

**A STRATEGIC ANALYSIS OF ENTRY INTO THE
CHINESE FUEL OIL FUTURES**

by

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ABSTRACT

Raffemet faces threats in the Chinese metal Futures market. Internet trading is leading to reductions in brokerage charges. Entry of international firms will challenge the company's competitive position. Senior management is seeking new business opportunities. Currently, oil Futures trading is an ideal product that the company should explore because of the continued increase in oil consumption and the launching of the fuel oil Futures market in Shanghai. This external and internal environment analysis evaluates the emerging trends and events, as well as strengths and weaknesses the company has. Conclusion: Raffemet should expand business to the oil Futures market. This solution builds on the huge potential of market growth and long-term profitability, while avoiding the problem associated with ever-tougher competition and the slowly growing metal Futures market. The strategy developed for the new business should provide both for stabilization in near-term and allow for long-term growth and profitability.

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1 CHAPTER 1: INTRODUCTION

1.1 Company Background

Raffemet, a member of Shanghai Futures Exchange (SHFE), is a leading base-metal trading house in Asia and trades Futures and Options contracts on copper, aluminium, lead, zinc, tin, nickel and aluminium alloy. The company was formerly a business unit under the name China Non-ferrous Industrial Corporation. It was established in Hongkong in 1988 and moved to Singapore in 1996, since Singapore is the only country with the facility of physical delivery of all seven base metals traded on the LME (London Metal Exchange). Singapore is the most important shipping center with the biggest LME warehouse in Asia. In 1997, Raffemet restructured and transformed into an independent company under TOL star Investment Company. The company has 20 staff located in two places; headquarters in Singapore and a branch in the economic centre of China, Shanghai, with the office in Shanghai Futures Building.

Raffemet provides hedge service for mines, smelters, end-users and trading houses in China. It manages to facilitate uninterrupted 24 hours global trading on behalf of its clients in LME, New York Mercantile Exchange (NYMEX) and Shanghai Futures Exchange (SHFE). It also works as principle to take physical delivery from clients. Besides, at the request of its customers, the company provides stock financing and other financing services. Because of its huge sales turnover and great contribution to the country in income tax and local spending, Raffemet was awarded Approved International Traders (AIT) status by Singapore Trade Development Board among 120 other Singapore

enterprises in 1999. With AIT status, the company only pays a 10 percent concessionary tax rate on corporate profits.

1.2 Challenges and Opportunities

With the rapid growth of China's economy, the business of the company developed fast in the past few years. However, the company's market share is increasing slowly compared to its major competitors because of the threats it faces in the market. With the rapid development of communication technology and low costs technical people, many metal Futures brokerage firms in China built Internet trading systems, which lead to reductions in brokerage charges. Also, in the future, China's commitments to the World Trade Organisation to open financial markets to foreign participation by 2006 will challenge Raffemet's position in the metal Futures market. With the Chinese market more and more opening to the world, many Western investment banks and big international companies will enter into the Shanghai metal Futures market and provide the same services as Raffemet does. The company will face fierce competition, not only from the Chinese brokerage firms but also from big international brokers in the world. These companies have long history in metal Futures trading and already build a high level of reputation in the industry. The senior managers of Raffemet worry that in the future, the profit and market share may be too low for the company to survive, and corporate stability will be poor for the same reason. They are considering to enhancing the company's competitive position through expanding its network and sales channel or extending its business on other commodities. In the meanwhile, oil Futures trading is an ideal product the company should explore because of the continued increasing in oil consumption in China and the launching of the fuel oil Futures market in Shanghai.

Oil is an important national strategic material all over the world [1]. Currently, the rapid development in the auto manufacturer and construction industry in China is increasing oil consumption sharply. According to Mr Shang Fulin, Chairman of China Securities Regulatory Commission (CSRC), China has become the second largest oil consumer and the third largest oil importer in the world [1]. Fuel oil is mainly used in power generators, transportation and industrial manufacturing. Based on an SHFE report, China consumed around 44 million tons of fuel oil in 2003 [3], compared with 34.4 million in 2002. About half of this fuel oil was imported. Oil companies and consumers in China have the expected oil Futures market to obtain timely and accurate price information and hedge risks over a long time period.

The first fuel oil Futures contract was introduced in 1993, but was shut down one year later by Chinese government due to over-speculation¹. After a 10 years break, on August 25, 2004, under the approval of CSRC, fuel oil Futures were listed on Shanghai Futures Exchange (SHFE). Fuel oil Futures is just the first step. A full slate of oil derivatives² will be eventually list on SHFE for trading [1]. This gives Raffemet a great opportunity to develop new business. As a member of the SHFE, Raffemet is eligible to extend its business on fuel oil contract trading.

Some existing customers of the company are big players in the Chinese oil physical market. Without an oil Futures contract, these customers are exposed to huge risks. They expect Raffemet to provide both a hedge service and a physical delivery service on oil

¹ Speculation: Kamali [2] defines speculation as "the intelligent and rational forecasting of future price trends on the basis of evidence and knowledge of past and present conditions".
Over-speculation: traders manipulate the market and push the price rise or drop significantly in a short time.

² A financial derivative is a financial instrument whose payoffs depend o another financial instrument or asset. Futures and options are both derivatives.

products to manage risk. To meet these customers' needs, Raffemet is taking into account the possibility to go into the fuel oil Futures and physical delivery business.

In this paper, we conduct a study of the external and internal environment to identify the threats and opportunities that Raffemet is facing, as well as the strengths and weaknesses of the company. Tools and techniques are introduced to enable managers to understand the nature and impact of the environment the company faces. We examine the metal and oil Futures market size, existent and potential customers, and competitors. Also, we review the company's strategy, performance, unique resources and core competence. Based on the analysis, we develop issues and alternatives the company can choose to face the threat and the opportunity. A strategic decision is then made on the basis of what is optimal giving all these considerations. Finally, business and marketing recommendations are made to the company.

2 CHAPTER 2: EXTERNAL ENVIRONMENT ANALYSIS

2.1 Introduction

It is very important that Raffemet examines its environment before making the business decision to expand its network and sales channel or extend its business on the fuel oil Futures market. This chapter provides an external environment analysis aimed at evaluating the emerging trends and events in the Chinese Futures market so that Raffemet's management can respond quickly to these changes in the environment. A comprehensive model of PEST analysis is used to analyze the Political, Economic, Social and Technological environment. The analysis attempts to highlight the opportunities and threats that may emerge for Raffemet to expand its business on the Futures market in China. Besides, the objectives, resources, performance and strategy of the competitors in the Futures market are carefully analyzed. In today's business environment, competitive advantage is exceedingly important. Raffemet needs to know their competitors in order to survive in the market. Finally, due to the high uncertainty of the fuel oil Futures market environment, another useful tool, scenarios analysis [4], is used to view how the business may develop in the future. Based on the macro-environment and the microenvironment analysis, it is concluded that oil Futures in China is an attractive market for companies with the appropriate internal competences.

2.2 PEST Analysis

A PEST analysis is an analysis of the external environment that affects all companies. PEST is the acronym for the Political, Economic, Social and Technological factors that influence any industry. Such factors usually are beyond the company's control but can often influence the company. These factors always present themselves either as opportunities or threats to an industry. In practice, it is better for Raffemet to monitor these factors carefully before making the decision to expand its business.

2.2.1 Political Factors

Political factors have a huge influence on the regulation of the Futures business in China. Since the market is relatively new, the government tries to watch it closely. Before 1979, China had a planned economy system. Under such a system, all commodities' prices were fully controlled by the Prices Offices. In 1979, China launched economic reforms and started to open its market. However, the government defines the economy as a "socialist market economy with Chinese characteristics". This indicates that the economy in China is still not a true market economy. Since metal and oil are important national strategic materials, the Chinese government wants the market under its control, as well as wanting it to benefit for economic reform.

2.2.1.1 Copper and Aluminium Futures

In 1992, the Chinese government launched an economic liberalization program, with a focus on market orientation and globalization, in order to improve economic efficiency in all industries. The reform of the economy needed a free, fair, transparent and fully informed market so that prices are truly determined by supply and demand.

Futures market provides such a forum because it adds to market completeness, enables traders to speculate, allows firms to manage their risk by hedging, enables arbitrage, and increases trading efficiency (low cost and increased liquidity). To accelerate the movement forward a free market economy, the Chinese authority launched the copper and aluminum Futures market. At that time, there were 14 Futures and Options exchanges in China. In 1998, the government reduced the number of exchanges and raised margin requirements to limit over speculation. Currently, there are only three Futures exchanges left: in Dalian, Zhengzhou and Shanghai.

To provide a transparent, secure, and efficient market mechanism, SHFE organizes trading activities in strict conformity with regulations and policies. Since Futures trading has the risk of being misused, various regulatory measures are prescribed by the SHFE. To prevent traders from over speculation, the regulators limit price fluctuation to prevent an abrupt upswing or downswing in prices. The daily price fluctuation is set within 3 per cent [5]. Special margin deposits are collected on outstanding purchases or sales to restrict excessive speculative activity through financial restraints. Companies that trade copper Futures in SHFE should have 5 per cent minimum trading margins. These regulations and rules strengthen the risks management of Futures trading so as to protect the legal rights of involved parties.

The copper and aluminum Futures market has developed very fast for the last 12 years. In 2003, copper trading in SHFE reached 2.16 trillion RMB (US\$260 billion) [5]. Aluminum trading also reached 321 billion RMB (US\$38.85 billion) last year. The need for Futures trading has been widely accepted. It provides for greater transparency in price

making, as well as hedge services to help copper and aluminum producers and consumers reduce risk.

2.2.1.2 Fuel Oil Futures

The health development of the copper and aluminum Futures market led the government to consider launching the fuel oil Futures since market reforms to be complete requires a well-regulated and efficient Futures market. Raffemet attempts to expand its business into the Chinese oil futures market originates from the huge oil consumption in China and the authority's launching of the fuel oil futures market in Shanghai.

