climate, calendar days and holidays.

The seasonal change forecast method analyzes and predicts the core indicators of hospital treatment and inpatient hospital statistics. Due to the influence of natural conditions and social factors, the statistic value of objective phenomena appears regular changes within one year. In the results analysis, we would try to observe whether such seasonality exists and what are the seasonal characteristics. Studying past seasons changes is of great significance in deciding the current management activities, especially the organization of commercial activities, avoiding the adverse effects caused by seasonal changes and predicting the future. Table 4.4 and table 4.5 shows respectively 2 seasons and 3 seasons' predicting results, 0,65 and 0,53 are closer to method of exponential smoothing with alpha 1. After the application of these four methods, we could choose the same results 0,63 recommended by other securities traders as well. For a forecasting of three years' period, normally we could use 3 seasons to have the prediction.

Table 4. 4: Forecasting- Decomposition, multiplicative (2 seasons)

2 seasons			_										
Data										Forecasts an	d Error Analy	sis	
Period	Demand (y)	Time (x)		Average	Ratio	Seasonal	Smoothed	Unadjusted	Adjusted	Error	Error	Error^2	Abs Pct Err
YEAR 1	1,43	1				0,97781474	1,46244471	1,31378578	1,2846391	0,1453609	0,1453609	0,02112979	10,179
YEAR 2	0,43	2	0,93	0,8	0,5375	0,86668523	0,49614322	1,24900308	1,08249252	-0,6524925	0,65249252	0,42574648	151,74
YEAR 3	0,91	3	0,67	0,8975	1,01392758	0,97781474	0,93064663	1,18422038	1,15794814	-0,2479481	0,24794814	0,06147828	27,259
YEAR 4	1,34	4	1,125	1,2875	1,0407767	0,86668523	1,54612073	1,11943767	0,9702001	0,3697999	0,3697999	0,13675197	27,609
YEAR 5	1,56	5	1,45	1,4275	1,09281961	0,97781474	1,59539423	1,05465497	1,03125718	0,52874282	0,52874282	0,27956897	33,899
YEAR 6	1,25	6	1,405	1,2625	0,99009901	0,86668523	1,4422768	0,98987227	0,85790768	0,39209232	0,39209232	0,15373639	31,379
YEAR 7	0,99	7	1,12	0,945225	1,04736967	0,97781474	1,01246172	0,92508957	0,90456622	0,08543378	0,08543378	0,00729893	08,639
YEAR 8	0,5509	8	0,77045	0,613225	0,8983652	0,86668523	0,63564023	0,86030687	0,74561526	-0,1947153	0,19471526	0,03791403	35,349
YEAR 9	0,3611	9	0,456	0,476925	0,75714211	0,97781474	0,36929286	0,79552417	0,77787526	-0,4167753	0,41677526	0,17370162	115,429
YEAR 10	0,6346	10	0,49785			0,86668523	0,73221509	0,73074147	0,63332284	0,00127716	0,00127716	1,6311E-06	00,209
									Total	0,01077571	3,03463806	1,29732809	441,619
				Average		Intercept	1,37856848			0,00107757	0,30346381	0,12973281	44,169
						Slope	-0,0647827			Bias	MAD	MSE	MAPE
											SE	0,43050271	
Ratios													
	Season 1	Season 2											
		0,5375											
	1,01392758	1,0407767											
	1,09281961	0,99009901											
	1,04736967	0,8983652											
	0,75714211												
Average	0,97781474	0,86668523											
Forecasts													
Period	Unadjusted	Seasonal	Adjusted										
11	-	0,97781474	0,6511843										
	-	0,86668523											

Table 4. 5: Forecasting- Decomposition, multiplicative (3 seasons)

3 seasons													
Data	1									Forecasts an	d Error Analy	sis	
Period	Demand (y)	Time (x)		Average	Ratio	Seasonal	Smoothed	Unadjusted	Adjusted	Error	Error	Error^2	Abs Pct Err
Period 1	1,43	1				1,05964548	1,34950795	1,29874852	1,376213	0,053787	0,053787	0,00289304	03,76
Period 2	0,43	2		0,92333333	0,46570397	0,82078075	0,52389143	1,23320489	1,01219084	-0,5821908	0,58219084	0,33894617	135,39
Period 3	0,91	3		0,89333333	1,01865672	0,9019795	1,00889211	1,16766125	1,05320651	-0,1432065	0,14320651	0,02050811	15,74
Period 4	1,34	4		1,27	1,05511811	1,05964548	1,26457389	1,10211762	1,16785395	0,17214605	0,17214605	0,02963426	12,85
Period 5	1,56	5		1,38333333	1,12771084	0,82078075	1,90062936	1,03657399	0,85079998	0,70920002	0,70920002	0,50296467	45,46
Period 6	1,25	6		1,26666667	0,98684211	0,9019795	1,38584081	0,97103036	0,87584947	0,37415053	0,37415053	0,13998862	29,93
Period 7	0,99	7		0,9303	1,06417285	1,05964548	0,93427474	0,90548672	0,95949491	0,03050509	0,03050509	0,00093056	03,089
Period 8	0,5509	8		0,634	0,86892744	0,82078075	0,6711902	0,83994309	0,68940912	-0,1385091	0,13850912	0,01918478	25,149
Period 9	0,3611	9		0,51553333	0,70043967	0,9019795	0,40034169	0,77439946	0,69849244	-0,3373924	0,33739244	0,11383366	93,439
Period 10	0,6346	10				1,05964548	0,59887954	0,70885583	0,75113587	-0,1165359	0,11653587	0,01358061	18,36
									Total	0,02195391	2,65762346	1,18246446	383,15
				Average		Intercept	1,36429215			0,00219539	0,26576235	0,11824645	38,329
						Slope	-0,0655436			Bias	MAD	MSE	MAPE
											SE	0,44393402	
Ratios													
	Season 1	Season 2	Season 3										
		0,46570397	1,01865672										
	1,05511811	1,12771084	0,98684211										
	1,06417285	0,86892744	0,70043967										
Average	1,05964548	0,82078075	0,9019795										
Forecasts													
Period	Unadjusted	Seasonal	Adjusted										
	1 0,64331219												
	12 0,54331219	-											
	3 0.51222493	.,	,										

## 4.4 Tracking signal Calculation

The so-called tracking signal (Tracking signal / TS), refers to the prediction error rolling and the average absolute deviation of the ratio. Is used to measure the accuracy of the forecast. When the forecast is updated weekly, monthly or quarterly, the new actual demand obtained is compared to the corresponding forecast. A positive tracking signal indicates that the actual demand is greater than the forecast, while the negative indicates that the actual demand is less than the forecast. A satisfactory tracking signal should have a lower RSFE with about the same positive and negative errors. This means that small deviations are allowed, but the positive and negative deviations should cancel each other out so that the tracking signal is close to zero.

In the result analysis of this thesis, we try to find the tracking signal for those target stocks. It will be compared with the predetermined control limits. If the upper and lower control limits are exceeded, there is a problem with the forecasting method and we should re-evaluate the forecasting method used. The use of tracking signals would be a way to monitor the specific means: adaptive smoothing and focus prediction.

Table 4. 6: Forecasting- Error Analysis-Tracking Signal

Forecasting		Error Analy												
Enter the	past demands and	forecasts in the	data area											
D-4-				F						Totalina Cian	I			
Data	D1	F		Error analys		Abaabaa	C1	Al- D-LE-		Tracking Sigr		Na. d	T  6:	
Period		Forecast			Error		-	Abs Pct Err			Cum Abs Err		_	(Cum error/MAI
YEAR 1	0,63	0,6511843			-0,0211843		0,00044877	03,36%		-0,0211843	0,0211843	0,0211843		
YEAR 2	0,78	0,52103042			0,25896958	,	_	33,20%		0,23778528	0,28015388	0,14007694	1,69753337	
				Total	,	,	,	36,56%						
				Average	,	,	0,03375701	18,28%						
								MAPE						
						SE	#DIV/0!							
							Not enough o	lata to comp	ute the stand	lard error				
Faunantin -		F A	-husta				Not enough o	lata to comp	ute the stand	lard error				
Forecasting		Error An					Not enough o	lata to comp	ute the stand	lard error				
	past demands and						Not enough d	lata to comp	ute the stand	lard error				
							Not enough d	lata to comp	ute the stand	lard error				
							Not enough d	lata to comp	ute the stand	lard error				
Enter the p				Error ana	lysis		Not enough d	lata to comp	ute the stand		inal			
				Error ana	_					Tracking Sig	_	Mad	Track Signal	(Cum error/MAI
Enter the p	Demand	orecasts in the d	ata area	Error ana	Error	Absolute	Squared	Abs Pct Err		Tracking Sig	Cum Abs Err			Cum error/MAD
Enter the p  Data  Period	Demand 0	Forecast	ata area	Error ana	_	Absolute 02 0,10	Squared 2 0,01040	Abs Pct Err 4 16,19%	T	Tracking Sig	Cum Abs Err	0,102	1	(Cum error/MAC
Data Period YEAR 1	Demand 0	Forecast 63 0,5	28 21	Error ana	Error 0,10	Absolute 02 0,10 59 0,25	Squared 12 0,01040- 9 0,06708:	Abs Pct Err 4 16,19% 1 33,21%		Tracking Sig	Cum Abs Err 0,102 0,361	0,102	1 2	(Cum error/MAC
Data Period YEAR 1 YEAR 2	Demand 0	Forecast	28 21	Error ana	Error 0,10	Absolute 02 0,10 59 0,25 23 0,42	Squared 2 0,01040- 9 0,06708: 3 0,17892:	Abs Pct Err 4 16,19% 1 33,21% 9 43,61%	r 6	Tracking Sig Cum error 0,102	Cum Abs Err 0,102 0,361	0,102	1 2	(Cum error/MAC
Data Period YEAR 1 YEAR 2	Demand 0	Forecast	28 21		Error 0,10 0,25 0,42 0,78	Absolute 02 0,10 59 0,25 23 0,42 34 0,78	Squared 2 0,01040- 9 0,06708: 3 0,17892:	Abs Pct Err 4 16,19% 1 33,21% 9 43,61% 4 93,00%	6	Tracking Sig Cum error 0,102	Cum Abs Err 0,102 0,361	0,102	1 2	(Cum error/MAC
Data Period YEAR 1 YEAR 2	Demand 0	Forecast	28 21	Total	Error 0,10 0,25 0,42 0,78	Absolute 02 0,10 59 0,25 23 0,42 34 0,78	Squared 2 0,01040- 9 0,06708: 3 0,17892: 4 0,25641-	Abs Pct Err 4 16,19% 1 33,21% 9 43,61% 4 93,00%	6	Tracking Sig Cum error 0,102	Cum Abs Err 0,102 0,361	0,102	1 2	(Cum error/MAC

Table 4.6 shows that next three years' prediction have positive tracking signals indicating demand is greater than forecast. The two years' prediction have negative tracking signals indicating demand is less than forecast. The two years' prediction might be a better forecast since it will have about as much positive error as negative error. For the three years' forecast, the tracking signal of 3 might trips either the upper predetermined limits if we need to choose value 2 for the limits. These tracking signals proves the short-term investment in the stocks are more accurate compared with three years' prediction. It is a useful function to check and identify the most exact prediction results.

