

**A Work Project, presented as part of the requirements for the Award of a Master Degree in  
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**Internship Report**

**How to improve the risk management system of Zhongtai securities company**

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# How to improve the risk management system of Zhongtai securities company

## Abstract

According to the research, it is shown that the economic profits losses caused by single profit model that treats only one business as core business and potential risks may be reduced by the risk management system. To verify this, I did an internship in Zhongtai securities company to learn about its risk management system and give proper suggestions to improve this system . Finally, this report will also attempt to predict the future development of Zhongtai securities company under the new policy of the Belt and Road.

**Keywords:** profit model, risk, risk management, future development

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## **Literature Reviews**

### **Profit model**

According to the research from Wu (2003) ,The present profit model of chinese securities companies has always been the “channel” profit model .Besides that , Ma (2015) and Gao(2016) think that chinese securities companies’ income is mainly from brokerage business, investment banking business and transaction investment business. Their income structures are similar, but the profit model is single. (Seen in table 1)

In a word, the present profit model lacks diversification characteristic and only focuses on one core business, which may cause great economic profit loss if the core business is not popular, however, improving the risk management system may help decrease this kind of loss.

### **Potential risk**

From the research of Gao (2016),it is obvious that the securities companies still suffer from following risks: solvency risk caused by increasing asset-liability and leverage ratios(Seen in table 2), interest rate risk, market fluctuation risk, liquidity risk and credit risk. However, the

recent risk management system is not good enough to cover all the risks and even the loss from them, hence, improving the risk management system may help reduce the loss.

## **Risk management system**

### **Current situation**

According to the research of Gao (2016), until now, the risk management system of securities companies in China still focuses on three points: all staff members, all risks and complete process.

### **Problem**

However, according to Chong (2006), the present risk management system of securities corporations in China still has some problems: 1. risk awareness is not strong in the organization. 2. internal control institution does not function well in the reality. 3. businesses are too complex to be managed well, especially the risks behind them.

### **Improvement**

Above all, it is necessary to find some ways to improve the risk management system. According to Gao (2016) risk management can be improved by: 1. improve the supervision work of securities company's risk management. 2. set up reasonable risk organization structure. 3. foster a good culture of risk management and consolidate the construction of risk management team. 4. establish professional risk management system to identify and avoid all kinds of risks.

In addition, according to Liu (2005), the securities companies can improve the risk management system through the following aspects: 1. set up securities company risk management department. 2. strengthen the management of branches. 3. make full use of the computer communication technology.

## **Comparison with global securities industry**

**Profit model-US** (Goldman Sachs): the profits are mainly from investment banking, institutional client services , lending & banking and investment management businesses. Institutional client services takes up the largest amount of profits. Japan (Nomura Holdings): retail, asset management, global market and investment banking businesses form main profits sources. Global market business takes up most profits. Korea (Samsung Securities): global stock, investment banking, retail and capital market businesses become main profits sources. Global stock business earns most profits. China: most profits are from economic commission of brokerage business.

**Potential risk**-no matter which country is, market fluctuation risk is very important. For example, 2008 global financial crisis, which lets many securities companies shut down shortly. Whether other risks will happen or not should depend on economic situations of different securities companies in different countries.

**Risk management system**-until now, the best practice of risk management system is from US. For example, Goldman Sachs and Merrill Lynch establish a risk management system centered on VAR risk quantitative technology. As for China, the securities companies have set up risk management department and used simple indicators to measure risk. But the risk measurement technology is not mature and really needs to be improved in the future.

## **Analysis Methodology**

Based on the actual situation of Zhongtai securities company, in this report ,I will find out the problems of Zhongtai securities company's risk management system and then propose solutions to improve the risk management system of Zhongtai securities company with help of related

literatures. Finally, I will predict the future development of Zhongtai securities company under the new policy.