It is useful to look back on the history of the government policies regarding oil prices so as to completely understand the impact of political factors on the highly regulated oil Futures market. Before 1998, domestic oil price was fully under the control of government and had little to do with the international oil price. In 1998, the State Planning Commission of China announced a major pricing reform that set domestic oil price at levels link to the international market. Oil prices are adjusted every two months based on the price in the Singapore market, Asia's oil trading hub. But the price cannot correctly reflect the supply and demand of the Chinese market. Under such a system, domestic oil price is still not completely uncontrolled by the government. It lags behind the volatile fluctuations in the international market.

However, the influence of international oil prices on the domestic oil industry is growing quickly as China imports more and more oil every year. China's oil price can no longer be independent of the international market. The launching of the fuel oil Futures market in Shanghai on August 25, 2004 was a big step towards forming such a system. It

helps oil producers and consumers in China to use both international and domestic markets and resources to hedge risk. Besides, Chinese government has the ambition that China can take the place of Singapore as the new oil-trading centre since China is the largest fuel oil consumer and importer in the region.

Fuel oil Futures is just a test mechanism of China's economic reform. If the market proves successful, the government will go further to approve other oil derivatives, such as crude, diesel and gasoline. However, if the trading dominated by over-speculation, the government may shut down the market again as it did 10 years ago. The probability that the market will be successful is much bigger than the chances of failure for the follow reasons. To begin with, in 1994 when the government shut down the fuel oil Futures, there were 14 exchanges in China, offering derivatives in everything from copper to watermelons. The price of commodities exhibited great fluctuations every day, which resulted in a lot of bankruptcies. Some traders learned a hard lesson by suddenly becoming very aware of the risk of Futures trading. Second, SHFE has hosted Futures trading in copper, aluminum and natural rubber for more than ten years. Although it's still an immature market comparing to the New York Mercantile Exchange (NYMEX), which is 132-years old, regulators gained experiences on how to manage the risk. Last but not the least, before the fuel oil Futures listed in SHFE, 26 oil companies already had government approval to trade derivatives on overseas exchanges, such as NYMEX, and the paper market in Singapore. These companies can transfer this knowledge into the domestic market.

Fortunately, both situations create an opportunity for Raffemet to enter the oil Futures business. On the one hand, if the oil Futures market in Shanghai proves a success,

it will lead to the further reform and opening of the Chinese market. A full slate of oil derivatives will be eventually listed on SHFE for trading, which gives Raffemet huge opportunities to expand its business. On the other hand, if the government has to shut down the market, it will result in oil producers and consumers moving to the Singapore market. With a head office in Singapore and good services, Raffemet can gain a lot of customers.

2.2.2 Economic Factors

The rapid growth of the economy in developing countries, such as China and India, and the economic recovery of developed countries result in the increase in metal and oil consumption. China's nine percent annual average growth has made it one of the biggest consumers and producers of commodities in the world. The increase in demand results in the sharp price rise. In 2004, the price of copper and aluminum reaches nine years high with copper US\$3350 [5], aluminum US\$1883. The increase in copper and aluminum production and consumption raises the need for Futures that allow producers and consumers to reduce the risk of sudden price changes. The soaring prices of raw materials and big price volatility result in active trading, which pushes the turnover of copper and aluminum Futures trading to historical high. This year from January to September, the turnover of copper and aluminum rose to 5.17 trillion RMB (US\$625 billion) [6], increased 405% compared to the same time of last year.

Recently, the Chinese government has tried to decelerate the overheating economy. The authority tightened bank lending and slowed down nationwide construction projects in order to stop speculative investment in factories that might add to inflation. In the first quarter this year, investment in apartment buildings, factories and

other fixed assets rose 43 percent. The People's Bank of China, the central bank, raised reserve requirements by a total of a full percentage point for financially weak banks and by half a percentage point for stronger banks, including the Big Four national banks. In August 2004, China's inflation rate sustained a seven-year high with the consumer-price index rose 5.3 percent from a year ago [7]. For that reason, the production and consumption of copper and aluminum will decrease next year, which will affect the metal Futures trading. China's central bank announced that it would raise both lending and deposit interest rates 0.27 percentage in Oct. 29 [8], the first hike since July 1995. The one-year deposit interest rate will increase from 1.98 percent to 2.25 percent, while the one-year lending interest rate will rise from 5.31 percent to 5.58 percent. The rise in interest rates is detrimental for commodity and investment spending. The hike makes investors more prudent towards primary copper and aluminum projects because these projects need large investment. Since people expect that the central bank will raise interest rate again in the future, the costs of funding these projects will increase. In the short run, investments in some industries will be cooled down .

In the mean time, the Chinese government policy to slow down the booming economy withholds many companies from rushing into the oil Futures market, which gives Raffemet time to study the market and implement marketing strategy. Raffemet can enter into the Chinese oil Futures market with low cost and few competitors.

China has a pegged exchange rates system, which pegs the Yuan at a fixed exchange rate of about 8.3 to the U.S. dollar. This currency system is ideal for the arbitrage business. Arbitrage is the purchase of commodity Futures contracts on one market for immediate resale on another market in order to profit from a price difference

between the two markets. Investors can engage in arbitrage by buying copper or aluminium from the LME and immediately selling it at the SHFE, or vice versa, to take profit from the price difference between the two markets. Since there is no currency fluctuation between the Yuan and U.S. dollar, investors can reduce currency exchange costs and avoid the foreign-exchange risk.

In the future, China will go further to liberalize its markets and adopt a more open and competitive environment for investors. This change may help the development of the Chinese Futures industry, since the foreign participants can bring their experiences, knowledge and resources into the market. The entry of the foreign players in the oil Futures market may lead to the rapid growth of the market size because the oil Futures is still at its initial stage. The involvement of foreign investment banks and oil producers, such as oil giant BP and Exxon Mobil Corp., will accelerate the development of the fuel oil Futures market and encourage the authority to permit other oil derivatives, such as crude, diesel and gasoline, to trade in the SHFE. However, the big foreign players' entry into the metal Futures market will lead to fierce competition because the market size cannot grow rapidly.

2.2.3 Social Factors

With rapid growth of both the population and economy, more and more people in China will buy private cars [9]. In 2004, China produced 5 million cars, which is twice the production of 2001. On the one hand, people who have cars don't want to give up the convenient lifestyle. On the other hand, people who don't have cars are planning to buy private cars to improve their living standard. These factors result in

increasing consumption of oil in China in the next ten years. Accordingly, the market size of oil Futures trading will grow rapidly too.

Oil producers and consumers have realized the importance to use Futures market to hedge risk. As the Chinese market opens to the world, China's oil prices will become in line with the international market. The stability of the oil price in the world made some oil consumers lose money because they did little to hedge their risks to deal with price volatility. Presently, many oil consumers understand the advantages to use the derivative tool. Most important, Chinese people have grasped the knowledge to use Futures market to transfer risks because of the improvement of education level.

2.2.4 Technology Factors

2.2.4.1 Internet Trading

The advance of communication technology changes the competitive environment in the Futures market. The Internet is an absolutely revolutionary product in the financial service area. The new trading method, Internet trading, becomes a required distribution channel and takes investors away from the traditional trading. The advantages of Internet trading are quite visible.

First of all, the cost of making a trade has plummeted. Many on-line Chinese brokerage firms offer trades for less than 4/10000 of the turnover. Some of the aggressive companies even cut the commission to 2/10000 since the marginal cost of creating an additional online trade is next to zero. When more companies build the Internet trading system and an increasing number of investors turn to the Internet, online trading fees will continue to plummet in the future.

Second, the Internet makes it convenient for customers to do Futures trading. Traders can obtain real-time quotes, place orders, and receive related market data, news, and services anytime anywhere, no matter whether they are on a business trip or are at home. There is no difference for an investor to trade between a Singapore based brokerage firm and a China based company if the two companies have the same level of reputation. Internet trading is also convenient because it is quick and easy to trade.

Third, Internet trading gives investors full control of their Futures trading activities. The investors design their own trading strategy and make all decisions. For investors who are not seeking personal investment advice, online trading can be very useful. If they know enough to make trades without the help of a professional broker, Internet trading is an ideal trading tool for them.

On-line investors are using the Internet to their advantage, and the entire structure of Futures market is changing as a result. Equally more and more businesses have turned towards the Internet because of the large number of customers which can be reached through it. Futures brokerage firms in China have also rushed into this area of the market. Many companies build Internet trading systems which enable customers working at their PCs at home to trade. Some companies even build systems to allow investors to utilize wireless devices trading at any time from any place. Brokerage firms also keep overheads low by cutting the amount of costly office space and supporting staff required to execute trades. In summary, Internet trading systems enable the brokerage firms to cut costs, reduce order-processing time and improve information flow.

However, Internet trading had some disadvantages too. The first of these disadvantages is the reliability of online trading system. There are several factors that

can affect the stable of the system. The online broker's server and the user's personal computer may be down. The Internet service can be down too. Also, the power outages may disrupt service. Due to the rapid development of the economy, China's electricity demand increased sharply early this year. Many cities experienced frequent power outages. Changsha, the capital city of Hunan province, could only provide power to residents five days a week in the spring of this year. Any one of these factors could cost both the online brokers and the investors' money.

In addition, the rapid growth of Internet trading requires the companies to constantly implement changes to meet the customers' growing needs. Firms need consistently to add more features to the software applications and upgrade to faster and more secure hardware. Computer experts need to be hired to maintain the system. Inappropriate management of the Internet system and computer experts leads to huge costs and system failure.

Finally, the Internet trading system is not 100 percent safe. Online security is one of the major concerns of investors. This keeps some people from trying online trading. Although the Secure Socket Layer³ (SSL) can provide data encryption and authentication when a message is transmitted between a client and a server (it would take more than a billion years to crack a 128-bit encryption), it cannot prevent the message from being intercepted by the "Man-in-the-Middle"⁴ [10]. In addition, there are some other security risks. Internal hackers can go directly into the company's server room and destroy all the information on it; indeed a trader's password can be stolen.