## 4.5 Listed Companies data analysis results

## 4.5.1 Profiting model based on intelligent equipment/cloud healthcare management

Table 4. 7: Forecasting of intelligent equipment/cloud healthcare companies

2011 2012 2013 2014 2015 2016 2017 Average Forecast 2018	0,08 0,03 -0,02 0,03 -0,41 0,04 -0,38	-0,09	1,34 1,56 1,25 0,99 0,5509 0,3611 0,6346		0,5827 0,4966 0,4454 0,5212 0,6415	(300049) 0,42 0,33 0,04 0,7	Ltd (300246) 0,98 0,5 0,2 0,2314	0,38 0,06 0,05 0,08		Ltd (002 0,84 0,56 0,87	
2013 2014 2015 2016 2017 Average	-0,02 0,03 -0,41 0,04 -0,38	-, -	1,25 0,99 0,5509 0,3611		0,4454 0,5212	0,04	0,2	0,05	-		
2014 2015 2016 2017 Average	0,03 -0,41 0,04 -0,38	-, -	0,99 0,5509 0,3611		0,5212	0,7	-,-	-,		0,87	
2015 2016 2017 Average	-0,41 0,04 -0,38	-, -	0,5509 0,3611				0,2314	0.00			
2016 2017 Average	0,04 -0,38	-, -	0,3611		0,6415		-	0,08			
2017 Average	-0,38	-, -	-,	- 1		0,35	0,16	0,08		0,48	
Average		-, -	0,6346		0,3913	0,4596	0,46	0,31		0,31	
	-0,097	-, -			0,5053	0,27	0,3939	0,06	$\overline{}$	0,34	
Forecast 2018	-0,097	770881	0,9552	_	0,512	0,36708571	0,4179	0,1457	_	0,5542	
		,,,,,,,,	0,	2105	0,476757143	0,3465	0,3939	0,1466	6667		,2128
forecast by securities Traders			0,	6346	0,72	0,46	0,71		0,36		0,28
Net profits of list companies (RMB)	Co (002432)		Sinocare (300298)	Inc	Le Pu Medical Technology (300003)	Inner Mongolia Furui Medical Scie Co Ltd (300049)	Guangdong Biolight Meditech Co Ltd (300246)	Eagle Electronic (002579)		Shenzhe Fenda Technole Ltd (002	ogy Cc (681)
2010	23 716		54 858 8		410 482 700	46 853 100	32 991 300		40 302 500		100
2011	20 806	_	88 161 4		473 157 700	52 369 200	33 775 300	33 993 2		94 426	
2012	6 982 90		128 826	-	403 273 300	41 137 500	36 505 900	9 449 30	$\overline{}$	75 703 800	
2013	-9 168 3	$\overline{}$	165 306	_	361 645 500	4 905 400	28 923 700	11 825 6	_	130 693	
2014	10 197		197 339	-	423 192 600	87 235 300	33 801 500	19 358 5	_	145 424	
2015	-150 76	$\overline{}$	143 663	_	520 890 600			29 240 0	$\overline{}$	293 356	
2016 2017	14 497 9	$\overline{}$	115 198 257 971	$\overline{}$	679 255 700	121 047 900 71 866 900	67 143 500	110 986	$\overline{}$	385 255	
Average	-165 86 -31 198	_	143 915	-	899 085 300 521 372 925	64 637 563	57 547 300 39 325 938	23 744 0 34 862 4	_	443 291	
Forecast 2018 (billion)		0,043		0,231	0,899	0,071	0,042		,053	206 981 325	
, ,		0,043		-					-		0,443
forecast by securities traders (billion)	,			),356	1,325	0,12	0,104	, ,	),136		0,583
EPS Prediction(RMB)	2018	2019	9 2020	CAGR	Prof	its Prediction(Bi	llion)	2018	2019	2020	CAGE
Andon Health Co Ltd (002432)	-0,09	-0,9	8 -0,31	51%	Andon Health Co	Ltd (002432)		-0,04	0,39	-0,12	429
Sinocare Inc (300298)	0,63	0,78	8 0,97	15%	6 Sinocare Inc (3002	198)		0,36	0,42	0,55	159
Le Pu Medical Technology (300003)	0,74	0,9	,		Le Pu Medical Tec			1,33	1,72	,	20%
Inner Mongolia Furui Medical Scie Co Ltd (300049)	0,46	_	_		Inner Mongolia Fu			0,12	0,15	_	13%
Guangdong Biolight Meditech Co Ltd (300246)	0,71	0,8:	,		Guangdong Biolig		(300246)	0,10	0,12	- /	-15%
Eagle Electronics (002579)	0,36	0,4	0,58	17%	Eagle Electronics	(002579)		0,14	0,17	0,22	179
Shenzhen Fenda Technology Co Ltd (002681)	0,28	0,34	4 0,41	14%	6 Shenzhen Fenda T	echnology Co Ltd (	002681)	0,58	0,71	0,85	13%

Andon Health Co., Ltd (Stock number:002432)

According to the forecast from table 4.7, Andon is likely to have negative EPS -0,09 and -0,043 billion net profits. The financial strategy could be constructed based on the following three trends analysis. In the process of short-term weak decline, it can be sold on rallies and will not be considered for purchase. For the medium-term trend, it might be in the rebound stage. Based on three years' negative forecast, it is predicted to be in the bearish market. The funds are outflowing, and investors should be cautious in investing. The company's operating conditions are still acceptable, and it has not received significant recognition from most organizations at current stage.

## Sinocare Inc. (300298)

The shareholding companies completed the acquisition of Niplow (USA) (later renamed Trividia) and Polymer Technology Systems (PTS) on January 7, 2016 and July 20, 2016, respectively. The company is likely to become a strong competitor in the global blood glucose monitoring field. The three years' CAGR (Compound annual growth rate) of EPS and profits turn out to be the same as the 15%. According to table 4.5.1, it is better to buy on dips and do not consider shorting. Since the 2018's forecast 0,63 is kind of the same as 2017. If the company's overseas assets are in poor condition, it will have an adverse impact on the overall performance of the parent company. Investors should pay attention to its expansion on the US market

## Le Pu Medical Technology (300003)

The actual controllers acted in concert to transfer 20.7 million shares through block trades. The employee stock ownership plan is grounded and deeply bound to the interests of the company and employees. By averaging different securities' traders, more optimistic 2018 forecast 0,72 EPS and 1,33 are kept. For this category of intelligent equipment/cloud healthcare companies, the net profits forecast is the top one surpassing over one billion with the EPS surpassing 1 yuan. The company's tumour immunotherapy project is rapidly advancing and is expected to become a new growth point. But product sales could be lower than expectation. It might have the risk of price reduction of product bidding, slower new product approval and other unpredictable risks.

## Inner Mongolia Furui Medical Co., Ltd (300049)

After the change of the actual controller of the company, the company has the expectation of becoming the "Sino-investment Group's pharmaceutical industry holding platform". Therefore, we expect and judge that in the next few years, the company is expected to seize the opportunity to launch the medicine at the right time with the help of SDIC. The integration of the industrial chain in the medical field will enable rapid development. According to the company

announcement, the company acquired 87.322% of the shares of Lisette proposing to issue 44,300,113 (44.3 million shares). According to the existing total 263 million shares of the company before the issuing with the stock price of 13.25 yuan, and after the completion of the merger in accordance with the new share capital (307.3 billion). The market value of the proforma is 4.072 billion yuan in the calculation of the stock. And the EPS of the preparation for the period from 2018 to 2020 shows a growing tendency. Net profits of 0,12 billion is still a relatively low valuation. In the weak market, investors can wait and see. The issuing shares for purchasing assets might not be completed successfully.

## Guangdong Biolight Meditech Co., Ltd (300246)

In the outbreak of the haemodialysis market, the company has a broad development space. The medical service of kidney disease and the expansion of haemodialysis consumables capacity need to be further examined. The overseas market of monitors was affected by factors such as policies and exchange rates. The third year's CAGR becomes negative. For the medium-term trend, the company might have the sell signals since the forecast in 2020 decreases drastically.

## China Eagle Electronic (002579)

With the development of emerging markets such as artificial intelligence, Internet of Things, and drones, the company will introduce security and drone leading enterprise customers such as Dell and Xiaomi to further explore high value-added orders, and there is a broad space for development in the future. The financial strategy is constructed as below.

## Short-term trends:

The market might pick up, and you can buy stocks in moderation and make short-term rebounds.

Medium-term trend:

There is an acceleration trend in the fall-back consolidation.

## Long-term trends:

In the bull market, it is currently in the stage of falling back and the downtrend is accelerating. The funds are outflowing, and investors should be cautious in investing. The company is in good operating condition and most institutions believe that the long-term investment value of the stock is high.

Risk warning: FPC market prices have fallen. The expansion projects progress slowly.

## Shenzhen Fenda Technology Co., Ltd (002681)

The company have strong competitive advantages for having a stable relationship with traditional business customers. With the return of accounts, the operating cash flow has increased significantly. The orders from Sony and other customers are expected to gradually increase, which will effectively boost the performance of Opponda. As synergies appear, the number of A customer orders could continue to expand. Although the EPS 0,28 is relatively low, the net profits forecast above 0,58 are better than other five companies.

Risk warning: The cost of raw materials has risen, and the appearance materials has been iterated.