### **Zhongtai Securities Company**

During the five –month internship at Zhongtai securities company, I learned about their current profit model and potential risk. First, I wrote an initial investigation report of customer companies (included the background information , business ,financial products and derivatives) and more importantly, I communicated with the clients , I found that the risk management system of this company was not a best practice, only the improved risk management system could help reduce the economic profit losses caused by single profit model and potential risk, too. Therefore, this report gives some useful suggestions such as increasing risk awareness ,establishing three monitoring defenses, reforming the business system, preventing all kinds of risks to improve the risk management system of Zhongtai securities company.

### **Profit model**

The Zhongtai securities company gains profit from the following businesses: brokerage , investment , credit , investment banking and futures . Although the company started to carry out the creative businesses in the last two years, the core business is still the brokerage business.(seen in table 3)

**Brokerage business**-The securities brokerage business is the traditional advantage business and the main source of operating income. In the first half of 2015 and 2016, the securities brokerage business income accounted for 53.90 % and 43.57 % of the company's operating income. The company relies on regional advantages and local government policy support. The company's business varieties are fully qualified. Such as: qualification of foreign exchange business, the futures introduction business, the national stock transfer system securities broker business, the

margin trading and short selling business. Also, getting the first level dealer qualification of ETF products which is recognized by all market and OTC trading qualification. In the face of increasing competition in the brokerage business and the development of off-site transaction model, the current commission rate is being reduced. This will lead to the competition environment becoming fierce. Overall, brokerage business has been the main source of revenue for the company. But in the recent years, influenced by the capital market fluctuation and market homogeneity competition, the traditional business profit has been lowered. The company is actively changing its business strategy by trying to improve the comprehensive financial services capabilities and further consolidates the advantages of the province. At the same time, making efforts to open economically developed region market.

**Investment business**-The income of the company's securities investment business mainly includes equity investment, fixed income investment and financial derivatives investment. In the first half of 2015 and 2016, the corporate securities investment business income were 1.6 billion CNY and -0.1 billion CNY, accounting for the 17.81% and -4.42% of the operating income.

**Credit business**-Zhongtai securities company also carries out all kinds of credit businesses, such as, margin trading, contractual repurchase securities trading and refinancing. When carrying out credit business, the company shall prevent and control risks to ensure safety of company and customer asset. In the first half of 2015 and 2016, the company's credit business income were 0.44 billion CNY, 0.45 billion CNY, accounting for 4.96% and 12.02% of operating income.

**Investment banking business**-Investment banking is one of the core business of the company's development strategy. In the first half of 2015 and 2016, investment banking business has realized the income of 0.24 billion CNY and 0.38 billion CNY, accounting for the 2.75% and 10.07% of operating income.

**Futures business** -The company carries out futures and related business through LuZheng futures. In the first half of 2015 and 2016, the operating income of futures business were 0.24 billion CNY and 0.41 billion CNY, accounting for the 2.71% and 11.10% of the operating income, which is an important part of operating income.

### **Potential risk**

Zhongtai securities company has the following risks:

**Unstable solvency capability risk**-With the development of credit business in the last two years, the issuance and scale of debt financing instruments is increasing.(seen in chart 1)

**Interest rate risk**-Market interest rate is very sensitive to the overall operation status of the national economy, national macroeconomy , financial policies and the influence of international environment change. Especially, China is in the key period of economic transformation. The economic regulation policy is introduced intensively and so, the likelihood of market interest rate fluctuation in the next few years is high. Because of the use of fixed rate form for current bond, once the market interest rate fluctuates, it may cause investors to get the relatively low interest benefits.

**Market fluctuation risk**-The securities market condition is easily influenced by the state economic situation, macroeconomic policies, international economic situation, offshore financial market situation, investors' behaviour and other factors. It is pretty cyclical and volatile.And this leads to the great fluctuation of securities company operating performance.(seen in chart 2)In the future, the fluctuation of the securities market may lead to the decline of the company's performance. The company may lose 50% of operating profit or can not even cover the costs.