³ Secure socket layer uses public key encryption to exchange a session key between the client and server.

⁴ Man-in-the-Middle is a program that intercepts messages transferred between a client and a server when messages are transmitting via SSL.

2.2.4.2 Bank System

With the development of communication technology and advanced bank systems, transferring money around the world has become much easier. For Futures trading, it is crucial for customers to maintain a certain margin level in their account. In the past, it took one day to move money around the country. During that day, anything could happen. The commodity's price may have fluctuated greatly and without enough funds in the account, the customer's Futures position could be closed by the brokerage firm; the person who sent the money could withdraw all his funds. Nowadays, people can transfer money to their account within ten minutes [11], which makes the Futures business more manageable.

2.2.5 Summary

From a political point of view, the Chinese government tries to use the Futures market to establish a free, fair, transparent and fully informed market so that commodities prices are truly determined by the supply and demand. Although the government is very cautious at opening up the Futures market, it will actively support the SHFE. In the short term, the Chinese government policy to slow down the booming economy withholds many companies from rushing into the oil futures market, which gives Raffemet first mover advantages. In the long term, the continuing rapid growth of economy in China creates a huge potential for the oil Futures market. The entry of the big foreign investment firms and giant oil producers in 2006 will help the development of the market as the trading will be very active when there are a large number of participants. Social factors suggest that there will be increasing consumption of oil in China over the next 30 years. Because of the improvement of education levels, more and more Chinese people

will use the Futures market to hedge risk. Moreover, the Internet trading system changes the competitive environment of the Futures industry since more and more investors will adopt the low costs and convenient trading system associated with it. The advanced banking system makes the Futures business more manageable. Based on the PEST analysis, the conclusion is reached that the environment is generally good for expansion into the Chinese Futures market.

2.3 Competitor Analysis

Competitor analysis reveals the strengths and weaknesses of the competitors in the industry. Through the detail analysis of the resources, goals and marketing strategies of the competitors, Raffemet can completely understand the environment and develop related strategies to deal with it.

2.3.1 Current Industry Environment

2.3.1.1 Copper and Aluminium Futures

The development of copper and aluminium Futures in SHFE is successful. SHFE has 211 members, among them 187 are Futures brokerage firms; 24 are big metal and rubber producers and consumers. There is a trend towards an increasing number of big copper and aluminium producers becoming members of SHFE and trading Futures on their own account to achieve greater control of either the cost of inputs, or revenues from sales, or both.

In 2003, copper trading in SHFE reached 2.16 trillion RMB (US\$260 billion) [6], which exceeded that on the Comex division of the New York Mercantile Exchange by volume, making SHFE the world's largest copper Futures market after the LME. The

aluminum Futures trading is also very active. The turnover rose to 321 billion RMB (US\$38.85 billion) last year.

2.3.1.2 Fuel Oil Futures

There are some barriers to enter into the Chinese fuel oil Futures market. Fuel oil Futures trade is only open to members of the SHFE and big Chinese fuel oil traders, such as Sinochem, Sinopec subsidiary Unipec, and PetroChina unit Chinaoil. Foreign companies registered in China, such as oil giant BP and ExxonMobil Corp., can apply for a license to trade. Others who are interested in the fuel oil derivatives have to open accounts with a Futures brokerage, which can trade for them at SHFE. Presently, the biggest problem for Futures brokerages is lack of experts who are familiar with both Futures and oil market.

Currently, the top state traders, such as Unipec, Chinaoil and Sinochem Corp, are under close internal scrutiny to manage the risks in the Futures trade because they have little idea about how the market may turn out. These firms don't welcome the Shanghai fuel oil Futures market, as the free trade market will challenge their monopoly position in the nation's oil market. They are taking a wait-and-see attitude towards the Futures market. So far foreign oil companies have shown little interest in Futures trade until China's plans to open up its domestic oil market are completed. A number of the SHFE's members are non-brokerage firms which can only trade Futures at SHFE on their own account. These members are big producers or consumers of copper, aluminium or natural rubber. Some Futures brokerages of the SHFE are very enthusiastic about the new market because of its huge potential. However, the current tight monetary policy is slowing down their steps to develop the market.

2.3.2 Market Size

2.3.2.1 Market Size of Copper and Aluminium Futures

The market size for copper Futures totalled 4.47 trillion RMB (U.S. \$540 Billion) [12] this year for the first ten months this year, which increased 243 percent comparing to the same period of last year. Part of the reason for the increase is the climbing copper price because the trading volume has only increased 135 percent. The copper price has climbed to a nine year high, reached US\$3350 per ton. The soaring prices of copper attracts speculator actively trading in the market, which results in wide price volatility. The great price fluctuation allures even more speculators actively involving in the market. Also more hedgers enter into the market in order to trade against the price volatility. These factors push the turnover of the commodity's Futures contract trading to the new high.

The market size of aluminum Futures rose to 1.06 trillion RMB for the first ten months this year, which jumped 349 percent comparing to the same period of 2003, while the trading volume increased 279 percent. The LME 3-month aluminum performed strongly and hit a nine-year high of US\$1,883 per ton on October 11, 2004 [5]. China produced 5.96 million tons of aluminum in 2003. The aluminum output totaled 5.6 million tons for the first nine months this year. It predicts that the country will produce 6.5 million tons of aluminium in 2004, which climbed 9.1 percent comparing to 2003. Due to the excessive development of car and construction industry, the consumption of raw materials increased sharply.

However, the Chinese government issued fairly strong warnings about the construction-led boom, encouraging banks to slow their rate of new loans. The major

areas that the government wants to slow down include private carmakers and construction projects. It predicts that both copper and aluminium production and consumption will cool down and the prices will correspondingly slip. According to data from the Chinese Maritime Custom Service, in September, the import of copper decreased suddenly. Export jumped 33 percent from a year early, while the import decreased 22 percent in September [13]. The government policy to decelerate the economy might have some impact. As a result, the Futures trading for copper and aluminium will cool down next year.

To sum up, the copper and aluminium Futures is at their rapid growth stage when the market is well accepted by the investors. The construction-led economic boom in China and soaring prices of the two commodities pushed the market to a better than expected situation. From figure 3 within appendix 1, we can see clearly that the turnover of copper and aluminium Futures trading climbed steeply. From 2001 to 2004, the average turnover growth rate for copper Futures trading is 107 percent, while the aluminum Futures trading is 155 percent. However, the current economy environment cannot continue to sustain the rapid growth rate.

2.3.2.2 Market Size for Oil Futures

The Shanghai fuel oil Futures market has developed very fast since it launched on August 25, 2004. In September, the first month of trading, the turnover of the fuel oil Futures was 9.6 billion RMB. But in October, the turnover jumped to 64.5 billion RMB. In practice, it is hard to estimate the future market size based on the two months' trading volume.

We can use the Futures market data of copper to estimate the market size however. Since the copper Futures contracts lunched in 1992, the market size increased rapidly. For the first nine months this year, the total turnover of copper rose to 4.17 trillion RMB (US\$504 billion). China's copper consumption in the last 10 years has been growing around 14 percent annually. The country consumed 3 million tons of copper last year, about 60 billion RMB [13]. For fuel oil, China consumed around 44 million tons in 2003, appropriating 92 billion. It is assumed that the fuel oil Futures market will reach level of copper in the future because SHFE has successful experiences of China's 12-year old copper and aluminium Futures trading and Chinese people have more knowledge about the market. Under this assumption, the turnover of fuel oil Futures contracts will reach 5.56 trillion RMB, which is U.S. \$672 billion. If the Chinese government goes further to permit other oil derivatives, such as crude, diesel and gasoline, trading in the SHFE, the turnover will be 10 times of fuel oil Futures' trading volume, about 55.6 trillion RMB (U.S. \$6.72 trillion). A report from the Ministry of Commerce predicts that China's demand for crude oil will be 285 million tons in 2004, which is 825 billion RMB (rose 12% from last year) [14]. The commission that the Futures brokerages can earn will be 22 billion RMB (The commission rate is 6/10000 of the turnover, with 4/10000 belonging to brokerage firm and 2/10000 belonging to SHFE).

This forecast assumes that the oil Futures market will develop, as did the copper Futures market. However, there are some key influences and drivers of change about which there is a high level of uncertainty. For example, the market cannot be active while the giant oil producers and consumers do not involve in the fuel oil Futures market. Also, opening up the market completely to foreign companies will dramatically change the

competitive environment. Therefore, it is hard to estimate exactly when the oil Futures trading will reach 55.6 trillion RMB.

2.3.3 Competitors' Resources and Core Competencies

The Futures market is competitive because the commodity service is undifferentiated. There is little to stop customers switching among competitors. There are some major competitors in the Chinese Futures markets. The three largest players on the market are China International Futures Company (CIFCO), Yongen Futures and Jianzhang Futures. They are all big brokerage firms with resources to expand their business to fuel oil product. Table 3 shows that one peculiarity of these companies is their strong national network, which can add competitive advantage for their business. Especially for CIFCO, it has 500 employees in 7 subsidiaries and 25 branch offices distributed in 30 provinces of China. Another peculiarity is that their employees have high level of education, which is the competence required in the industry.

Table 1: Competitors' Resources

	Founded (Year)	Employee	Education	Headquarter	Branches	Distribution (Provinces)
CIFCO	1992	500	60% PhD. In Senior management	Beijing	7 subsidiaries 25 branches	30
Yongen	1997	101	80% (Degree & Up)	HangZhou	3 subsidiarier 9 branches	13
JianZhang	1993	110	>80% (Degree & Up)	ChangZhou	5	6

Other key competences required in the business are experienced expert service, high reputation, and real-time quote and information service. All the top three firms focus on advanced technology so that they can provide real-time data to customers. They have

telephone and Internet trading systems which allow customers to place orders, track portfolios and get related market information, news, and services 24 hours a day. Their main marketing strategy is introducing the fuel oil derivatives through their powerful website. To draw potential customers from all over the country to the company, some websites even offer a fuel oil Futures simulation game which allows traders to familiarize themselves with the transaction rules of the new derivative, learn more about the market and test investment strategies.