## 4.5.2 Profiting model based on pharmacy ecommerce

Table 4. 8: Forecasting of pharmacy ecommerce companies

EPS(Yuan)earnings per share	Jointown Pharmaceutical Group Co Ltd(600998)	Shanghai Pharm Ord A (601607)	Pharmaceutical	Pharmaceutical CoLtd	Pharmaceutical	Pharmaceutical	Kangmei Pharmaceutical (600518)	Tai Antang Pharmaceutical (002433)	BY-Health Co Ltd (300146)
2011	0,26	0,8437	0,69	0,2653	1,03	1,17	0,466	0,74	1,7
2012	0,29	0,7635	0,935	0,2717	1,18	0,34	0,655	0,88	1,28
2013	0,34	0,8341	1,234	0,5424	1,49	0,44	0,855	0,48	1,29
2014	0,36	0,9636	1,305	0,95	0,83	0,63	1,04	0,3	0,77
2015	0,43	1,0699	1,331	0,7207	0,44	0,39	0,623	0,26	0,89
2016	0,54	1,1887	0,6788	0,89	1,005	0,48	0,667	0,32	0,37
2017	0,87	1,3093	0,812	1,05	0,67	0,45	0,784	0,38	0,52
Average	0,44142857	0,99611429	0,99797143	0,67001429	0,94928571	0,55714286	0,72714286	0,48	0,97428571
Forecast 2018	0,78	1,35	0,812	1,2	0,595	0,45	0,8337	0,134	0,1514
forecast by securities company	0,74	1,42	0,96	1,35	0,88	0,57	1	0,5	0,68

1			1										
Net profits of list companies (RMB)	Jointow Pharma Group Ltd(600	ceutical Co	Shanghai Ord A (60		Yixintang Pharmaceutical (002727)	Cachet Pharmaceutical Co.,Ltd (002462)	Realcan Pharmaceutical (002589)	Shijiazhuang Yiling Pharmaceutical (002603)	Kangmei Pharmaceu (600518)	tical	Tai Antan Pharmaceutica (002433)	BY-H	ealth Co 00146)
2010	359 54	43 500	1 456 19	94 800	102 945 200	48 542 400	62 109 200	315 559 100	715 522 7	700	56 449 000	92 10	05 900
2011	374 13	34 200	2 042 23	38 500	134 709 500	63 682 500	84 057 300	454 071 100	1 005 031	1 000	74 152 600	186 4	135 100
2012	412 72	20 800	2 052 87	71 700	182 551 400	65 209 600	110 651 400	185 806 400	1 441 191	1 500	88 053 500	280 3	354 300
2013	477 92	27 800	2 213 57	77 900	240 853 300	130 168 800	143 554 900	244 291 500	1 879 817	7 000	132 896 600	421 6	86 300
2014	560 70	06 800	2 591 12	29 100	297 309 100	228 060 100	180 986 800	354 495 200	2 285 879	9 100	186 306 900	502 5	95 000
2015	694 53	34 900	2 876 98	39 100	346 260 400	172 976 500	235 938 500	430 491 000	2 756 734	4 600	190 123 500	635 4	196 100
2016	876 74	41 800	3 196 39	94 600	353 377 000	223 099 600	590 758 900	532 686 100	3 340 403	3 600	243 327 600	535 2	211 800
2017	1 445	510 100	3 520 64	15 600	422 714 100	263 641 600	1 008 211 800	540 705 100	4 100 926	5 100	290 398 600	766 2	255 600
Average	650 22	27 488	2 493 75	55 163	260 090 000	149 422 638	302 033 600	382 263 188	2 190 688	3 200	157 713 538	427 5	17 513
Forecast 2018 (billion)		1,445	i	3,729	0,422	0,295	1,008	0,519		4,318	0,3	1	0,835
forecast by securities traders (billion)		1,394	ļ.	4,013	0,549	0,327	1,306	0,689		5,027	0,38	1	1,003
EDC Dradiction (DNAD)	<u> </u>	2010	2010	202	O CACD	Dec.	efite Deceliatio	n/Dillian\		2010	2010	2020	CACD
EPS Prediction(RMB)		2018	2019				ofits Predictio	<u> </u>		2018	_	2020	
Jointown Pharmaceutical Group Co Ltd(600998)		0,74	0,94	_	_		accutical Group		5)	1,39	_	2,24	17%
Shanghai Pharm Ord A (601607)		1,42	1,63	1,8	5 9% S	hanghai Pharm	Ord A (601607)	)		4,01	1 4,59	5,23	9%
Yixintang Pharmaceutical (002727)		0,96	1,20	1,4	8 16% Y	ixintang Pharm	naceutical (0027)	27)		0,55	0,68	0,84	15%
Cachet Pharmaceutical Co.,Ltd (002462)		1,31	1,67	2,1	.0 17% C	achet Pharmac	eutical Co.,Ltd (	002462)		0,33	3 0,42	0,53	17%
Realcan Pharmaceutical (002589)		0,87	1,13	1,4	4 18% R	ealcan Pharma	ceutical (002589	))		1,31	1 1,69	2,16	18%
Shijiazhuang Yiling Pharmaceutical (002603)		0,57	0,68	0,8	3 13% S	hijiazhuang Yil	ing Pharmaceut	ical (002603)		0,69	0,82	1,00	13%
Kangmei Pharmaceutical (600518)		1,01	1,23	1,5	1 14% K	angmei Pharm	aceutical (60051	8)		5,03	6,12	7,48	14%
Tai Antang Pharmaceutical(002433)		0,50	0,62	0,7	8 16% T	ai Antang Phan	maceutical(0024	(33)		0,38	0,48	0,60	17%
Tai Amang Fnarmaceuticai(002455)		0,50	0,02	٠,.	20,0	0	(	/		,	-,	-,	_

# Jointown Pharmaceutical Group Co., Ltd (600998)

The net profit will be over 1.445 billion yuan, corresponding to EPS of 0.78 yuan. It would be followed with an increasing tendency. We believe that the company is the largest private pharmaceutical circulation enterprise in China, and has long been committed to the distribution for primary medical institutions and retail pharmacies. It benefits from the implementation of the grading diagnosis and treatment and the two-vote policy. As the policy gradually applied into practice, the company's performance is expected to accelerate, the investors could maintain the "Buy" rating. In the short-term trends, the predication of 0,74 EPS in 2018 from table 4.8 compared with 0,87 in 2017, the stock is in the process of weak decline, it can be sold on rallies and will not be considered for purchase. It is in the rebound stage for the Medium-term trend. Jointown is one of the four companies whose net profits increases over 2 billion. The long-term investment value of the stock is high. But the pharmaceutical industry's consolidation might be less than expectation. For this company, we should pay attention to the pharmaceutical industry policy changes and implementations.

Shanghai Pharmaceuticals Holding Co., Ltd (601607)

The company has established drug research and development centres and research teams in the United States and Shanghai to develop international partners and accelerate the development of innovation and internationalization strategies. Facing the new opportunities of the industry, the company continue to deepen the national network layout and complete the acquisition of distribution business in Jiangsu, Shanghai, Liaoning and other provinces. The retail end realized revenue of 3.134 billion yuan (+15.45%) and gross profit margin of 15.61%. Shanghai Pharmaceuticals Holding Co., Ltd has 1981 subordinate chain retail pharmacies, of which 1,324 were directly operated, 50 were hospital side pharmacies, and 77 were DTP pharmacies. The company actively arranged prescription outflows and participated in the Shanghai community comprehensive reform prescription extension project. Currently, it covers 230 social hospitals and health service centres in Shanghai, with a market share close to 70%, and has accumulated over 410,000 prescriptions (+115.4%). As a prescription new retail business platform, the company handled more than 1.3 million electronic prescriptions in the first half of the year, connecting with more than 220 hospitals and 130,000 cooperative doctors. The integration of KODAK China DTP pharmacy further strengthen the company's largest domestic DTP service network. The company takes active position in the prescription outflow market. Its industrial growth is brilliant, and the commercial side is expected to continue to benefit from industry consolidation; future industries and businesses are expected to continue to develop synergistically. It is estimated that the net profit for 2018-2019 is reaching 4 billion yuan, corresponding to EPS of 1.4 yuan/share. The net profits predictions of 4,01, 4,59, 5,23 billion from table 4.8 proves to be the second most profiting company. Investor could maintain "Buy" rating and should be aware of the 9% three years' CAGR is the smallest among the pharmacy ecommerce companies.

Risk warning: Drug development progress and marketing promotion effect are not as good as expected. Policy impact and market competition are intensified. Consistency evaluation, industrial plate marketing reform progress and the operation of the associated company were lower than expectation. There exist M&A integration risk, business management risk and etc.

#### Yixintang Pharmaceutical (002727)

After more than ten years of development, the company has become a large pharmaceutical retail chain with total assets of over RMB 6 billion and annual operating income of over RMB 6.2 billion. It has 4,085 direct chain stores and is the largest sales and largest outlet in Yunnan Province. The expansion of the store tends to be stable, and the quality of profit has improved. The company has a huge space for development in the southwest. It is predicted that the net profits will reach 500 million yuan with EPS increasing to more than 1 yuan. The company is given a "Recommended" rating, it is appropriate for investors to sell stocks in time when the strong market in the early stage has ended. The 15% CAGR of the company proves to stay in the middle level. There exist the risk of drug quality problems and increased market competition. And the company's store layout is mainly provincial level, not meeting the target.

# Cachet Pharmaceutical Co., Ltd (002462)

The company's pharmaceutical wholesale business is concentrated in the Beijing area. Its advantage is the distribution of basic medicines. Drug distribution benefits from Beijing Sunshine procurement, innovative GPO, PBM and other business models. Since 2012, it has covered 8 districts and counties as one of the five basic drug distributors (signing an exclusive distribution agreement with Haidian District). In 2017, Sunshine Bidding has won nearly 30,000 varieties of bids, and the new standard has expanded the market share of the company's pure sales in hospitals. The pharmaceutical industry has ushered in an opportunity to accelerate growth. Industry integrators of instrument circulation benefit from industry policies such as two-vote system and collection. The medical device industry has a growth rate of about 20%. It is a fast-growing market segment. Since 2013, it has actively deployed high-value consumables distribution enterprises. It is in a leading position in the national high-value consumables market for cardiology, and has begun to form a nationwide coverage since 2014. In 2017, the company acquired Zhejiang Jiashi Tongyu and Zhejiang Jiashi Shangyu, and entered the IVD circulation field. The company's net profit attributable to the parent company from 2018 to 2020 will grow to more than 300 million yuan while EPS gradually approaches 2

yuan. The stock price runs above the cost. In the bearish market, it is currently in a rebound phase. The company's expansion is not well matched with the expected risk limit. Receivables turnover period might extend. There exist equipment and consumables price reduction risk.