**Liquidity risk-** Recently, the key indicators for measuring liquidity risk tend to decrease.(seen in chart 3) Under the current policy system, the financing channels for securities companies are limited. During the business operation of the company, if affected by some factors,such as, market situation changes, poor management and declining credibility ,it may lead to the large investment scale of self-operation business and the high long-term investment weight. At this moment, if the company can not get enough money in time, the company will face liquidity risk. What's worse, this will make company lose one or more business qualifications.

**Credit rating downgrade risk-**Through the comprehensive evaluation of the zhongxin securities appraisal co.ltd, the main credit rating of the company is AAA, which shows that the debt repayment ability of the company is extremely strong and the risk of default is extremely low. Taking into account the credit rating agencies' ratings of companies and bonds is a dynamic assessment process, if future credit rating agency downgrades the credit rating of the corporate body or a bond ,the bond market price will fluctuate and will result to the loss of bondholders.

### **Risk management system**

Since the Zhongtai securities company has a single profit model and some potential risks, it is better to improve its risk management system to make up for the losses caused by the model and risks.The following are current situation of risk management system, problems behind the system and proposed solutions to improve the system.

### **Current situation**

When Zhongtai securities company implements risk management, it is mainly based on business process and follows five steps: risk identification, risk assessment, implementation of risk management measures, monitor risk management system and improve risk management system .

**risk identification**-The risk identification refers to inspect and recognize all the potential risk points that can exist and have a great effect on the management and operation of the corporation assets. It is the premise and basis for effective implementation of risk management.

**risk assessment**-The risk assessment refers to the process where the corporate risk management committee, the inspector, the audit department and the risk assessment team will assess the probability of the appearance of risk when the asset management business starts. Accurate risk assessment is the scientific basis for the effective risk management.

**the implementation of risk management measures**-The implementation of risk management measures refers to the departments with found risk points taking the appropriate control measures. After the approval of risk management committee, the company will implement these measures based on the risk assessment.

**monitor risk management system**- In order to ensure the effectiveness of the risk management, the audit department shall conduct continuous inspections and supervisions of the risk management system. The audit department shall conduct continuous audits of each of business departments in the asset management department to check if they are in accordance with the established monitoring procedure and do a key audit to the departments with the defects in the risk management. Any department or people that fails to comply with the company's assets management business risk management system will be discussed and checked by the inspector, the leader of departments or the risk management committee.

**improve risk management system**-On the basis of risk monitoring, risk management committee, inspector, audit department , risk management institutions and the head of the asset management department shall assess the suitability and effectiveness of the risk management

system for the company asset management business. If there is any deficiency in the risk management system of the assets management business of the company, the risk management committee ,the inspector , the audit department and risk management institutions shall give recommendations for improvement and write reports. Then, supervise the asset management department implementing the above recommendations, which benefits to the improvement of risk management system.

### **Problem**

At present, the Zhongtai securities company has developed a lot and has good performance in terms of formation of risk management mechanism ,establishment of risk prevention awareness and adoption of risk prevention measures. But there still exists some problems :

#### **1.risk awareness has not yet been fully established throughout the company.**

First of all, some subsidiaries lack risk awareness and professional business knowledge. Therefore, Regardless of financial management,tax declaration, personnel management, or other aspects of business and whether it is first-level market underwriting, or the second-level market brokerage agents, the phenomenon of violating the regulations still exists. Secondly, some branches have short-term business objectives.They only pay attention to effectiveness and do not consider what risks may happen or how to manage and prevent risk. These branches focus only on short-term gains and lack long-term development planning.Finally, the internal control of this company is only a form,Which only focuses on the establishment of the system instead of implementation, supervision and assessment. Since the establishment of internal control system is not perfect or implementation is not strict,the effectiveness of internal control is poor. During the process of securities trading , management system is weak and managers can not know the business risk situations, they lack controlling beforehand and remedial measures afterwards. In

terms of controlling staff quality ,the company has not yet formed a system and sometimes, the company only focuses on business level and ignores the staff characters and professional ethics, resulting in illegal operations and even corruption.