Online marketing enables the brokerage to market the new product direct to its web based customers. The cost is very low compared to organizing a trade show or inviting customers to attend the information seminar. However, the online brokerage firms cannot provide specialized services to its major customers because they do not focus on interacting with customers in person. Although there are online surveys that assess customers' needs, these do not work well when customers are not actively involved. In relative terms, it is easy to understand customers' needs when talking to them face to face. Customers may search for news and quotes through the company's website but trade with another brokerage firm which can provide an expert service. In addition, competitors find it easy to copy or imitate such a strategy and match the promotional impact, which then becomes diluted for individual companies. With more and more Futures brokerage firms applying the Internet technology to their business, using technology to enhance the customer service becomes an enabling competence in the industry.

High reputation and experienced expert service are the core competences in the futures business because these competences have been built up over time and cannot be

easily imitated by competitors. The reputation of a company needs a long time to build. Knowledge is embedded in the superior systems of the company so that one expert leaving the company does not have an impact on the company's service, although some knowledge may be considered tacit and therefore not containable within such objectified systems. Since the Chinese Futures market is only 12 years old, many Futures brokerage firms have short histories, which haven't yet built high-level credit. The bankruptcy of many Futures firms during the 12 years makes customers more cautious when they choose the broker. The top three players have built some reputation in the industry through their big trading turnover. But they are lack of experts who are familiar with both Futures and oil industries. Currently, few people have both Futures and oil industries experience in the Chinese market. Experienced expert services are highly valued by the customers.

2.3.4 Segments

2.3.4.1 Each Segment Characteristics

Customers who involve in the Chinese Futures market are:

- Top state commodities producers and consumers. Their active involvement in the market is the important factor for the Futures market to be successful. Base metal companies include Aluminium Corporation of China, Jiangxi copper, and China Minmetals Corporation. Oil giants contain Unipecc, Chinaoil and Sinochem Corp. It's luck to have such segment because the big trading volume and low credit risk. However, these companies will eventually apply for the licences to trade the Futures contract by themselves in order to reduce costs.

- Medium to small sized commodities producers and consumers. This segment is all Futures brokerage firms want to have because of the associated - large number and less risk (both credit risk and market risk). These companies use the market to hedge risk so that they can ignore the price risk when they organize the production. Normally, companies in this segment have less resources, both financial and human, to set up a trading department to trade by themselves. Therefore, they rely mostly on the brokers' services.
- Commodity trading houses. In theory, trading houses need to hedge all their imported commodities in order to reduce risks. This is because the commodities' prices are changed every minute in the world market but also the trading houses need time to transport the commodity from foreign country and distribute to the domestic consumers. Sometimes, the process needs a few months, which can cause the trading houses to lose huge amount of money. Customers in this segment use the Futures market mostly to against price volatility. However, sometimes they may become involved in speculation since they can understand the physical market very well allowing them to direct their Futures trading. They prefer to use the brokerage firms' service too.
- Foreign commodity producers and consumers that have business in China. They prefer to trade in LME and NYMEX with their own brokers that they are familiar with.
- Speculators. This segment is huge number of individual traders who are risk seeking. They accept the market's risk in pursuit of profits. Without speculators, the Futures market cannot be active because liquidity is very important for an

exchange. Speculators who have a deep knowledge and experience in Futures trading prefer to use the Internet trading system in order to reduce costs and pursue what is convenient. Speculators, who are inexperienced or not so confident, properly prefer to have the professional suggestions and use a broker to handle transactions.

- Arbitragers, who trade the same commodity in two different regional markets in order to profit from a price difference between the two markets. It is wonderful for brokerage firms to have such kind of investors because of their huge trading volume and low risk. To reduce risk, they use a broker to handle transactions so that they can make sure the trading is processed and the position is the same in the two markets in order to lock in the arbitrage profit.

2.3.4.2 Competitors' Segments

CIFCO's strategy is to devote itself to the whole market. It has many branches all over the country so that domestic investors have a convenient trade channel. It also has a well built website to attract small players and individual speculators. CIFCO will apply this strategy to the newly built fuel oil Futures market to take advantage of their strong network all over the country. However, the company needs huge resources to apply the strategy, not only the financial resources but also the human resources. In addition, they cannot concentrate on one major segment so that they can provide the best service to customers in that segment. Yongen Futures focuses on the Jiang Zhe area which is the richest part of China. Their customers trade everything listed in the three Futures exchanges, from soybean to metal to rubber. The company even invites successful individual investors to show their real daily trading records at the company's website so

that no experienced traders can follow [15]. Thus, the company can attract more investors.

2.3.5 Summary

The copper and aluminum Futures market is at the rapid growth stage; the better than expected environment pushing the market trading volume and turnover to a historical high this year. However, the changed economy environment in China will cool down the commodities trading in the next few years. It is unlikely the market size will increase as rapid as it did for the last 4 years.

Through examining the development history of copper Futures market, we estimate that the fuel oil Futures market can reach 5.56 trillion RMB. If China launches all oil derivatives next year, the market size of oil Futures might rise to 55.6 trillion. The opportunity is huge for anyone including Raffemet entering into the Chinese oil Futures market.

The key competences required in the Futures industry are experienced expert service, high reputation, and real-time quote and information service. The top three Futures brokerage firms in China are CIFCO, Yongen Futures and Jianzhang Futures. They currently do an excellent job of providing real time data and convenient trading channel to customers. They have a very strong national network, which can add competitive advantage for their business. Also, they have built some reputation in the industry through their big trading turnover. However, they lack of experts who have deep knowledge in both the Futures and oil industries.

2.4 Scenario Analysis

Although the oil Futures market has high potential, it's hard to predict how fast it will develop because of some factors and changes which will dramatically influence on the development of the market. In the future, the acceptance of the market by giant oil producers and consumers and the time involved in completely opening up both the financial and oil industries to foreign companies add high level of uncertainty to the oil Futures market environment. In addition, government spending and regulation have a big influence on the environment. For example, government spending on the development of the public transport rather than the private modes of transport leads to reduced consumption of oil. A conservative government policy on financial industry will slow down the launching of other oil derivatives. On the contrary, an aggressive policy will accelerate the launching of other oil derivatives. All these have a huge impact on the market size of the oil Futures market. Therefore, we conduct a scenario analysis to deal with the fast changing and uncertain environment.

Scenario analysis [4] is a tool that helps a company analyze possible key future events by considering potential outcomes. It is useful when the company takes a long term view of strategy and the future environment that the company functions is fast-changing and high uncertainty.

Figure 1 High impact and high uncertainty factors

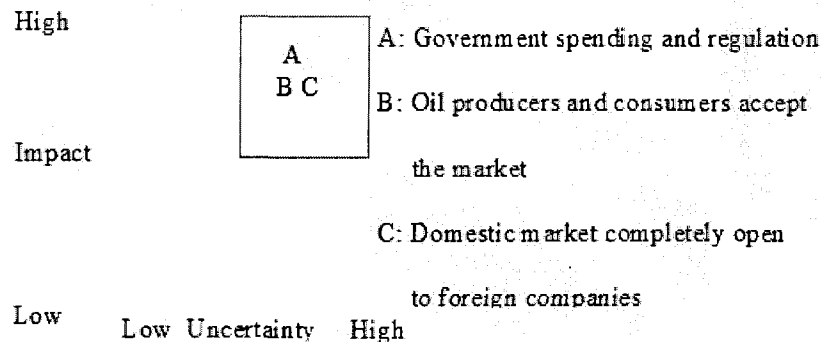


Figure 1 shows the high-impact and high-uncertainty factors which will change the oil Futures market environment in the future and which lead to the following scenarios.

Scenario 1: Shanghai fuel oil Futures market develops slowly

Government spending on the development of public transport rather than the private modes of transport leads to reduce consumption of oil and therefore limit the development of the Shanghai oil Futures market. Conservative policy on financial industry and over cautious regulation on the Futures market cause the slow launch of the all oil derivatives, which limits the market size. Moreover, unfavourable oil producers and consumers perceptions of the fuel oil Futures derivative develop and slow opening of the market to foreign companies also results in inactivity of the Futures market. Under this scenario, it will take longer than expected for the oil Futures market to develop in Shanghai.

Scenario 2: Shanghai fuel oil Futures market develops rapidly

Government policies to support rapid economy growth and Futures market lead to rapid development of the Shanghai fuel oil Futures. The healthy growth of the market results in further development as the success in fuel oil Futures paves the way to a full slate of oil derivatives to list on SHFE for trading. The fuel oil Futures trading will be active with the top state traders and big foreign oil companies' involvement when the market is well accepted by traders and domestic oil market opens to foreigners completely.

2.5 Conclusion

The copper and aluminum Futures market has developed rapidly for the last 4 years with an average turnover growth rate of 131.55 percent per year. The good economy environment has pushed the prices, market trading volume and turnover to a historical high this year. However, the changed economic environment in China experienced recently will cool down commodities trading. As a result, the market potential is low.

However, the Chinese oil Futures market is very attractive because of the increasing production and consumption of oil in China. As a useful tool for establishing a market-oriented oil price system, the oil Futures market has huge potential and its market size will be very big. However, it is difficult to be sure exactly how fast it will be developed because some factors and changes which will dramatically influence on the development of the market. The acceptance of the market by giant oil producers and consumers, the time that completely opening up the oil market to foreign companies will take, and government spending and regulation put the oil Futures market environment at

high levels of uncertainty. However, companies which have high level of reputation and can provide experienced expert service can finally win the market.