#### Realcan Pharmaceutical (002589)

In response to the country's industrial reform policies and new formats & demands, the company actively explores new businesses development opportunities. It has expanded its business model to pharmaceutical distribution, medical device supply chain services, medical logistics services, mobile medical information services, third-party logistics, Chinese medicine sector, R&D and production sectors, supply chain financial services and etc. The increase in business model not only increases new profit growth points, but also produces great synergies and enables comprehensive services. As of the end of June 2018, the company's SAP system has been launched on 178 subsidiaries. It is expected that all sub-branches will be launched into the SAP system in 2018, achieving integrated management of logistics, capital flow, information flow and business flow. Through on-line SAP information management, the company carries out refined and information management on different sales models of pharmaceutical and medical device products, dynamically follows the real-time business development status and capital trends of each sub-branch and business line, and effectively strengthens the sub-branch. At the same time of internal control management, the sales network of 31 provinces and municipalities across the country will be linked.

The increase in the proportion of equipment and the proportion of out-of-province has led to a significant increase in performance and profitability. The profits of 2018-2020 are expected to reaching more than 1 billion. The increase in bargaining power and the use of financial instruments will lead to continuous improvement in cash flow and maintain a "buy" rating. According to the results from table 4.8, the highest CAGR 18% among this category proves the rapid development speed of Realcan. 2,16 billion net profits prediction of 2020 are only slightly less than Jointown while the EPS 1,44 is still higher than Jointown's 1,19 in 2020. However, Realcan Pharmaceutical's performance of the M&A target in other provinces does not match

with the expectation. The progress of the two-vote system progress slower. The gross profit margin falls due to fierce competition in the regional market.

# Shijiazhuang Yiling Pharmaceutical (002603)

The company's acyclovir tablet (400mg, 800mg) new drug application (ANDA) obtained the US FDA review and approval. It has great significance of substantively opening the company's internationalization process. Tongxinluo and other products are expected to resume rapid growth. Even Huaqingqing Capsule will benefit from the flu epidemic to boost the annual performance. It is estimated that the company's EPS from 2018 to 2020 will be increasing optimistically for the company's excellent texture of innovative Chinese medicine. The prospect of an international strategy, maintaining a "Buy" rating. The stock is in a short market and may have a short-term rebound. From table 4.8, the net profits prediction of 2020 proves to exceed one billion. For the risk, the company's channel expansion effect and internationalization strategy might progress under expectation.

#### Kangmei Pharmaceutical (600518)

Smart pharmacies have significantly boosted the rapid growth of Chinese herbal medicines. Since the official operation of the Smart Pharmacy in June 2015, the business has developed rapidly. The company has completed the layout in key cities such as Guangzhou, Shenzhen, Beijing, Shanghai, Chengdu, Puning, Chongqing, Xiamen, Kunming and Guiyang. At present, the smart pharmacy successfully undertakes the functions of the traditional hospital pharmacy, and the real-time docking of medical institution prescription resources is extremely expandable. At present, the company has established long-term cooperative relationships with more than 2,000 medical institutions and about 200,000 pharmacies. The total number of outpatient clinics of cooperative medical institutions has reached 200 million. The smart medicine cabinet will become the last mile closed-loop for the company's O2O medical service. A high-frequency interactive user scenario will be formed step by step, resulting in a highly viscous 2C business model. After the completion of Puning and Kunming Health Industry Park, the company's

capacity of Chinese herbal medicines will expand by 50%, which will effectively guarantee the rapid growth of the wafer business.

The following series of investment are announced by the company:

- 1. Smart pharmacy (7.7 billion): planned to build 15 central pharmacy, 48 pharmacies centres, and five satellite pharmacies, which have a three-year investment completion period.
- 2. Smart Medicine Cabinet (2.8 billion): It is planned to be placed in public spaces such as residential areas, hotels, schools, airports, office buildings, subway stations, pedestrian streets, etc. It is estimated that a total of about 50,000 smart medicine cabinets will be placed, and the planned investment completion period is 3 years.
- 3. Puning Chinese Medicine Industrial Park (1.6 billion) and Kunming Great Health Industrial Park (1.4 billion):

Puning Chinese Medicine Industrial Park: After the completion of the project, it will add about 20,000 tons of Chinese herbal medicines per year, with an annual output of about 25 million (bottles/box). Health food; warehousing and logistics centre warehouse area goods inventory of about 1 million, supporting the circulation of drugs about 6 billion / year; Chinese medicine new annual output value of about 3.01 billion.

Kunming Great Health Industrial Park: After the completion of the project, it will add about 10,000 tons of traditional Chinese medicine decoction pieces and an annual output of about 35 million (bottles/box) of health food; the preparation centre will produce about 35 million (bottle/box) of preparations per year; warehousing and logistics centre.

The company's net profit for 2018-2020 is estimated to surpassing 5 billion yuan as the top one among the pharmaceutical companies, corresponding to EPS surpassing 1 yuan as well. The company is a leading enterprise in the Chinese medicine industry. Under the background of the country's vigorous promotion of Chinese medicine, the company has broad development prospects and maintains a "buy" rating.

From the leading industry of traditional Chinese medicine to the leading of pharmaceutical circulation and service (online and offline), the company is building a Chinese model pharmaceutical manufacturing + service giant. Business growth has changed from a simple

Chinese medicine industry to a multi-business synergy. According to table 4.8's data, the EPS is surpassing 1 yuan in 2018. The market has recently been rising continuously, with a short-term careful correction. In the medium-term trend, there is an accelerated upward trend. In the bull market, there is an accelerated upward trend.

Risk warning: The volume of smart pharmacies is less than expected; the advancement of prescriptions is not as good as expected. Price of Chinese herbal medicines or Chinese herbal medicines fluctuate. Strategic cooperation agreements are not well implemented. Internet health care service platform is not well promoted. The financial data of the company is being questioned. Not enough human resources support for the rapid business expansion. There are also the interest rate and capital costs increase in the macroeconomic situation.

# Tai Antang Pharmaceutical (002433)

With the continuous promotion of the E+ pharmacy plan, the superposition of prescription drug online sales is expected to be released. The pharmaceutical e-commerce platform Kang Aiduo has a revenue of 1.369 billion yuan for 2017. After eliminating the real estate business, it is estimated that the company's main business will contribute 260-300 million profits in 18-year. The 18-year reasonable market value of the company's real estate + main business + e-commerce 87.5% equity should be around 11.5 billion, and the current market value of the company is only 6.7. The company's market value is seriously underestimated. Regardless of the additional dilution, the company's net profit for 2018-2020 will gradually increase to more than 300 million.

According to table 4.8, the CAGR 16% is above average. In the short-term trends, it is in the extremely weak market, investors can wait and see. The recent average cost is 5.28 yuan, and the stock price runs below the cost. In the bearish market, it is currently in a rebound phase. The funds are outflowing, and investors should be cautious in investing. The company's operating conditions are not good, and it has not received significant recognition from most institutions for a while, and the long-term investment value is average. The industry policy might not apply into practice as expected.

# BY-Health Co., Ltd (300146)

The company's overall business layout has expanded from dietary supplements to the big health industry, building a large health pharmaceutical industry ecosystem; the company has expanded from a purely offline pharmacy to a multi-channel expansion, and the e-commerce growth rate is the fastest; the company's products are excellent, more than 70 % of the raw materials are imported from all over the world. It promotes multi-brand strategy through outreach acquisition to achieve effective supplementation of categories. After the completion of the acquisition of Penta-vite and LSG, the company will successfully enter the children's dietary supplement and probiotic market, opening up new business growth points. In recent years, China's eye protection market has great potential. In the first half of the year, Jianshijia overfulfilled its goal.

It is estimated that the company's net profit will surpass 1 billion in 2018. Since the short-term strong market may end, investors should sell in time and wait and see. For the medium-term trend, there is an accelerated upward trend. The stock price runs below the cost. In the bull market, there is an accelerated upward trend. The company's funds have received market attention and many parties have strong momentum. The company is in good operating condition and most institutions believe that the long-term investment value of the stock is high. However, the industry is greatly impacted by the food safety accidents. The progress of large single products brand and e-commerce strategy are not as good as expected. The growth of health care products industry and the integration of probiotics do not match with the expectation.

#### 4.5.3 Profiting model based on medical information

Table 4. 9: Forecasting of medical information companies

many 1	Medical Instruments Co	Technology Group, Co. Ltd.		Neusoft Corportation (600718)	Avcon Information Technology Co.,Ltd (300074)	Enjoyor Co Ltd	Co.,Ltd (002065)	International Medicine Invest	Shanghai Yanhua Smartech Group Co Ltd (002178)	Beijing Egova	Elefirst Sci and Tech Co (300356)
2011	0,75	1	0,6963	0,34	0,506	0,34	0,7972	0,18	-0,07	0,62	0,81
2012	0,62	0,49	0,4643	0,37	0,816	0,49	0,8249	0,16	0,13	0,86	1,03
2013	0,4	0,75	0,6106	0,33	0,465	0,6	1,1167	0,17	0,26	0,75	0,36
2014	0,39	0,56	0,3899	0,21	0,094	0,68	0,7013	0,49	0,16	0,63	0,2764
2015	0,14	0,2783	0,2319	0,31	0,0635	0,18	0,7416	0,32	0,15	0,32	0,2454
2016	0,11	0,6413	0,2343	1,51	0,1337	0,23	0,5731	0,1	0,06	0,34	0,3888
2017	0,12	0,1439	0,3167	0,86	0,0638	0,21	0,2114	0,1	0,03	0,42	-0,9619
Average	0,361428571	0,551928571	0,420571429	0,561428571	0,306	0,39	0,709457143	0,217142857	0,102857143	0,562857143	0,306957
Forecast 2018	-0,09	0,1608	0,138	0,615	-0,135	0,2	0,3328	0,1	0,11	0,267	-0,
forecast by securities Traders		0,21	0,37	0,41			0,31	1,2		0,53	(