## **2.business risk management is not perfect.**

When the company carries out the business, regulatory work can not do its part. This will cause some irregularities appear.First of all, about the self-operation business, there are some branches carrying out the self-operation business with no right of self-operation, the amount of self-operation is beyond the scope of authorization. Using the information advantage to manipulate market prices. The self-operation business and other business are not strictly separated. Some branches exist the phenomenon of misappropriation of customer margin.Secondly, about the brokerage business, a small number of branches do the misappropriation of customer margin. They do the overdraft for customers and disguise acceptance for the client's discretion. Manipulation of the price and the market often happens and some branches will do the commission return to large and medium customers and this creates the unfair competition.The company has not fully established the contract business risk assessment system and benefit-cost accounting system, so assessment and evaluation system can not be implemented well. Finally, about the fund business, some branches have unauthorized and overdue financing. The company fails to implement effective protection and remedies on the actual losses and potential damages caused by overdue bank funds , which leads to the difficult circulation of cash flows.

## **Improvement**

When looking at the actual situation of Zhongtai securities company and the suggestions from the literature reviews, actions that the company needs to take to improve the risk management system are as follows:

### **1.increase the awareness of risk prevention and strictly implement sound operation.**

Zhongtai securities company requires all leaders in the company to firmly establish the awareness of risk prevention and to strengthen the study of laws and regulations so that they can effectively operate the whole company. Also, they should improve the internal control system of operation management and financial management to make the staff more professional through supervision of important positions.

### **2.establish three monitoring defenses.**

Zhongtai securities company should establish internal control system that covers all businesses, all the departments and all the staff .Also ,it should establish the strict and effective three monitoring defenses. First defense is based on double persons, dual-duty and dual responsibilities. Second defense is based on limitation and balance between departments and positions.Third defense is based on the complete supervision and feedbacks from each position, each department and each business.

### **3.reform the business system**

Zhongtai securities company should reform the work process and risk regulations of business operation in the views of the risk management. About the investment banking business, they should focus on the professional division of labor, enhance transparency and mutual restraint during the operation of the project. Establish a capital market department, which is responsible for coordinating the pricing and sales of securities issuance and coordinating institutional investor customer relationship management work. By doing this they can effectively control market risks caused by unfair pricing.

About the self-operation business and money management business, the company should insist on the principle of controlling risk and prudent investment and focus on the analysis of market fundamentals, follow the guidelines of "steady, efficient, portfolio investment" to strengthen the cooperation between company's R & D center and investment banking headquarters. Do scientific and rational selection of investment areas and investment varieties, then strive to achieve the smallest risk and the biggest profits.

#### **4.prevent strategic risks**

In order to effectively prevent and control strategic risks, the company will adopt risk identification, fortified research and market risk monitoring in terms of asset management business.

4.1 risk identification -Risk identification is mainly made by the risk assessment team, including the correct identification of financial markets and various market risk components of the securities investment varieties .This will provide a scientific basis for ensuring the accuracy of the market risk measurement .The specific actions are as follows:First , research market risk measurement methods and try the best to use risk quantification technology to calculate market risk values. Also ,use the risk limited amounts to control risk. Meanwhile, distribution and monitoring of risk limited amounts should be implemented by investment decision-making committee.

4.2 fortified research -Through follow-up investigations and studies on various aspects that affect the overall operation of the market, the company should make timely and relevant forward-looking research report, which provides the basis for investment decisions and would help company to effectively avoid and prevent market risks.The main measures include that the

research department makes analysis on the macroeconomic trends, policy changes, industry development, individual stocks, investment strategy evolution and other factors that affect the market fluctuation. Research department also issues regular and occasional reports as references for investment decision-making .By working with R & D centers and external research institutes, the company gains a more comprehensive macroeconomic information and policy trend analysis to help trust investment to avoid market risk. Investment decision-making committee uses regular and irregular meetings to review the asset management department's asset allocation plan. Asset allocation plan defines the distribution proportions and financing scale of assets between the industry and the market in order to control market risk of asset management operation.