3 CHAPTER 3: INTERNAL ANALYSIS

3.1 Introduction

When designing a business strategy, companies not only need to examine the opportunities and threats in the external environment, but also need to be aware of their own strengths and weaknesses. Internal environmental analysis attempts to audit the resources and core competences a company possesses. The resources of a company are physical, human, financial and intangibles. These resources are essential for implementing strategies and thus their audit is of paramount importance to a company. Core competences constitute a competitive advantage for a company. They have been built up over time and cannot be easily imitated. An internal environment analysis is a useful tool to assess the inherent strengths and identify the weaknesses and is increasingly what companies need to spend their time doing to build and sustain a competitive advantage.

In this chapter, we analyze the strategy Raffemet has developed in order to compete in the Futures market. To better understand how strategies come about in the company, three ways of looking at strategy, strategy as design, strategy as experience and strategy as ideas, are employed. Then, we find how the company's strategies performing in terms of sales volume, market share, profitability and developing competitive advantages. Finally, to help with strategy decision-making, we identify the company's core competences and weaknesses.

3.2 Strategy

Raffemet was founded in 1988, when there was no Futures trading market in China. Without a useful tool to hedge risk, Chinese mines, smelters, end-users and trading houses were exposed to huge risk. They were disadvantaged when they competed with international competitors. Raffemet was set up to help these companies trade in LME to hedge risk. In 2000, Raffemet became the member of SHFE, which allowed the company to trade in both London and Shanghai Futures market. When Raffemet was built, it had only 3 employees. Currently, the company has 20 employees in two locations – Singapore and Shanghai - with about US\$10 billion trading volume annually.

A mission statement is a generalized statement of the most important purpose of a company. Strategy is the long-term direction of the company. It tells us about the types of action required to achieve the company's goals. A company's strategy needs to be consistent with the mission statement. Raffemet's mission is to continue learning and improving in order to provide the most efficient, professional and reliable Futures brokerage service to the base metals producers, consumers, and trading houses. The statement describes the company's main activities and the position it wishes to attain in its industry. There are two groups of traders in the Futures market for two totally different purposes. One is for speculation, which is to accept the market's risk in pursuit of profits; another one is for hedge risk, which is to reduce some pre-existing risk exposure. For the past 16 years, Raffemet focused its strategy on serving the group of customers who use the market to hedge risk.

To provide better service to its customers, Raffemet develops strategy which offers customized service combined with cutting edge trading strategy designed to serve

individual customer's trading needs. The objective of using the Futures market is simply to achieve corporate goals, but these are unique to each company. Some companies use the tool to lower costs and secure market share, while others use it to reduce earning volatility or increasing margin. There is no cookie cutter approach of one-size fits all these goals. The key is reduction of risk. To help customers develop a reasonable trading strategy for the market to meet their corporate goals, Raffemet's managers and traders frequently visit the metal producers and consumers who are Raffemet's existing customers or potential customers to understand their needs and concerns. Traders must complete an individual-needs analysis for each client before giving advice. Moreover, Raffemet provides training for customers to understand the principle of Futures and option, as well as fundamental and technical analysis. These procedures enhance the relationship between customers and Raffemet.

The major trading tool that Raffemet uses in day-to-day business is still telephone calls. The company receives customer's orders through telephone calls. All phone calls to traders are answered promptly, in person, 24 hours a day. This traditional trading method allows customers to get professional advice and trading suggestions before they place an order. It is an effective way to enhance customer loyalty and control risk, especially when a new customer has little knowledge about Futures.

Raffemet's marketing strategy is consistent with the mission, goals, and objectives of the firm. To better serve its customers and control risks, the company targets its market at big and medium-sized metal producers, consumers and trading houses in China. Personal selling is the major method due to the business-to-business marketing environment and the complex of the service that the company provides.

Personal selling has many advantages in attracting customers in the target market. First, Raffemet's customers are big metal producers and consumers, which specialize in manufactures rather than Futures products. They need to be carefully educated in the metal derivatives as well as the benefits companies can get from the service. The customers must understand the Futures market before they can make decision to use Raffemet's service. Second, customer royalty is very important for Futures business because customers repeat using the brokerage service. Personal selling can enhance the relationship between the customers and the brokerage firm. Third, salespeople can get more attention than an advertisement or a trading show while face to face with individual potential customer. They can adjust what they say or do to consider factors influences on the customer. They can ask questions to find out about a customer's specific interests. They can also stay in tune with the prospect's feedback and adjust the trading strategy for the customer as they move along. And afterwards, the sales person is there to ensure that the customer is satisfied and that the relationship between the customer and the firm continues to be mutually beneficial. This selling method creates customer royalty for Raffemet, especially in the early years of the relationship. In the early of 1990s, companies in China knew little about metal derivatives to hedge risk. In fact, Raffemet educates many metal producers and consumers to use Futures market in order to reduce risk.

3.3 The Strategy Lenses

Strategy development and management in a company can be viewed through the lenses of design, experience and ideas [16]. The design lens suggests that a company's strategy development processes are conducted all through carefully analysis and

evaluation. There is a tendency for top management to lead the development of strategy in the organization. The experience lens views strategy as formed on the basis of collective experience of individuals or cultural systems of a company. Usually, the development of strategy in the organization is based upon what has been in the past. The ideas lens views that the strategy is formed on the basis of ideas and innovations, which come from anywhere in an organization. Here, strategy is formed from within and around the organization when people deal with a fast-changing environment in their daily activities. It is important to understand the three lenses because they provide insights into how the complexity strategy is formed in the organization. Raffemet, a learning organization, often emphasizes people's variety of knowledge, experience and always encourages creative ideas around a shared purpose or vision.

3.3.1 Design Lens

There is no evidence that Raffemet develops strategy through a rational, analytic and structured process. The company has not developed a systematic method in order to direct decision-making. The small company has a flat structure and does not have any planning system nor does it make use of analytic and evaluative tools.

3.3.2 Experience Lens

Experience plays an important role in Raffemet's strategy development and management. Industry knowledge and experience is a crucial factor in success in the Futures business. Therefore, an individual's knowledge and experience are highly valued at the company. Experience from senior managers as well as professional staff directs change in the company's strategy. For example, the idea about expanding business and

helping customers to trade in SHFE was rooted in their experience with Chinese clients. They felt that their customers preferred to trade Futures contract at home rather than overseas. To focus on the big and medium-sized base metal producers and consumers also originated from experience. The senior managers have more than 10 years of experience working with big manufactures and trading houses within the corporation. The decision on how to gain and keep the excellent staff in order to hold a competitive advantage also comes from the experience of senior management. However, the experience can result in bias. Successful experience in the past does not necessary lead to success in the future because the environment changed. Since more and more big metal producers and consumers apply for licences to trade on SHFE by themselves, still focusing on this segment results in wasted money and time. Also, when people have no experience in one area, they feel uncomfortable about making a decision. For example, the senior managers in Raffemet resist accepting new technology, specifically Internet trading, since they do not have knowledge and experience in the area. The company still uses telephone calls as its trading method.

3.3.3 Ideas Lens

Managing new ideas and the development of ideas in situation of change and uncertainty is central to the future success in the company. The variety and diversity of staff and their experience, and less emphasis on top-down design enable shared, creative problem solving is obvious within the company. Ideas emerge from everyone in the company. Senior management actively encourages both the cross-over of ideas and the competition of ideas. Group of employees from all levels regularly meet on every Monday afternoon to solve problems, improve efficiency and enhance communication.

Ideas within the company are developed based on experience rather than through formal analysis and objectivity.

3.4 Performance

Although the Futures market in Shanghai has developed rapidly in recent years, the performance of Futures brokerages in China varies from company to company. According to the Shanghai Daily, more than 60 percent of SHFE's members lost money last year [17]. Raffemet is a medium size Futures brokerage firm with about US\$10 billion trading volume in Futures market last year in both SHFE and LME. Without reducing in brokerage charges in SHFE and earning 6/10000 commissions in LME, Raffemet's profit is above the average in the industry. The company's net income was about US\$300 million last year.

Raffemet's performance has improved for the past 5 year with trading volume growth rate at about 20%, due to a better-than-anticipated environment in the region, excellent management and professional service. At the same time, many Futures brokerage companies in China went out of business. Six years ago, there were nearly 1000 Futures brokerage companies in China; currently there are only 187. Raffemet organizes trading activities in strict conformity with its mission to help non-ferrous metal producers, consumers and trading houses hedge risk. On the one hand, the company provides stock financing and other financing service to encourage companies to use the Futures market to hedge risk. On the other hand, speculation trading is not only discouraged but also limited by the company. When traders design trading strategies for customers, the first thing they strengthen is risk management. The strategy has benefited both Raffemet and its customers for the past 16 years.

3.5 Unique Resources and Core Competences

Raffemet needs sufficient resources in order to enter and success in the Chinese oil Futures market. These resources are human resources, financial resources and intangible resources, like reputation and knowledge. With US\$90million assets (US\$30million cash), Raffemet has the financial ability to expand to new business and new market. However, this is just the threshold resource to stay in business. To gain competitive advantage, Raffemet needs unique resources and core competences which are by definition better than that of the competitors and are difficult to imitate.

Unique resources and core competences are those resources and capabilities which add competitive advantage to the company [16]. They give the company a unique advantage over its competitors and help make the company profitable. Raffemet's unique resources and competences are its collaborative people, high level of reputation, and the ability to provide unique service, more details on this follow.

3.5.1 Collaborative People

Motivated, productive, dedicate people are Raffemet's most valuable asset. Raffemet only has 20 employees, but 90% graduated from college or above. People in Raffemet have not only qualifications but also in depth industry experience. They are outstanding at what they do. In addition, all of them understand English and Chinese, both oral and written, which is very helpful in terms of Raffemet operating globally. Half of the employees come from China. They can understand the culture, operation, government policy and regulation of the Chinese market very well. The other half of the staff is from Singapore and has an excellent knowledge and experience about the Futures market. Each group of people alone cannot form the core competence of the company.