Net profits of list companies (RMB)	Zhuhai Hokai Medical Instruments Co Ltd (300273)	Technology	I to In	onders formation Co	Neusoft Corportation (600718)	Te	con Information chnology .,Ltd (300074)	Enjoyor Co Ltd (300020)	DHC Co.,Ltd	(002065)	XiAn International Medicine Invest Co Ltd (000516)		t ch Group	Beijing Eg Co Ltd(3000	ova and T	rst Sci Tech Co
2010		35 346 50	0 5	3 167 700	484 675 20	0 48	406 600	64 860 300	317 33		, ,	15 840		50 053 100	37.6	64 800
2011		44 292 90	_		417 069 00			82 550 100	420 95		127 253 300	-9 396		51 931 000	_	01 000
2012		52 849 90	_		456 313 90			111 135 000	569 17			17 562		72 229 900		56 100
2013	174 137 800	80 604 00	-	46 713 200	410 938 70	0 10	2 393 100	145 655 600	770 87			37 625	5 600	94 036 000	47 3	36 800
2014	223 085 600	120 971 6	00 1	89 928 900	255 692 00	0 31	.008 800	175 291 300	1 038 6	54 000	350 282 600	57 909		119 057 80	0 35 9	31 000
2015	105 818 900	152 503 7	00 2	30 820 500	386 357 20	0 33	505 000	111 210 000	1 141 8	78 400	241 024 900	102 22	23 900	121 333 70	0 395	57 900
2016	89 226 300	518 622 8	00 2	38 273 200	1 850 977 2	00 70	721 500	153 377 300	899 64	7 200	201 592 100	44 463	3 800	131 364 90	0 63 7	86 700
2017	92 710 500	229 039 9	00 3	26 507 000	1 058 488 4	00 34	320 300	138 654 200	663 79	9 600	198 390 800	25 203	3 200	169 594 90	0 -392	404 2
Average	116 632 338	154 278 9	13 1	72 332 763	665 063 95	0 56	576 663	122 841 725	727 78	9 338	187 916 863	36 429	9 000	101 200 16	3 -5 37	71 238
Forecast 2018 (billion)	0,092	0,	229	0,338		0,77	0,045	0,171		1,092	0,194		0,069	0,1	.76	-
forecast by securities traders (billion)		0,	334	0,389	0	,543				0,976	2,324			0,2	25	0
EPS Prediction(	RMB)		201	8 2019	2020	CAG	2	Profits P	redict	ion(Bill	lion)		2018	2019	2020	CA
Zhuhai Hokai Medical Instrument	s Co Ltd (300	273)	-0,0	-0,16	-0,36	599	Zhuhai H	okai Medical	Instrum	ents Co	Ltd (300273)		0,09	0,13	0,16	20
Winning Health Technology Grou	p Co Ltd (300	0253)	0,2	1 0,28	0,36	209	Winning I	Health Techno	ology G	roup Co	Ltd (300253)	)	0,33	0,45	0,58	20
Wonders Information Co Ltd (300		-	0,3	_	0,67	229	6 Wonders	Information C	Co Ltd (	300168)			0,39	_	0,72	_
Neusoft Corportation (600718)			0,4		-	139	6 Neusoft C	orportation (6	500718	)		$\neg$	0,54		0,79	_
Avcon Information Technology C	o.,Ltd (30007	4)	-0,1	4 -0,54	-0,27	269	6 Avcon Inf	ormation Tec	hnolog	y Co.,Lt	d (300074)		0,05	0,06	0,03	-1
Enjoyor Co Ltd (300020)			0,2	0 0,11	0,07	-309	6 Enjoyor C	o Ltd (30002	0)				0,17	0,19	0,20	
DHC Software Co.,Ltd (002065)			0,3	1 0,38	0,48	169	6 DHC Soft	ware Co.,Ltd	(00206	55)			0,98	1,17	1,50	1
XiAn International Medicine Inve	st Co Ltd (000	0516)	1,2	0 0,07	0,16	-499	XiAn Inte	mational Med	dicine I	nvest Co	Ltd (000516)	)	2,32	0,13	0,31	-4
Shanghai Yanhua Smartech Group	Co Ltd (002	178)	0,1	1 0,13	0,10	-29	6 Shanghai	Yanhua Smar	tech G	roup Co	Ltd (002178)		0,07	-0,13	0,02	_
Beijing Egova Co Ltd(300075)			0,5		0,87	189	6 Beijing E	gova Co Ltd(:	300075	)			0,23	0,29	0,37	1
Elefirst Science and Tech Co Ltd	(300356)		0,1	8 0,33	-1,42	-2999	6 Elefirst So	ience and Te	ch Co I	Ltd (300	356)		0,08	0,14	-0,12	-21

# Zhuhai Hokai Medical Instruments Co., Ltd (300273)

The company relies on the technical advantages and rich product reserves in the field of minimally invasive treatment of tumours and medical oxygen production. It is a comprehensive solution provider in the above-mentioned fields. According to the forecast results from table 4.9, for short-term trends, it is estimated to be -0.09 EPS which means the company is in the extremely weak market, investors can wait and see. The stock price runs below the cost. In the bearish market, it is currently in a rebound phase. The funds are outflowing, and investors should be cautious in investing. The company's operating conditions are still acceptable, and it has not received significant recognition from most organizations at this moment.

#### Neusoft Corporation (600718)

Neusoft Corporation's medical business is developing steadily. (1) The core business of regional health and hospital informationization continues to increase. 18H1 Company newly activated 300 customers including Health Committee and Hospitals. (2) The rapid development of the all-in-one service for hospital self-service. The company's medical self-service machine

market ranks first, currently covering 28 provinces, 400 hospitals, 130 top three hospitals. (3) Human resources and social security users continue to increase.

After deducting the impact of innovative business companies such as Neusoft Medical, Xikang, Neusoft Wanghai and Neusoft Ruichi on the company's net profit, the medical business and automotive electronics business are progressing smoothly. We estimate that the company's net profit for the year of 2018-2020 is reaching over 500 million yuan, with EPS approaches 0.6 yuan. According to the forecast results of table 4.9, the predication of 2018 EPS 0,44 is lower than last year's 0,86. What's more, the net profits in consecutive three years from 0,54, 0,66 to 0,79 billion is greatly decreased compared with 1,85 billion and 1,058 billion in 2016 and 2017 respectively. This might due to the change of medical business and automotive electronic business. For the short-term trends, it is in the extremely weak market, investors can wait and see. In the bearish market, it is currently in a rebound phase.

Risk warning: Subsidiary business and the autopilot business progress slower than expected.

# Avcon Information Technology Co., Ltd (300074)

According to the forecast results from table 4.9, the predication of EPS in 2018 turns out to be -0,135. Avon is in the process of weak decline, it can be sold on rallies and will not be considered for purchase. In the bearish market, it is currently in a rebound phase. In the long term, the EPS and net profits do not show any improvement. It has not received significant recognition from most organizations at this moment.

# Enjoyor Co., Ltd (300020)

According to the forecast results from table 4.9, the financial strategy could be constructed as below. The EPS prediction for 2018 maintain the same as last year. And 0,2 EPS is relatively lower than average 0,39. It is now in the extremely weak market, investors can wait and see. For the medium-term trend, there is a tendency to accelerate the decline. However, the net profits struggle to keep a 5% growth in the long term. It has not received significant recognition from most organizations for the time being.

Risk warning: Smart city business grows less than expectation. The systematic valuation is adjusting backward. PPP mode progress is not as good as expected. The progress of new business is not optimistic. Government project capital return and outreach investment integration does not match with the expectations.

#### Xi'an International Medicine Invest Co., Ltd (000516)

Relying on Xi'an High-tech Hospital's platform and experience, the company will gradually expand the medical health layout. Taking Shangluo City as a starting point, a large-scale regional medical service network in Shaanxi Province and Northwest China was established. The construction of Shangluo International Medical Center marks the company's pace of opening out the medical service network in Xi'an. The company is expected to gradually cover the remaining 8 cities in Shaanxi Province and establish medical service networks in other regions. High quality medical resources are extremely scarce in the northwest region. The company is expected to expand toward the five northwestern provinces and establish a large-scale regional medical service network in Shaanxi Province and the Northwest.

The company signed a cooperation agreement with Ali Health to build the Ali Health Xi'an High-tech Internet Hospital, which will share medical data within the company's hospital system, realize online and offline integration, and complete medical service system for graded diagnosis and treatment. The valuation result in table 4.9 in 2018 is 194 million. However there two official securities traders' forecast average is around 2,3 billion while the forecast of 2019 and 2020 maintains at 0,13 and 0,31 billion net profits. These dramatic forecast changes might be caused by internal structure reorganizing. The CAGR -49% is abnormal here. We might keep the valuation of 194 million for 2018 instead of 2,3 billion from other securities traders in case of their mistakes. Investor should always be caution and keep the necessity of knowing the forecasting prediction before relying on other cited figures. Although the company actively cooperates with famous medical institutions and medical schools, and introduces professional teams, technologies and management concepts from countries and regions such as the United

States, Britain, South Korea and Taiwan. The number of open beds in hospitals and the introduction of hospital experts might not be that satisfactory as expected.

## Shanghai Yanhua Smartech Group Co., Ltd (002178)

According to the moderate forecast results from table 4.9, the financial strategy could be constructed as below. The short-term market conditions may pick up, and you can buy stocks in moderation and make short-term rebounds. For the medium-term trend, the midline has been found to sell signals since the net profits might drop to -0,13 shown in table 4.9. The stock price runs below the cost. In the bear market, there is a tendency to accelerate the decline. With the negative CAGR of -2% and -30%, the funds are outflowing, and investors should be cautious in investing.

# Beijing Egova Co., Ltd (300075)

The company actively promoting the urban digitalization, refinement and intelligence. Based on the urban public information platform, the company comprehensively applied the emerging technologies such as Internet of Things, cloud computing and big data. It integrates public facilities information and public infrastructure services such as population, transportation, energy, and construction, and expand the functions of digital city management platforms. Focusing on the "Grid+" smart city construction model with digital political characteristics, the company has achieved good results in a series of fields such as the new generation of multinetwork convergence e-government system in smart city management, smart water management, smart environmental protection, smart city management network, smart city data operation service, smart land resources and urban planning management. Applying the "grid+" smart city construction model, the number of new orders has increased significantly. However, the industry competition is intensifying, these orders might not progress as much as expected. Based on the forecast data in table 4.9, the investors can wait and see in the short-term period weak market. The EPS in 2020 is predicted to increase to be the highest 0,87 yuan while the company's net profits forecast of 0,23, 0,29,0,37 maintain moderate level.

#### Elefirst Science and Tech Co., Ltd (300356)

The acquisition and implementation of related projects will further consolidate the industrial foundation of the copyright cloud, and the company's digital copyright business will develop rapidly. Based on some negative forecast results from table 4.9 such as -1,42 EPS in 2020, it is likely to be in the bear market and has a tendency to accelerate the decline. The midline has been found to sell signals. It can be sold on rallies and will not be considered for purchase. For the risk, the progresses of the copyright cloud project and the M&A integration do not maintain within the expected risk level.