4.3 market risk monitoring and management-The company and the asset management department should make use of the system software platform and adopt the procedural and standardized methods to set up the market risk monitoring points and warning points to timely and effectively monitor and respond to market risks. The main measures include market volatility and liquidity monitoring.

4.3.1 market volatility monitoring-Setting the warning of abnormal fluctuations in broader market, so that investment managers and investment decision-making committee can make correct investment decision.

4.3.2liquidity monitoring- Setting the limits on the trading of stocks that are illiquid. Monitoring the stop loss point, setting stop loss warning and critical point are mandatory processing requirements.

## **5. Prevent investment management risk**

5.1 Investment decision risk control-Investment decision risk control is reflected in the process of trust assets investment, which involves the investment decision-making committees, investment decision-making team, investment management department and investment manager. By setting a reasonable scope of authority, investment decision-making risk can be set within the controllable range.

5.2 Operational risk control-The implementation of risk control is mainly made through the development of strict trading system, a clear transaction execution process and trading authority. The main measures include:

5.2.1 Implementing a strict system of separation of the responsibility and space of front and back office-Asset management department sets up a centralized trading room to be specifically responsible for the implementation of investment transactions. Also, investment managers are not allowed to place their own orders and the investment manager's trading instructions need to be executed through centralized trading room.

5.2.2 Centralized trading room needs to do the unconditional execution of investment manager's investment instructions.

5.2.3 Establishing a clear business authorization system-Centralized trading room has set up the managers, traders and other positions, the managers are mainly responsible for the work of the centralized trading room. They accept the transaction instructions from investment managers and are responsible for making sure that transaction orders are executed by traders.

5.2.4 Establishing transaction monitoring system and risk warning system, strictly implementing the department risk management system and operating rules.



5.3 Investment variety risk control-The investment variety risk mainly includes the different degrees of risks caused by their correlations between two different investment products or between different investment objects in the same investment product.

5.4 Asset valuation risk control-The control of the valuation risk is mainly carried out by the department of planning and finance. The main measures include: the department of planning and finance makes the basic principles, methods and procedures of asset valuation, financial managers and investment managers set the value of assets such as non-negotiable securities through the market survey and analysis research. The department of planning and finance considers and decides the above assets' pricing .The planning and finance department reports to the president office and the president office will decide the price of assets.

5.5 Legal risk control-Legal risk control is mainly made by the audit department, with the following aspects: review and dynamically monitor the investment portfolio, so that the investment portfolio can strictly comply with the relevant laws and regulations, review whether the investment is carried out in strict accordance with the agreement of the clients or the company's investment decision-making process, review whether the implementation of investment decisions or orders is based on the decision of the investment decision-making meeting or the company's regulation on investment.

## **6. Avoid the operational risk**

Occupational ethics risk caused by employee's illegal behavior is one of the sources of operation risk of asset management business. The company attaches great importance to the prevention and control of occupational moral hazard.

## **7. Avoid the self-operation risk**

Making the reasonable configuration of the amount of self-operation funding, according to the steady degree of operation at Zhongtai securities company, the allocation of the funds of investment portfolio and specific project should be three to seven. At the same time, as the securities market matures gradually, the share of funds of investment portfolio expands gradually. Establishing the self-operation mechanism of centralized leadership, scientific decision-making, hierarchical management and timely feedback. Also, establishing orderly, efficient and standard operation mechanism that effectively prevent and control the self-operation risk and policy risk.