However the integration and collaboration of the two groups of people add great value to the company.

In many brokerage firms, these uniquely competent individuals are highly valued. But this is not a robust source of long-term strategic advantage. When these people leave the company, what has once been a core capability is downgraded. In Raffemet, collaboration and teamwork are highly valued because the management believe that teamwork can improve productivity, quality and morale. Most important, people's skill and experience are embedded into the company's work routines and business process, which then stay in the company forever. All members in a team serve the same customer. Therefore, to get better service, customers move around the company rather than work only with one particular individual. This benefits both customers and Raffemet. Customers obtain service from the company 24 hours a day. When they have a problem about the order or the shipping status, they can contact any team member to solve the problem as soon as possible. For Raffemet, one person leaving or retiring does not have a dramatic influence on the company's business.

The flat structure of the company enables shared, creative problem solving. People in the company are encouraged by the management to share ideas and experiences so that other team members can learn from. Like many brokerage firms, the management of Raffemet believes that building customer loyalty is a lot easier if the company has a loyal workforce. It gives a lot of attention to retaining its people, not only the senior analysts but also the support people because they interact with customers. Bonus schemes are linked to company profits for everyone. Team incentives rather than individual incentives enhance the team working in delivering strategy. There are formal and

informal educational programs for staff too. All these programs enhance the relationship between the company and its staff.

If Raffemet expands to the Chinese oil Futures market, the company will still rely on its people and maintain the organizational culture of team working and flat hierarchy in order to get competitive advantage. Currently, Chinese Futures brokerage firms have a problem of acquiring experts who have excellent knowledge in both Futures and oil industry in order to get the competitive advantage in the oil Futures market. Fortunately, Raffemet can obtain this kind of industry-specific knowledge through hiring people in Singapore because Singapore has relatively long history of oil Futures trading. The over-the-counter (OTC) oil derivatives market of Singapore started during 1980s to meet the growing Asia market needs. There are many professionals who have worked in the area for decades. Raffemet's Chinese competitors have some difficulties in hiring experts overseas. Without an office abroad, the experts have to obtain work permits to enter into China's labour market. The process is not easy because of the high rate of unemployed in China. At the same time, people with Chinese background will be hired in the marketing department. These people must understand the business processes, culture and value of Chinese oil companies very well. The management's job is to encourage integrative skills among employees and make sure these two groups of people can work together effectively.

3.5.2 High Level of Reputation

Raffemet has built a high level of reputation through years of good and reliable services. Raffemet was set up to help Chinese metal producers, consumers and trading houses trade in LME to fend off price fluctuations. The company benefits from the first

move advantage since it was one of the few Futures brokerage firms entering into the Chinese market at that time. It won a lot of customers that are big mines, smelters, end-users and trading houses in China.

Raffemet focuses on the long-term relationship with customers. In its early years, the company spent a lot of time and money on educating customers since people in China had no knowledge about Futures trading. The company provided free training for customers to understand the principle of Futures and Option, as well as how companies could benefit from the Futures contracts. Most of these trainings were conducted face to face at the customer site. Traders in Raffemet worked closely with customers to help them design a trading strategy to meet their corporate goals. In addition to providing free training to customers, Raffemet also provides stock financing and other financing service to help companies solve short term financing problem. When companies achieved their corporate goals with the help of Raffemet's services, customer loyalty was enhanced. Raffemet also got pay off, not only in profits but also in increasing market size because this group of customers introduced Raffemet's excellent service to their suppliers or customers. In fact, many metal producers and consumers find Raffemet's service through the word of mouth.

3.5.3 Unique Service

Currently, Raffemet is the only brokerage firm, which helps its customers trade in both LME and SHFE in order to profit from arbitrage. In essence, finding an arbitrage opportunity is like finding free money. Chinese Futures brokerage firms cannot have this kind of service because the government does not allow domestic Futures brokerage companies engaging in Futures trading abroad. Investors in China who want to engage in

arbitrage have to open two accounts in two different brokerage firms (one domestic and one overseas) and put full margin in both accounts all the time. They cannot move the money away to do other business since the time to seize the arbitrage chance is very short. When arbitrageurs are involved in the market, the price of the under-priced market rises quickly and the price of the over-priced market drops quickly. In addition, the arbitrageur must keep moving money from the account where he is winning to the account in which he is losing in order to bring the account back up to the initial margin level. Otherwise, the brokerage firm with the account that he loses may close the arbitrageur's Futures position and the arbitrageur exposes to great risk. With Raffemet's service, investors only need a small amount of money in the account since the risk for the arbitrage is very low compared to speculation. Therefore, investors efficiently use their money and manage their account. Raffemet can take advantage of this unique service if it enters into the oil Futures business.

With headquarters in Singapore, Raffemet can help the oil derivatives players gain profits from the Singapore Futures market and SHFE. Singapore is the oil derivatives center for Asia because of its special location and advanced oil refining industry. The Strait of Malacca is one of the oil shipping centers in Asia. Besides, it's a leader in petroleum refining, with total crude oil refining capacity of nearly 1.3 million barrels per day (bbl/d) [19]. In addition, Singapore is one of the major countries that China imports fuel oil from, about 1.1 million tons of a month. For SHFE, while oil Futures market will take time to develop there, many derivatives players eye SHFE as their next market for growth since China has increasing influences on the Asian oil markets. Its demographics can change supply and demand needs very significantly on its

road to economic development and industrialization. Raffemet can help investors engage in arbitrage between the two major oil Futures market.

However, this unique service is temporary. Once foreign Futures brokerage firms enter into the Chinese derivatives market, the competitive advantage will disappear. With sufficient resources, foreign Futures brokerage firms will have no problem providing arbitrage service to Chinese investors.

3.5.4 Weaknesses

Raffemet's trading method, placing order through telephone calls, and marketing strategy, the comprehensiveness of personal selling, comes at a price. The company needs to hire more traders to handle customer orders. Also, one person cannot answer two calls at the same time, which makes the trading inconvenient, especially during period of great price fluctuation. Personal selling is the most expensive on a cost-per-customer-reached basis compared to other promotion methods. In an era of great advances in information technology, online selling and Internet trading play a useful role in the business. Many competitors in the market have already built websites to directly reach their web-based customers. Internet trading system allows customers to place orders, track portfolios and get related market information, news, and services at any time. The costs are very low compared to personal selling. But Raffemet chooses not to use the Internet to market its service because it lacks ICT knowledge. The conservative management group is unwilling to spend resources on the technology that they cannot understand. Therefore, the company loses the potential advantages inherent within attracting web-based customers and reducing costs.

Although Raffemet's long-term strategy is in line with its mission and goals, it is not consistent with changes in the marketing and customer environments. Currently, the Futures market in China is developing very quickly. The market for Futures reached 8.35 trillion RMB (US\$1.01trillion) in the first half year of 2004, which amounts to an increase of 195% comparing to the same period of last year. Most of the traders in the market are speculators and small size metal producers, consumers and trading houses. According to the statistics of SHFE, the speculators in the Futures market are 6 to 10 times of the hedgers. With a conservative strategy, Raffemet tends not to take the opportunities to expand its business in other segments. Its market share base on turnover has increased slowly comparing to its competitors, while the market share base on number of customers has decreased. Also, with only one branch in China, Raffemet finds it hard to win its competitors who have more than 10 branches in the major cities of China. In addition, Raffemet tends to lose some big customers, which are big copper and aluminum producers and consumers, because they apply for the membership and trade in the SHFE on their own. Only some of the big lead, zinc, tin, nickel and aluminium alloy players are left, since these commodities are not list in the SHFE for trading. Raffemet helps these big players trade in LME. But in the future, when the SHFE launches these commodities' Futures contract, Raffemet will lose these customers too.

Although Raffemet has the ability to provide an arbitrage service which is unique to the company, it does not spend the necessary resources on marketing the service. In theory, the arbitrage opportunity may disappear if many traders exploit it. However, it will not go away that quickly because many factors create the opportunity. There are three big metal exchanges in the world and each of them reflects the supply and demand

of its region. For example, the rapid development of economy in China this year sharply increased the demand of copper and aluminum which resulted in the rise of price in the SHFE. The copper and aluminum price in LME and Comex lagged behind. With the active involvement of arbitragers, the price in the two markets caught that in the Chinese market very quickly. Also, traders act differently to news that is suddenly revealed to the public. The increase in production in a medium sized metal company may only have impact on the supply of the region in which it is located. Arbitragers need to respond to the chance fast when the opportunity appears. Actually, this is a big opportunity for Raffemet to increase its market share without adding risk because the company has a unique arbitrage service which allows investors to seize the chance quickly. One reason that the turnover of Futures trading in SHFE and in LME increases sharply these years is because of the increasing investors in the market engaging in arbitrage. Raffemet needs to do more in order to attract speculators and investors engaging in arbitrage. This service is welcomed by many investors.

3.6 Conclusion

This internal environment analysis identifies the strengths and the weaknesses of Raffemet, which are essential in the building of new strategies– for example, by extending into new businesses. Knowledge, experience and ideas of senior managers and diversified staff direct Raffemet’s strategy development. The company’s unique resources and core competences are its collaborative staffs, high level of reputation and the ability to provide a unique service. However, without adjusting its marketing strategy to the changing environment and putting more resources into its expanding network, Raffemet’s market share has increased slowly compared to its competitors. In the information age,

online marketing and Internet trading play an ever more important role in the brokerage business. But Raffemet lagged behind its competitors in using emerging technology to improve the Futures service. While Raffemet has the unique capability to provide arbitrage service, it does not take full advantage of the resource to attract more investors in order to increase market share. In the future, resources and competencies required in the Future brokerage firm tends to rise with time, so there is a continuous need to improve the resources and key competencies to stay in business and gain competitive advantage.