# 4.5.4 Profiting model based on internet hospital

Table 4. 10: Forecasting of internet hospital

EPS(Yuan)earnings per sha	re			ncare Co 00150)	Guiyan Longma info&T	aster echn Co Ltd	Hefei Optoele Techno (00269	-	Med	san dical S Ltd (60		Tech
2011	-		0,0243		1.45	3)	0.89		0.068			
2012		$\overline{}$	0,01		1.72		0.99		0.10			
2013			0.28		0.53		0.8		-0.171			
2014			0,09		0,33		0,7426		0,07	76		
2015			0,119	6	0,29		0,4281		-0,2	06		
2016			1,662	3	0,25		0,4576		-0,1	67		
2017			0,389	3	0,29		0,5394		0,12	27		
Average			0,36	792857	0,6	94285714	0,6	92528571	-	-0,02	4571	L429
Forecast 2018				0,398		-0,257		0,337	1		-	0,08
forecast by securities comp	any							0,65	<u> </u>			
Net profits of list companie	s (RN	ИB)		Yihua Healthca Ltd (000)	150)	Guiyang Longmaster info&Techn (300288)		Optoelectro Technology (002690)	Inc	Shan Medi &Tec	ghai cal ch Co	
2010 2011			$\dashv$	8 533 0 7 879 8		36 664 300 58 142 500		150 396 7		_	616 9 90 10	
2012				2 330 8		87 785 900		168 576 3			65 80	
2013				91 901	500	56 303 600	0	207 998 4	100	-58	453 800	
2014				29 822		34 749 800	0	250 983 7		25 983 70		00
2015				51 612							70 243 800 56 880 600	
2016 2017			-	744 386 174 327		97 141 600		364 665 1		_		
Average			138 849					234 240 638				
Forecast 2018 (billion	n)				0,173		0,099	C	,384	-	0,008	3956
forecast by securities traders	s (bill	lion)						C	,441			
				+ +								
EPS Prediction(RMB)	2018	2019	202	0 CAGR		Profits Predicti	on(Billion	1)	2018	2019	2020	CAG
Yihua Healthcare Co Ltd (000150)	0,40	2,48	0,6	9 20%	ihua Health	ncare Co Ltd (0001	50)		0,17	0,90	0,40	329
Guiyang Longmaster info&Techn Co Ltd (300288)	-0,26	-0,36	-0,6	1 33%	luiyang Lor	gmaster info&Tec	hn Co Ltd	(300288)	0,10	0,11	0,10	-19
Hefei Meiya Optoelectronics Technology Inc (002690)	0,65	0,79	0,9					0,54	0,65	149		
Winsan Shanghai Medical Scie & Tech Co Ltd (600767)	-0,08	-0,08	0,0	7 1079/ V	Vincon Chan	ghai Medical Scie	ATack Co.	1.4 (200727)	-0,01	-1,00	0,03	-2489

# Yihua Healthcare Co., Ltd (000150)

The company is committed to creating a health industry ecosystem that combines medical care and nutrition, and is fully deployed in hospitals, medical logistics, and pensions. Thus, it divests medical equipment assets. The big health industry chain has gradually formed, and the synergy between various business segments has been continuously enhanced.

Based on forecast results from table 4.10, in the short term, investors can buy on dips and do not consider shorting. For the medium-term trend, a rebound is observed with dramatically prediction of 2,48 EPS. The stock price runs above the cost. For the category of internet hospitals, the 32% CAGR of net profits are relatively high. Internet hospital with the forecast of 0,90 billion net profits in 2019 and 0,4 billion in 2020, it proves to be fluctuating during the process. Due to the internet hospital license reissuing and regulation from the government, investors should be caution in this category investment.

#### Guiyang Longmaster info&Tech Co., Ltd (300288)

According to the decreasing forecast from table 4.10 such as -0,26, -0,36 and -0,61Eps, there is a tendency to accelerate the decline. The stock price runs below the cost. In the bear market, the funds are outflowing, and investors should be cautious in investing. Although the company is operating with stable net profits around 0,1billion, most institutions believe that the long-term investment value of the stock is average.

#### Hefei Meiya Optoelectronics Technology Inc. (002690)

The company actively innovated its marketing method and launched the WeChat B2C Mall "Meiya Medical Flagship Store", which increased the direct sales form of the group tour. In addition, the company's "Miaosi" chair side repair system has also made positive progress, and will further enrich the product line in the field of oral imaging; in the future, the company will continue to launch high-end medical imaging products such as ENT CT and orthopaedic CT. Compared with traditional CT, CBCT has the advantages of low effective dose, short exposure time, high resolution and low cost. China's public market CBCT relies on imports, and the

private market gradually achieves localization. It is estimated that in the next 3-5 years, the size of the CBCT market in China's private dental industry will exceed 15 billion yuan. With high cost performance and excellent after-sales service, Meiya CBCT has gradually increased its sales in recent years. In 2017, oral CBCT achieved sales of nearly 1,000 units, achieving revenue of 260 million yuan, and its domestic market share is estimated at more than 30%. The company took the lead in innovating the sales model of oral medical devices and increased the direct sales form of the group tour.

Based on forecast results from table 4.10, in the process of a rise, investors can buy on dips and do not consider shorting. For the medium-term trend, the upward trend has slowed down. In the bull market, the uptrend has slowed down. The forecast of 0,44, 0,54, 0,65 billion net profits rank first among the four chosen internet hospitals. Investors could increase their attention in internet hospital specialized in dental service.

Risk warning: The market competition is fierce. The technology research and product innovation are not developed as expected. The development of development of chairside repair system, ENT CT, orthopaedic CT is less than expected. Exchange gains, losses and other operating income has an uncertain impact on the company's performance. Oral health care digitalization ecological chain development, robotics technology and the oral cloud service platform are still uncertain. The company is still not comparable with the domestic and international dental medical listed companies.

#### Winsan Shanghai Medical Scie & Tech Co., Ltd (600767)

With the first two years' negative forecasting increase to 0,07 EPS and 0,03 billion net profits, the company is struggling from debt to profits. Investors should sell in time and wait and see. This is one of the companies with the most negative past net profits records. The company's operating conditions need to be further examined. Investors should be caution in internet hospital investment since the profiting situation is not well recognized yet.

# 4.5.5 Profiting model based on Medicare fees

Table 4. 11: Forecasting of Medicare fees companies

EPS(Yuan)earnings per share	Searainbow Holding Corp. (000503)		Wonders information Co Ltd (300168)	DHC software Co., Ltd (002065)
2011	0,02	1	0,6963	0,7972
2012	0,0268	0,49	0,4643	0,8249
2013	0,0144	0,75	0,6106	1,1167
2014	0,0278	0,56	0,3899	0,7013
2015	0,0257	0,2783	0,2319	0,7416
2016	0,0312	0,6413	0,2343	0,5731
2017	0,0186	0,1439	0,3167	0,2114
Average	0,0235	0,551928571	0,420571429	0,70945714
Forecast 2018	0,025	0,16	0,138	0,33
forecast by securities company	0,02	0,21	0,37	0,31

Net profits of list companies (RMB)	Searainbow Holding Corp. (000503)	Winning Health Technology Group Co Ltd (300253)	Wonders Information Co Ltd (300168)	DHC Software Co.,Ltd (002065)
2010	12 164 200	35 346 500	53 167 700	317 334 400
2011	18 000 700	44 292 900	81 815 000	420 955 300
2012	24 094 600	52 849 900	111 436 600	569 175 300
2013	12 978 200	80 604 000	146 713 200	770 870 500
2014	24 977 300	120 971 600	189 928 900	1 038 654 000
2015	23 063 400	152 503 700	230 820 500	1 141 878 400
2016	28 021 200	518 622 800	238 273 200	899 647 200
2017	16 674 900	229 039 900	326 507 000	663 799 600
Average	19 996 813	154 278 913	172 332 763	727 789 338
Forecast 2018 (billion)	0,024	0,229	0,338	1,092
forecast by securities traders (billion)	0,074	0,334	0,389	0,976

EPS Prediction(RMB)	2018	2019	2020	CAGR	Profits Prediction(Billion)	2018	2019	2020	CAGR
Searainbow Holding Corp. (000503)	0,02	0,15	0,90	256%	Searainbow Holding Corp. (000503)	0,07	0,48	0,81	122%
Winning Health Technology Group Co Ltd (300253)	0,21	0,28	0,36	20%	Winning Health Technology Group Co Ltd (300253)	0,33	0,45	0,58	20%
Wonders Information Co Ltd (300168)	0,37	0,47	0,67	22%	Wonders Information Co Ltd (300168)	0,39	0,50	0,72	23%
DHC Software Co.,Ltd (002065)	0,31	0,38	0,48	16%	DHC Software Co.,Ltd (002065)	0,98	1,17	1,50	16%

# Searainbow Holding Co., Ltd (000503)

From table 4.11, we found the three years' CAGR rate 256% and 122% are dramatically large. It might be explained by the significant change of Searainbow Holding to the new "China Reform Health Management & Services Group Co., Ltd" central enterprise status. The "1+1+N" health care service model that the company landed in Zhenjiang includes "a data resource centre, a collaborative application platform, and an extended application service package (N)". The extended application service package (N) provided by the company includes consumables procurement and supervision for medical insurance fund management institutions, drug and equipment supervision, medical insurance fund profit and loss forecast analysis platform,

medical joint resource sharing for hospitals, performance evaluation of medical institutions, and drug-oriented company's medical insurance payment standard service, C-side chronic disease management and other products. It helps the company to extend the service target from the G end to the B-end and C-end users of hospitals, pharmaceutical companies, etc.

The company's central enterprise qualifications continue to provide strong guarantee for the company to carry out healthy big data applications in various places and TPA services for commercial health insurance. After the establishment of the Medical Insurance Bureau, the medical insurance fund will shift from passive payment in the past to active control fees, post-regulation to pre-regulation, and from regulatory price levels to regulatory price behaviour. The active and meticulous management of medical insurance is expected to promote the rapid development of healthy big data applications. At present, the company has upgraded the original basic audit service to the comprehensive management service of medical insurance fund (including intelligent audit, inter-disciplinary audit, DRGs, medical insurance payment price standard, supplementary payment, chronic disease management, etc.).

In the future, the company will use the medical insurance fund refined management cloud platform charges the service fee and individual service for the project and the drug payment service. The company's commercial insurance TPA is expected to achieve a profit model based on the proportion of commercial insurance flow. The company's operating conditions are still acceptable, and most institutions believe that the long-term investment value of the stock is high, investors can increase their attention. For the risk, health insurance service charging model might fall below expectations. The promotion of commercial insurance business was slow and the market competition was intensified.