#### **8. Prevent funds management risk**

The operation funds of Zhongtai securities company is mainly from the three aspects of equity capital: short-term borrowed funds, long-term borrowed fund, customer margin. The principles of securities company funds management are security, liquidity, efficiency. Security means when the raising and use of funds, insisting on the policy security, settlement security and deployment security. Liquidity means that timely and fully meets the customer or company needs for funds, makes the reasonable allocation of funds and makes full use of the idle funds. Efficiency means that company uses the operation funds efficiently and normatively, reduces the funds cost and improves the efficiency of use. So that the greatest economic benefits can be achieved. The Zhongtai securities company often carries out the following steps to avoid the funds risk: makes a plan for the funds management, strengthens the credit regulation technology for the credit risk, default risk and settlement risk and establishes a risk management committee.

#### **9. Prevent technical risk**

9.1 Specially trained people do the maintenance for trading system, servers, network and the important software. Backup copy of data should be kept in a separation location from original data.

9.2 Develop a strict working system for computers, standardize computer system operating authority, operating procedures and personnel responsibility.

9.3 Establish emergency handling methods, including backup system, software, data backup and other measures. Once the system fails, it can be quickly resolved or replaced to reduce the loss.

9.4 For the newly purchased and developed hardware and software, testing must be appropriate and adequate. And to ensure feasibility and reliability of the new system, it has run simultaneously for a while.

9.5 Risk management department should regularly check the validity and reliability of the operation of computer information system.

## **Summary**

Above all, these suggestions are reasonable and feasible. First, since the risk awareness and internal control system are weak, combined with the advice 1 (improve the supervision) and 3 (foster good culture of risk management) from Gao (2016), the best ways are improvement 1 (increase risk awareness) and 2 (three monitoring defenses), which can be another method to function of internal control system. Next, since the business risk management is not good, combined with the advice 2 (set up reasonable risk organization structure) and 4 (avoid all kinds of risks) from Gao (2016), advice 3 (make full use of computer communication technology) from Liu (2005), the best ways are improvements 3 to 9 (reform business system and avoid strategic, investment, operational, funds, technical risk). Reforming the business system can help establish

good organization structure to improve business risk management. Also, preventing strategic , investment , operational , funds and technical risk can help improve business risk management in details. More importantly, the technical risk can be avoid through computer communication technology.Finally, with the help of enough capitals , human resources and advanced technology level of Zhongtai securities company, all improvements are very likely to be achieved in the future.

### **Future Development**

The new policy of the Belt and Road means that focuses on connectivity and cooperation between Asian countries, primarily the People’s Republic of China (PRC), the land-based Silk Road Economic Belt (SREB) and the oceangoing Maritime Silk Road(MSR).

#### **1. Securities companies and organizations will become increasingly internationalized.**

Under the new policy, China's securities companies and organizations will increase cooperation with other countries. So far, it has been shown in following areas:On the one hand, the Asian Infrastructure Investment Bank and Silk Road Fund are stepping up their formation and 43 countries have agreed to join the Asian Investment Bank.On the other hand, during the securities market summit forum of the belt and road, the major securities companies and organizations such as the Shenzhen Stock Exchange and GF securities company will establish an international financial exchange and cooperation platform in 2018.At the same time, they will consider cooperating with the Thailand Stock Exchange and strengthen multinational capital market communication.In the future, Zhongtai securities company could have chances to expand its abroad business.

**2. The situation of securities market will be improved, the market situation will go up in short term.**

Along with the emergence of new policy, a lot of investment opportunities appear for the securities market. Investors are all optimistic about new opportunities in :the transportation sector such as ports, railways, highways and aviation;the energy sector such as oil, natural gas and coal; the power and related infrastructure sector;the communications sector;the financial sector;the trade sector.Meanwhile, the "the belt and road" strategy has a great impact on the upgrade of China's manufacturing industry, like the high-speed rail equipment , nuclear power equipment, shipbuilding, large aircraft manufacturing, engineering machinery and so on.The Zhongtai securities company could focus more on these industries to earn profits in the future.