4 CHAPTER 4: ALTERNATIVES ASSESSMENT

4.1 Introduction

Alternatives assessment is a study intended to help decision making by identify the relative advantages and disadvantages of alternatives. In our case, it answers, "Are we getting the greatest profits for the money expended?" or "What is the best choice to deal with these threats?" This chapter looks at the possible alternatives that Raffemet can pursue in order to deal with the competitive environment threats it faces and be successful in the future. Three reasonable alternatives are identified, including the setting up of more branches to extend the network; develop Internet system to attract small players; expand into the Chinese fuel oil Futures business. Decision criteria, such as long-term profitability, growth potential, and strong competitive advantage in a growing market, are used to select these alternatives. Each alternative is evaluated in the light of the quantitative and qualitative strengths and weaknesses so that the best alternative can be selected.

4.2 Development of Alternatives

The alternatives were developed to deal with the threats (fierce competition from domestic brokerage firms and entry of giant foreign players), a problem (market share increases slowly) and an opportunity (the launching of the fuel oil Futures market in China) that Raffemet faces. To ensure that a reasonable range of alternatives is considered for its primary source of profits, three alternatives are considered to represent a wide spectrum of potential solutions, as outlined below:

1. Stay in the metal Futures business; add more branches in the major cities of China to extend network; continually market the service directly to large and middle-sized metal producers, consumers and trading houses; put more resources on marketing in order to attract investors who engage in arbitrage.
2. Stay in the metal Futures business; develop Internet system to match the competitors; market the service to all sized companies and investors engaging in arbitrage through direct or indirect channels.
3. Expand to the Chinese fuel oil Futures business; market the service directly to small and middle-sized oil producers, consumers, trading houses, and investors engaging in arbitrage.

Each of these primary strategies can be implemented by itself or in combination with the other strategies, depending on the company's resources. For example, with sufficient resources, the company can develop an Internet trading system when it expands to new business because the Internet system benefits both the metal and oil Futures business.

4.3 Decision Criteria

The best alternative out of those listed is selected using the following decision criteria and evaluating each strategy based on how well they meet these criteria:

- The alternative has the best potential for long-term profitability.
- The alternative offers stability and growth potential.
- The alternative highlights the strong competitive advantage in a growing market

4.4 Alternative Assessment

The three alternatives can be evaluated based on their quantitative and qualitative strengths and weaknesses, or positive and negative classification of key attributes such as potential profit, cost, ROI, risk, market potential, competitive advantage, customer satisfaction, employee morale, and corporate image. Some of these positive attributes are shared by both alternatives, but others are unique to a specific alternative and can guide the selection of the alternative that best meets the decision criteria. Table 2 below summarizes the assessment of setting up more branches to expand network. Table 3 summarizes the assessment of the second alternative. Table 4 summarizes the assessment of the alternative to expanding to the Chinese fuel oil Futures market.

Table 2: Set up more branches to expand network

	Positive	Negative
Quantitative	Profit – medium, depends on marketing	Cost – high
	Risk – low	Growth rate – low
	Market share – increase at first but will decrease when foreign companies involve	Productivity - low
		ROI – low, related to high cost
Qualitative	Employee morale – high, workforce stable	Flexibility - low
	Customer satisfaction – depends on good training and personal contact	Customer satisfaction – cannot trade on both oil and metal; cannot access data online
	Company image - good	
	Competitive advantage – no change	

Table 3: Develop advanced Internet system

	Positive	Negative
Quantitative	Profit – medium, depending on Internet sales	Risk – high, failure of Internet system
	ROI – medium	Growth rate – low
	Market share – increase at first but will decrease when foreign companies involve	Cost– more sunk cost but less marginal costs
		Productivity – high
Qualitative	Corporate image – increased	Competitive advantage – potentially decrease
	Customer satisfaction improved with real-time online info	Customer satisfaction – cannot trade oil Futures, less personal contact
	Flexibility – high	Employee morale – low, job replaced by computer system

Table 4: Expand to Chinese fuel oil market

	Positive	Negative
Quantitative	Profit - high	Productivity – lower than Internet system
	ROI – high	Risk – medium, depends on the perception of the oil market
	Cost – low, less sunk but more salaries	
	Growth rate – high potential	
	Market share – high potential	
Qualitative	Competitive advantage – ability to hire knowledgeable people	Flexibility - low
	Customer satisfaction – can trade both metal and oil	Customer satisfaction – no real time information
	Company image – potentially good	
	Employee morale – depends on perceived stability	

Based on these qualitative and quantitative characteristics, each alternative is assessed against the decision criteria:

The first alternative, stay in the existent metal Futures business and add more branches in the major cities of China to extend the network, may increase market share in the short run. This alternative is low risk because the company is good at personal selling. Building more branches allows the company to move closer to its existent and potential customers. Therefore, the option allows the company to maintain its competitive advantage. But the cost is high because the company has to set up offices in multiple locations and hire staff to service them. Also, the market growth rate is low, which limits the company's potential for a future revenue stream. Fierce competition in the Chinese metal Futures market and increasing Internet trading will lead to reductions in brokerage charges. Also, western investment banks and big international companies will eventually enter into the Chinese market. With tremendous resources and a high reputation, these companies will have big influence on the market. In addition, with many years of rapid growth, the market size of Chinese metal Futures is too big to sustain further rapid growth. All these will limit the company's growth potential.

The second option, stay in the existent metal Futures business and develop the Internet system to market the service to all sized companies and investors, sounds attractive. The marginal cost is low and the profit and market share will increase because the Internet system attracts web-base customers and individual investors who engage in arbitrage. However, it still means facing the competition from domestic and foreign companies. Without knowledge in the Internet technology and experience, the senior management will find it hard to manage the technical people. Also, the Internet system

will change the company's operation, which may decrease employee morale. Although replacing people's work with automatic system will increase productivity, the company may lose its competitive advantage – professional people provide customized trading advice.

The third option, expanding to the Chinese fuel oil Futures business, is more attractive. This alternative gives the company the opportunity to pursue the most attractive market opportunities providing huge potential for revenue growth. The cost for the expansion is related to hire more staff and market the new service is low when carefully managed. The company can use its existent facilities, equipment and network. It is easy for the company to hire knowledgeable people who understand both the Futures and oil industries in Singapore, which enhance the company's competitive advantages. The company also can benefit from first mover advantages and build customer loyalty . The potential negatives of this alternative are mainly related to customer needs for real time information, and can be mitigated by sending instant quotes through short message service (SMS)⁵ and research reports by email. Of course, the success of the new business depends on Chinese government policy and general perception of the market, as well as careful market analysis and strategic company management.

4.5 Conclusion

Reasonable alternatives have been evaluated and analyzed to determine their impact on the development of Raffemet. The analysis of the alternatives reveals that the option to set up more branches in the major cities of China in order to expand network is likely to attract more customers in the segment and increase market share in the short

⁵ Short message service (SMS) is sending or receiving short message over the mobile networks.

term, but the costs are high and the profit margin is low. Although the second option, to develop Internet system can decrease marginal costs, increases productivity and matches the competitor's action at reducing brokerage commission, it will increase the risk of Internet system failure. Also, the growth potential for both options will be low due to the fierce competition from domestic and foreign brokerage firms and slowly growing market size in the future. The third option, expanding into the Chinese fuel oil Futures business, has huge potential for growth and long-term profitability. Besides, this alternative will enhance the company's competitive advantage in the market. However, the success of the new business depends on some external factors, such as Chinese government policy and perception of the oil Futures market, which Raffemet cannot control. These three alternatives are not independent. Each of these options can be implemented by itself or in combination with the other strategies, depending on what is most advantageous to the company and what resources it might have available to it in the future and whether management feels it is up to the challenges associated with each option outlined above. The next chapter expands on this recommendation.

5 CHAPTER 5: RECOMMENDATION

This analysis has shown that, in the face of fierce competition from domestic brokerage firms and the threat that big foreign companies and Futures brokerage firms will enter into the Chinese metal Futures market, Raffemet's revenue is unlikely to grow without shifting into new, expanding markets. In the meanwhile, the launching of the fuel oil Futures market in Shanghai gives an opportunity to the company because of the continued increase in oil consumption and importing of oil into China. Given the results of the analysis, the best plan of action for the senior management of Raffemet is to expand the business into the Chinese oil Futures market. This solution builds on the huge potential of market growth and long-term profitability inherent in this market, while avoiding the problem associated with the increased competition and a slowly growing metal Futures market. As well, the option enhances the company's competitive advantage.

With the relative lack of direct competition in the Chinese oil Futures market, Raffemet can be a first mover in this area, securing the market for the future, allowing it to meet its growth aspirations. The marketing group should work with senior management to carry out careful market research over the next several months to determine exactly which kind of customers have the greatest potential demand for the oil Futures service.

To keep the company's risk as low as possible, Raffemet should target two groups of customers. One group is the medium sized oil producers, consumers and trading

houses, which use the Futures market to hedge or process cost budgeting. Once the company does well in this segment, it can use the resources and experience it gathers to expand to the small size oil producers, consumers and trading houses. Currently, the company can use less than maximum resource to explore the oil Futures market but leave space to expand. The other group is the arbitragers who take profit from a price difference between two markets. The first group of customers provide stable revenue to Raffemet while it operates at low risk level. Focusing on the second group of people allows the company to take advantage of its unique service. This market segment strategy limits speculations and matches the company's resources and objectives.

Raffemet should take advantage of its core resource, people, when it enters into the oil Futures market, since people are the most valuable asset in the business. To start the new business, the company should move forward by hiring two or three traders or analysts in Singapore who have good knowledge and experience in both Futures and oil industries as soon as possible. These people can provide training not only to customers but also to internal staff, such as sale representatives. At the same time, hiring five sales people in China who are willing to travel in order to market Raffemet's service to the customers all over the country must take place. These people should have excellent personal sales skill and knowledge either in Futures or oil industry. They should first be trained so that they can educate the customers to understand the oil Futures market. These sales people need to travel around the country to contact oil producers and consumers in order to inform them Raffemet's services. In addition to find out customer's specific interests, the sales people should find out who are the decision makers in the customer's company so that the right people are informed and contacted. Thus, the company can take

advantage of its knowledgeable staff and personal selling to enhance the customer relationship and company reputation.