# Winning Health Technology Group Co., Ltd (300253)

The company signed a Framework Cooperation Agreement with Ant Financial and its related party, Shanghai Yunxin. The parties will jointly build a leading big data ecosystem and focus on the "Internet + medical health" field. Ant Financial, Shanghai Yunxin and their respective related parties' capacities in the block chain, financial cloud, credit certification,

Group and Winning Internet's related business capabilities in the medical field. Based on the advantages of their respective platforms and services, the application of pilot medical payment and Alipay is integrated, it can make full use of Alipay's leading third-party payment technology and user real-name authentication capabilities to carry out medical expenses payment cooperation. The EPS is expected to be grow steadily. With the 20% CAGR both in EPS and net profits, the stock is in a short market and may have a short-term rebound.

Risk warning: The development of medical information industry is less than expected; the competitive landscape has deteriorated. The development of the medical IT industry and innovative business advance slowly. The sustainability of the promotion of Internet + medical policy is uncertain. The policy change risk exists.

# Wonders Information Co., Ltd (300168)

The company develop well in following industries. 1) Medical and health care: It won the bid for the "National Health Protection Information Platform" of the National Health and Health Committee. The platform will collect the personal health records and electronic medical record data of the whole country; 2) Medical insurance and medicine: The company will build the "Sunshine Pharmaceutical Purchasing Platform". It fully covers pharmaceutical, equipment and high-value consumables in Shanghai. 3) Financial insurance: The company launched an online and offline unified payment system for medical, education, pension, culture and other industries to help the multi-payment of mobile Internet services. The innovation of commercial insurance is also carried out based on the company's medical health cloud. Relying on the advantages of regional medical and health platform, the company will realize new business areas including free medical examination, credit payment and electronic claims which lead the new direction of the commercial insurance industry.

The smooth implementation of convertible bonds will help the company's long-term development. The Yaan Smart Public Safety System PPP project will bring the company with 10 years 'stable operation service revenue. Relying on the history of the company's R&D of health

cloud, medical cloud, pharmaceutical cloud, insurance cloud and smart city data brain and the company's existing operations in other provinces and cities, the company's subsequent innovation business development could be optimistic. The company is in a transitional period, and the report has not fully reflected the potential of innovative business. For the financial strategy, in the process of a strong rise, investors can buy on dips and do not consider shorting. There is an accelerated upward trend in the medium-term period. The stock price runs above the cost. In the bull market, there is an accelerated upward trend. With the CAGR above 20% and steadily growing EPS and net profits, the long-term investment value of the stock is high. Risk warning: Increased competition leads to further decline in gross profit margin.

#### DHC Software Co., Ltd (002065)

DHC Software Co., Ltd has more than 500 hospitals' customers, of which more than 300 are tertiary hospitals, and 25% of the country's top 100 hospitals use Donghua Medical's digital hospital product. In this cooperation, both parties set up the strategic goals of "one chain and three clouds". It hopes to use the health chain as a bridge to connect the Public Health cloud (for the G-terminal health care committee and the medical insurance bureau) and the medical cloud (for the B-level medical institutions at all levels) and the health cloud (for C-end patients). Through the health chain as a link, both sides will jointly establish a "health chain application alliance" with a number of top medical institutions in China to support medical record sharing, prescription circulation, commercial insurance transactions, jointly regulate and health medical big data applications development. The specific content of the company's cooperation with Tencent includes six major solutions - regional medical joint solutions, medical insurance joint solutions, medical union cloud joint solutions, smart hospital joint solutions, cloud HIS joint solutions and Internet + medical health Joint solution. Through cooperation with Tencent, the company will gradually expand the full range of iMedical products; on the other hand, it will explore innovative business models such as prescription circulation and medical insurance mobile payment.

Investment suggestion: As an outstanding representative of domestic IT enterprises, this company has joined forces with Tencent to achieve high-level all-round cooperation, which is expected to set a new benchmark for the industry and capital market. Investors could be very optimistic about the company's development prospects for transforming cloud service providers with this cooperation opportunity. Table 4.11 shows that the company's profits are predicted to surpass 1 billion yuan from 0,98 to 1,50 in 2020. The Buy-A rating is well guaranteed.

Risk warning: System integration business gross margin continues to decline.

#### 5. Conclusions

From the analysis of the major investment in the 32 selected companies' stocks, it is obvious to find that Tencent and Ali have major investments in internet medical industry. The traditional players in the pharmaceutical industry, including Jointown, Shanghai Pharmaceutical, Kangmei Pharmaceutical, Lepu Medical and others, are all gearing up to different entrances and infiltrate through multiple areas such as medical e-commerce, wearable devices, cloud service and etc. It is worth mentioning that the medical e-commerce sector also attracts the expansion of Internet medical companies. In addition to traditional pharmaceutical and medical equipment companies, companies from real estate, commercial department stores and other industries are also exploring Internet medical. Even some listed companies directly transform themselves to develop Internet medical as their main business.

As shown in the previous figure, some medical device companies have carried out some high-quality mergers and acquisitions, which are favoured by capital with high returns on stock prices and market capitalization. A listed company is a platform for capital operation and can fully utilize various equity and bond financing instruments. We believe that companies that are aggressive in management and well-funded have the ability to implement platforms through mergers and acquisitions. They will be able to grasp the current wave of integration of the domestic equipment industry, through the combination of capital and industry, to achieve the value of the integration and re-evaluation. Thus, we hope to see the birth of the platform companies.

Innovative drug labels that benefit from national policy support are recommended. The pharmaceutical industry is a typical Winners take all type. A few of the big winners have dominated the vast majority of profits for the strong sales and R & D. The single product determines the short-term growth while the multi-variety echelon of "tradition + new + research" determines long-term growth. The stock picking depends on the holding time, if it is short-term (within 1 year): growth is the main factor, supplemented by core competitiveness. The small market value - single variety - high growth type could be a good choice. If investors want long-term investment, or strategic investment, then the idea of stock selection is the core competitiveness and steady growth.

It is recommended that pharmaceutical production and distribution enterprises participate in the pharmaceutical service logistics supply chain reform in public hospitals such as Kangmei Pharmaceutical, Bai Yunshan, Cachet, Nanjing Medicine and etc. Under the expectation of the influx of industrial capital into the medical service industry, the investment in medical informanization is also increasing such as Searainbow Holdings, Winning Software, and other stocks. At present, the entire medical service industry is blooming and is expected to become the focus of the short-term and medium-term market. In this context, investors are advised to track the leading varieties of the medical information companies, and actively increase investment in the medical service industry especially focusing on tracking pharmaceutical stocks that have entering the medical information and service industry. Among the four selected Medicare fee companies, Winning Health, Wonders and DHC software are the same companies mentioned in the medical information category. Beijing and Shanghai are majorly the essential cities which innovates in Medicare fees and service. The significant change of Searainbow Holding to the new "China Reform Health Management &Services Group Co., Ltd" central enterprise status is a good spot for investors to focus on.

In the construction of medical health digital identity and security system, it is important to strengthen the implementation of standards and ensure the medical and health data security. Many corporate Internet medical companies are step by step required to apply for various

license and qualifications. Some policies in China, such as medical insurance payments and multi-point practice, also hinder the development of Internet medical care. The stock investment especially in the internet hospital are still demanding the prove from the market. Thus, it is wise to avoid the risk in the preliminary situation. Investors might need to update the relevant short-term forecasting data from time to time for more accurate predication in certain time period.

There are also lots of BAT's investment are start-ups which are not included in the stock lists. These selected 32 stocks based on five categories of profiting model do not represent the total market of internet medical industry. The suggested financial strategy and risk warning are guidelines for make better judgement of the right investment decisions.

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# Appendix 1 Basic data

Table 1.1: EPS (Yuan) for five categories of concept stocks

intelligent equipment/cloud healthcare Management	2017	2016		2014		2012	2011
Andon Health Co Ltd (002432)	-0,38	0,04	-0,41	0,03	-0,02	0,03	0,08
Sinocare Inc. (300298)	0,6346	0,3611	0,5509	0,99	1,25	1,56	1,34
Le Pu Medical Technology (300003)	0,5053	0,3913	0,6415	0,5212	0,4454	0,4966	0,5827
Inner Mongolia Furui Medical Co., Ltd (300049)	0,27	0,4596	0,35	0,7	0,04	0,33	0,42
Guangdong Biolight Meditech Co., Ltd (300246)	0,3939	0,46	0,16	0,2314	0,2	0,5	0,98
Eagle Electronics (002579)	0,06	0,31	0,08	0,08	0,05	0,06	0,38
Shenzhen Fenda Technology Co., Ltd (002681)	0,34	0,31	0,48	0,48	0,87	0,56	0,84
Pharmacy ecommerce							
Jointown Pharmaceutical Group Co., Ltd (600998)	0,87	0,54	0,43	0,36	0,34	0,29	0,26
Shanghai Pharm Ord A (601607)	1,3093	1,1887	1,0699	0,9636	0,8341	0,7635	0,8437
Yixintang Pharmaceutical (002727)	0,812	0,6788	1,331	1,305	1,234	0,935	0,69
Cachet Pharmaceutical Co., Ltd (002462)	1,05	0,89	0,7207	0,95	0,5424	0,2717	0,2653
Realcan Pharmaceutical (002589)	0,67	1,005	0,44	0,83	1,49	1,18	1,03
Shijiazhuang Yiling Pharmaceutical (002603)	0,45	0,48	0,39	0,63	0,44	0,34	1,17
Kangmei Pharmaceutical (600518)	0,784	0,667	0,623	1,04	0,855	0,655	0,466
Tai Antang Pharmaceutical (002433)	0,38	0,32	0,26	0,3	0,48	0,88	0,74
BY-Health Co Ltd (300146)	0,52	0,37	0,89	0,77	1,29	1,28	1,7
medical information							
Zhuhai Hokai Medical Instruments Co Ltd (300273)	0,12	0,11	0,14	0,39	0,4	0,62	0,75
Winning Health Technology Group Co Ltd (300253)	0,1439	0,6413	0,2783	0,56	0,75	0,49	1
Wonders Information Co Ltd (300168)	0,3167	0,2343	0,2319	0,3899	0,6106	0,4643	0,6963
Neusoft Corporation (600718)	0,86	1,51	0,31	0,21	0,33	0,37	0,34
Avcon Information Technology Co., Ltd (300074)	0,0638	0,1337	0,0635	0,094	0,465	0,816	0,506
Enjoyor Co Ltd (300020)	0,21	0,23	0,18	0,68	0,6	0,49	0,34
DHC Software Co., Ltd (002065)	0,2114	0,5731	0,7416	0,7013	1,1167	0,8249	0,7972
Xi'an International Medicine Invest Co Ltd (000516)	0,1	0,1	0,32	0,49	0,17	0,16	0,18
Shanghai Yanhua Smartech Group Co Ltd (002178)	0,03	0,06	0,15	0,16	0,26	0,13	-0,07
Beijing Egova Co Ltd (300075)	0,42	0,34	0,32	0,63	0,75	0,86	0,62
Elefirst Science and Tech Co Ltd (300356)	-0,9619	0,3888	0,2454	0,2764	0,36	1,03	0,81
internet Hospital							
Yihua Healthcare Co Ltd (000150)	0,3893	1,6623	0,1196	0,09	0,28	0,01	0,0243
Guiyang Longmaster info &Tech Co Ltd (300288)	0,29	0,25	0,29	0,33	0,53	1,72	1,45
Hefei Meiya Optoelectronics Technology Inc. (002690)	0,5394	0,4576	0,4281	0,7426	0,8	0,99	0,89
Winsan Shanghai Medical Scie &Tech Co., Ltd (600767)	0,127	-0,167	-0,206	0,076	-0,171	0,101	0,068
Medicare fees							
Searainbow Holding Corp. (000503)	0,0186	0,0312	0,0257	0,0278	0,0144	0,0268	0,02