**3. Financing business goes better in the securities market, the internationalization of RMB will become more and more obvious.**

Under the new policy, expanding the scope and scale of bilateral currency exchange and settlement of the countries along the line (the countries which are located along the silk road) .Strengthening the cooperation between China - ASEAN Commonwealth Bank and SCO Consortium. Carrying out multilateral financial cooperation with syndicated loans and bank credit. Supporting the governments along the line and the higher credit rating enterprises and financial institutions to issue RMB bonds within China. Eligible domestic financial institutions and enterprises can issue RMB bonds and foreign currency bonds at abroad, encouraging the use of funds in the countries along the line. Making the full use of Silk Road funds and the national sovereign funds, putting the commercial equity investment funds and social funds into the important project establishment of "the belt and road".So the internationalization of RMB will

help the international trades of Zhongtai securities company run more smoothly in the future. To sum up, the new policy will make the securities market and the company gradually become better. The new policy is advantageous for the large and medium-sized companies, like the Zhongtai securities company . If the securities market is prosperous, then the organizations and companies will also make greater efforts to support the development of new policy. This will help improve Chinese economy in turn.

## Appendices

**Table 1**

<b>2013-2015 securities companies total income structure (unit:100 millions of CNY)</b>						
<b>Subject</b>	<b>2013</b>	<b>Composi tion</b>	<b>2014</b>	<b>Composi tion</b>	<b>2015</b>	<b>composi tion</b>
Net income of brokerage and trading securities business	759.21	47.68%	1049.48	40.32%	2690.96	46.79%
Net income of underwriting and recommendation business	128.62	8.08%	240.19	9.23%	393.52	6.84%
Net income of financial consultant	44.75	2.81%	69.19	2.66%	137.93	2.40%
Net income of investment consulting business	25.87	1.62%	22.31	0.86%	44.78	0.78%
Net income of asset management business	70.3	4.41%	124.35	4.78%	274.88	4.78%
Securities investment income(changes in fair value)	305.52	19.19%	710.28	27.29%	1413.54	24.58%

Interest income of securities margin trading	184.62	11.59%	446.24	17.14%	591.25	10.28%
Operation income	1592.41	100%	2602.84	100%	5751.55	100%
<b>source:</b> The annual securities business operation data published by the securities association of China						

**Table 2**

<b>2011-2015 changes of total leverage degree</b>					
<b>subject</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Leverage degree	2.49	2.48	2.76	4.44	4.43
Asset-liability ratio	29.22%	38.01%	50.54%	77.49%	77.41%
<b>Source:</b> The annual securities business operation data published by the securities association of China					

**Table 3**

<b>Subject</b>	<b>2016 month 1-6</b>		<b>2015 month 1-6</b>	
	<b>Revenue(ten thousand CNY)</b>	<b>proportion(%)</b>	<b>Revenue(ten thousand CNY)</b>	<b>proportion(%)</b>
brokerage business	164,436.61	43.57	486,982.90	53.90
investment business	-16,696.98	-4.42	160,971.11	17.81
credit business	45,356.31	12.02	44,791.76	4.96
Investment banking business	38,003.43	10.07	24,851.84	2.75
futures business	41,895.27	11.10	24,517.74	2.71
asset management business	42,495.59	11.26	17,698.57	1.96
overseas business	12,135.40	3.22	14,684.86	1.63
headquarter and other business	49,742.99	13.18	129,076.68	14.29
<b>Total</b>	<b>377,368.62</b>	<b>100.00</b>	<b>903,575.46</b>	<b>100.00</b>