Table 1.2: Net profits of list companies (RMB)

intelligent equipment/cloud healthcare	2013	2012	2011	2010
Andon Health Co Ltd (002432)	-¥9 168 300	¥6 982 900	¥20 806 700	¥23 716 100
Sinocare Inc. (300298)	¥165 306 300	¥128 826 100	¥88 161 400	¥54 858 800
Le Pu Medical Technology (300003)	¥361 645 500	¥403 273 300	¥473 157 700	¥410 482 700
Inner Mongolia Furui Medical Science Co Ltd (300049)	¥4 905 400	¥41 137 500	¥52 369 200	¥46 853 100
Guangdong Biolight Meditech Co., Ltd (300246)	¥28 923 700	¥36 505 900	¥33 775 300	¥32 991 300
Eagle Electronics (002579)	¥11 825 600	¥9 449 300	¥33 993 200	¥40 302 500
Shenzhen Fenda Technology Co., Ltd (002681)	¥130 693 100	¥75 703 800	¥94 426 300	¥87 699 100
Pharmacy ecommerce	2013	2012	2011	2010
Jointown Pharmaceutical Group Co., Ltd (600998)	¥477 927 800	¥412 720 800	¥374 134 200	¥359 543 500
Shanghai Pharm Ord A (601607)	¥2 213 577 900	¥2 052 871 700	¥2 042 238 500	¥1 456 194 800
Yixintang Pharmaceutical (002727)	¥240 853 300	¥182 551 400	¥134 709 500	¥102 945 200
Cachet Pharmaceutical Co., Ltd (002462)	¥130 168 800	¥65 209 600	¥63 682 500	¥48 542 400
Realcan Pharmaceutical (002589)	¥143 554 900	¥110 651 400	¥84 057 300	¥62 109 200
Shijiazhuang Yiling Pharmaceutical (002603)	¥244 291 500	¥185 806 400	¥454 071 100	¥315 559 100
Kangmei Pharmaceutical (600518)	¥1 879 817 000	¥1 441 191 500	¥1 005 031 000	¥715 522 700
Tai Antang Pharmaceutical (002433)	¥132 896 600	¥88 053 500	¥74 152 600	¥56 449 000
BY-Health Co Ltd (300146)	¥421 686 300	¥280 354 300	¥186 435 100	¥92 105 900
medical information	2013	2012	2011	2010
Zhuhai Hokai Medical Instruments Co Ltd (300273)	¥174 137 800	¥123 777 300	¥79 052 400	¥45 249 900
Winning Health Technology Group Co Ltd (300253)	¥80 604 000	¥52 849 900	¥44 292 900	¥35 346 500
Wonders Information Co Ltd (300168)	¥146 713 200	¥111 436 600	¥81 815 000	¥53 167 700
Neusoft Corporation (600718)	¥410 938 700	¥456 313 900	¥417 069 000	¥484 675 200
Avcon Information Technology Co., Ltd (300074)	¥102 393 100	¥81 644 900	¥50 613 100	¥48 406 600
Enjoyor Co Ltd (300020)	¥145 655 600	¥111 135 000	¥82 550 100	¥64 860 300
DHC Software Co., Ltd (002065)	¥770 870 500	¥569 175 300	¥420 955 300	¥317 334 400
Xi'an International Medicine Invest Co Ltd (000516)	¥121 535 800	¥111 045 700	¥127 253 300	¥152 209 700
Shanghai Yanhua Smartech Group Co., Ltd (002178)	¥37 625 600	¥17 562 200	-¥9 396 000	¥15 840 200
Beijing Egova Co Ltd (300075)	¥94 036 000	¥72 229 900	¥51 931 000	¥50 053 100
Elefirst Science and Tech Co Ltd (300356)	¥47 336 800	¥72 656 100	¥52 501 000	¥37 664 800
internet Hospital	2013	2012	2011	2010
Yihua Healthcare Co Ltd (000150)	¥91 901 500	¥2 330 800	¥7 879 800	¥8 533 000
Guiyang Longmaster info & Tech Co., Ltd (300288)	¥56 303 600	¥87 785 900	¥58 142 500	¥36 664 300
Hefei Meiya Optoelectronics Technology Inc. (002690)	¥207 998 400	¥168 576 300	¥132 547 900	¥150 396 700
Winsan Shanghai Medical Scie &Tech Co Ltd (600767)	-¥58 453 800	¥34 465 800	¥23 190 100	-¥33 616 900
Medicare fees	2013	2012	2011	2010
Searainbow Holding Corp. (000503)	¥12 978 200	¥24 094 600	¥18 000 700	¥12 164 200
Three same companies: Winning, Wonders and DHC				

intelligent equipment/cloud healthcare	2017	2016	2015	2014
Andon Health Co Ltd (002432)	-¥165 861 200	¥14 497 900	-¥150 761 300	¥10 197 500
Sinocare Inc. (300298)	¥257 971 900	¥115 198 300	¥143 663 000	¥197 339 200
Le Pu Medical Technology (300003)	¥899 085 300	¥679 255 700	¥520 890 600	¥423 192 600
Inner Mongolia Furui Medical Science Co Ltd (300049)	¥71 866 900	¥121 047 900	¥91 685 200	¥87 235 300
Guangdong Biolight Meditech Co., Ltd (300246)	¥57 547 300	¥67 143 500	¥23 919 000	¥33 801 500
Eagle Electronics (002579)	¥23 744 000	¥110 986 400	¥29 240 000	¥19 358 500
Shenzhen Fenda Technology Co Ltd (002681)	¥443 291 400	¥385 255 700	¥293 356 700	¥145 424 500
Pharmacy ecommerce	2017	2016	2015	2014
Jointown Pharmaceutical Group Co Ltd (600998)	¥1 445 510 100	¥876 741 800	¥694 534 900	¥560 706 800
Shanghai Pharm Ord A (601607)	¥3 520 645 600	¥3 196 394 600	¥2 876 989 100	2 591 129 100
Yixintang Pharmaceutical (002727)	¥422 714 100	¥353 377 000	¥346 260 400	¥297 309 100
Cachet Pharmaceutical Co., Ltd (002462)	¥263 641 600	¥223 099 600	¥172 976 500	¥228 060 100
Realcan Pharmaceutical (002589)	¥1 008 211 800	¥590 758 900	¥235 938 500	¥180 986 800
Shijiazhuang Yiling Pharmaceutical (002603)	¥540 705 100	¥532 686 100	¥430 491 000	¥354 495 200
Kangmei Pharmaceutical (600518)	¥4 100 926 100	¥3 340 403 600	¥2 756 734 600	2 285 879 100
Tai Antang Pharmaceutical (002433)	¥290 398 600	¥243 327 600	¥190 123 500	¥186 306 900
BY-Health Co Ltd (300146)	¥766 255 600	¥535 211 800	¥635 496 100	¥502 595 000
medical information	2017	2016	2015	2014
Zhuhai Hokai Medical Instruments Co Ltd (300273)	¥92 710 500	¥89 226 300	¥105 818 900	¥223 085 600
Winning Health Technology Group Co Ltd (300253)	¥229 039 900	¥518 622 800	¥152 503 700	¥120 971 600
Wonders Information Co Ltd (300168)	¥326 507 000	¥238 273 200	¥230 820 500	¥189 928 900
Neusoft Corporation (600718)	¥1 058 488 400	¥1 850 977 200	¥386 357 200	¥255 692 000
Avcon Information Technology Co., Ltd (300074)	¥34 320 300	¥70 721 500	¥33 505 000	¥31 008 800
Enjoyor Co Ltd (300020)	¥138 654 200	¥153 377 300	¥111 210 000	¥175 291 300
DHC Software Co., Ltd (002065)	¥663 799 600	¥899 647 200	¥1 141 878 400	1 038 654 000
Xi'an International Medicine Invest Co Ltd (000516)	¥198 390 800	¥201 592 100	¥241 024 900	¥350 282 600
Shanghai Yanhua Smartech Group Co Ltd (002178)	¥25 203 200	¥44 463 800	¥102 223 900	¥57 909 100
Beijing Egova Co., Ltd (300075)	¥169 594 900	¥131 364 900	¥121 333 700	¥119 057 800
Elefirst Science and Tech Co., Ltd (300356)	-¥392 404 200	¥63 786 700	¥39 557 900	¥35 931 000
internet Hospital	2017	2016	2015	2014
Yihua Healthcare Co Ltd (000150)	¥174 327 500	¥744 386 100	¥51 612 700	¥29 822 600
Guiyang Longmaster info &Tech Co Ltd (300288)	¥97 141 600	¥85 145 800	¥98 398 600	¥34 749 800
Hefei Meiya Optoelectronics Technology Inc. (002690)	¥364 665 100	¥309 333 300	¥289 423 700	¥250 983 700
Winsan Shanghai Medical Scie &Tech Co Ltd (600767)	¥43 422 200	-¥56 880 600	-¥70 243 800	¥25 983 700
Medicare fees	2017	2016	2015	2014
Searainbow Holding Corp. (000503)	¥16 674 900	¥28 021 200	¥23 063 400	¥24 977 300