Source: 2016 semi-annual report

Chart 1

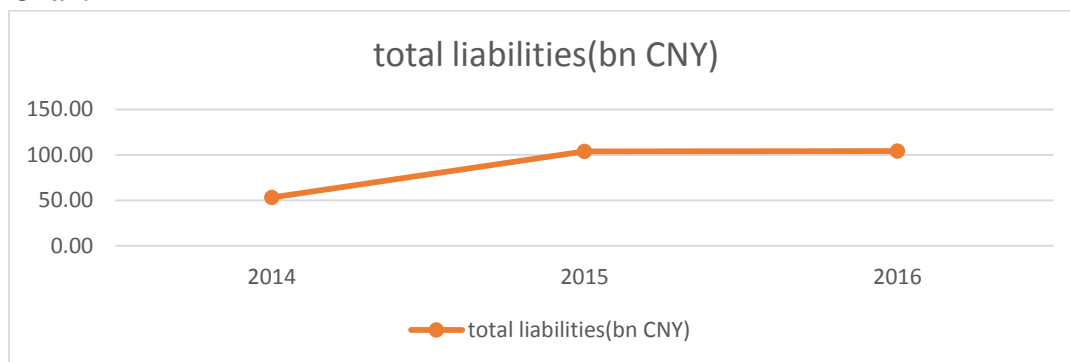


Chart 2

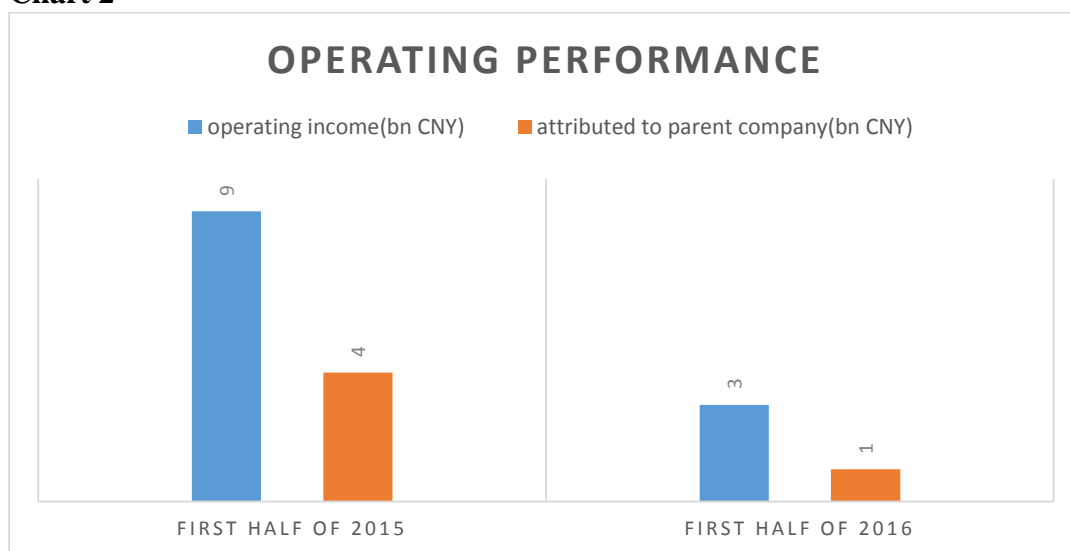
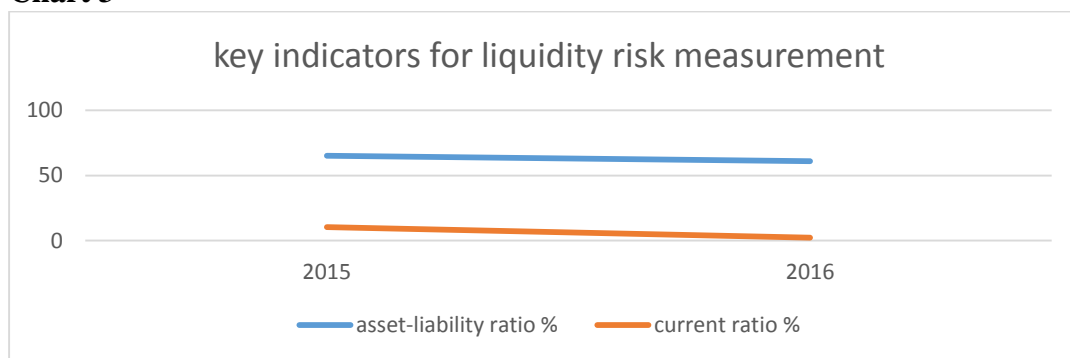


Chart 3



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