In the meantime, Raffemet can leverage its current expertise into developing strategic relationships. The company has already developed a relationship and positive reputation with many customers and arbitragers who are interested in both metal and oil Futures. Raffemet's traders should make every attempt to strengthen this relationship. This relationship can then be used as the indirect channel that reaches the network customers, providing even more potential for market and revenue growth. A relationship with oil consumers can go far in bringing in their suppliers who are oil producers. Similarly, relationships with oil producers can give Raffemet access to these companies' customer bases, which comprise many of the larger network deployments. These relationships could also be used to help provide direction for Raffemet to understand what is most useful for the customers.

To improve customer satisfaction, it is important to train the customers on how to trade the oil Futures and how to turn Raffemet's service to their benefit. Trainers should provide training seminars at the client's site in order to train customers in person. Such touches not only make sure the customers understanding the complexities of Futures and options trading but also allow the trainer to obtain information about the customer's needs, preferences and resources. Once the customers have interests and needs for the oil Futures service, Raffemet can confidently and aggressively recruit more staff to provide the customized service as quickly as possible. It is worth the extra expense to train the customer in order to get more follow-up business.

Finally, the strategy design should match the company's resources with its market opportunities. Emphasising people's knowledge and experience, and highlighting the creative ideas help the company's strategy change in the high uncertainty and complexity of the environment are essential. The strategy should provide for stabilization of the company in the near-term and allow for long-term growth and profitability in the oil Futures market.

APPENDICES

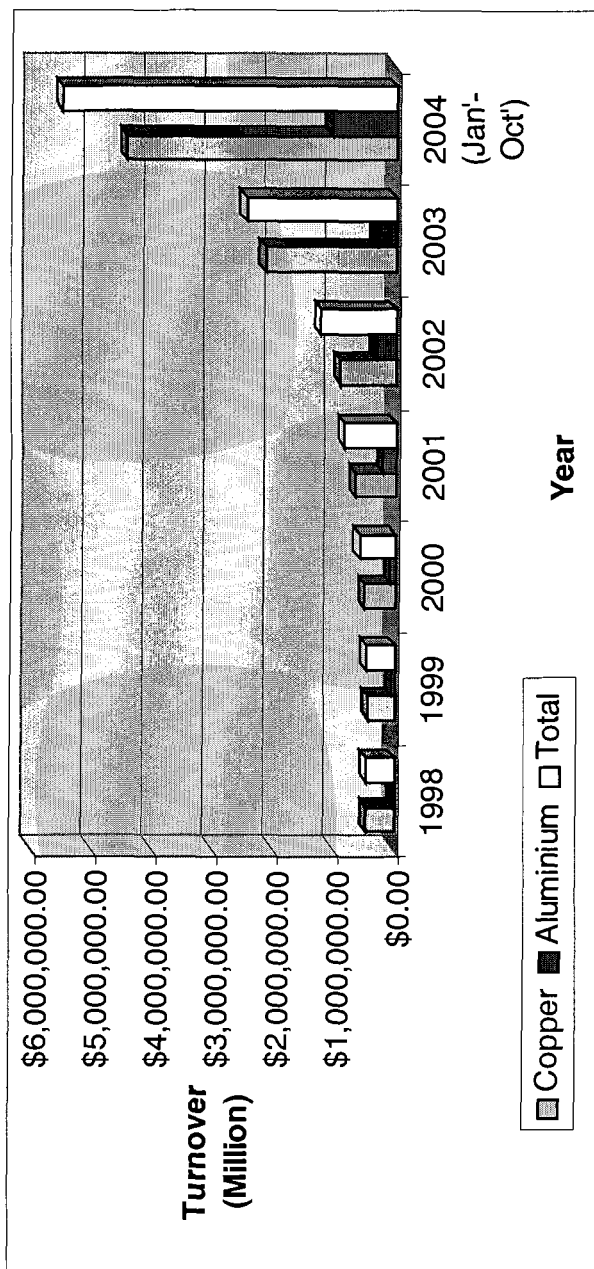
Appendix 1: Futures Trading Turnover of Copper and Aluminum in SHFE

Table 5: Turnover of Copper and Aluminum from 1998 to 2004 (Jan – Oct)

Turnover	1998	1999	% change	2000	% change	2001	% change	2002	% change	2003	% change	2004 (Jan'-Oct')	% change
Copper	\$464,770.73	\$424,914.75	-8.58%	\$503,773.02	18.56%	\$649,265.43	28.88%	\$919,031.46	41.55%	\$2,162,229.34	135.27%	\$4,473,951.66	243.62%
Aluminum	\$8,312.45	\$37,922.77	356.22%	\$73,179.00	92.97%	\$199,849.50	173.10%	\$319,327.27	59.78%	\$321,256.28	0.60%	\$1,059,479.16	349.04%
Total	\$473,083.18	\$462,837.52	-2.17%	\$576,952.02	24.66%	\$849,114.93	47.17%	\$1,238,358.73	45.84%	\$2,483,485.62	100.55%	\$5,533,430.82	296.33%

1. Turnover in Million 2. Turnover includes buy and sell

Figure 2: Turnover of Copper and Aluminium from 1998 to 2004 (Jan - Oct)



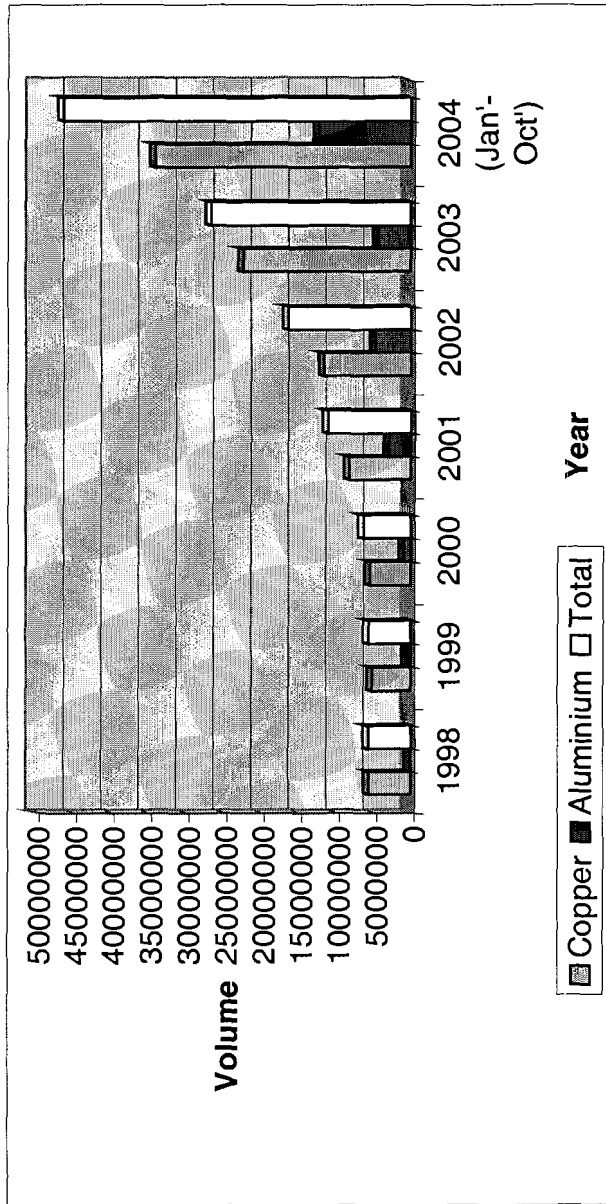
Appendix 2: Futures Trading Volume of Copper and Aluminum in SHFE

Table 6: Trading Volume of Copper and Aluminum from 1998 to 2004 (Jan – Oct)

Volume	1998	1999	% change	2000	% change	2001	% change	2002	% change	2003	% change	2004 (Jan'-Oct')	% change
Copper	5544248	5119374	-7.66%	5347302	4.45%	8177886	52.93%	11,592,600	41.76%	22,332,576	92.65%	34,047,974	243.62%
Aluminum	121312	512970	322.85%	910042	77.41%	2896384	218.27%	4,711,592	62.67%	4,310,996	-8.50%	12,251,462	349.04%
Total	5665560	5632344	-0.59%	6257344	11.10%	11074270	76.98%	16,304,192	47.23%	26,643,572	63.42%	46,299,436	296.33%

1. Trading volume in lots 2. Trading volume includes buy and sell 3. Lots size of copper and aluminium: 5 tonnes

Figure 3: Trading Volume of Copper and Aluminium from 1998 to 2004 (Jan – Oct)



Appendix 3: Futures Market

A Futures contract is a contract with predetermined price of a commodity in the present but conducting a transaction at a specific future date. For example, we assume that today is January 1 2005 and there is a three months 100 tons of copper contract at the price of \$3300. At April 31 2005, the buyer of the contract receives delivery of the copper and pay for it, while the seller of the contract delivers the copper and receive payment. The payment price is \$3300 which is determined at the initial time of the contract.

Traders of the Futures contract can be categorized as speculators and hedgers. Speculators accept the market's risk in order to get profits, while hedgers trade Futures to reduce some pre-existing risk. A hedger can be a copper producer who will produce 100 tons copper in three months and want to reduce its risk (the risk that the copper price will drop in three months) by selling the copper now in the Futures market. A hedger can also be a copper consumer who will consume 100 tons copper in three months and want to reduce its risk (the risk that the copper price will rise in three months) by buying the copper now in the Futures market. Both the copper producer and consumer transfer their risks to the Futures market. Traders can close the Futures contract by delivering the commodity or making a reverse trade in the Futures market.

There are two purposes of the Futures market: price discovery and hedge risks. Futures market helps investors better estimate of future prices of commodities. Therefore,

investors can make consumption and investment decisions more wisely. Commodity producer and consumer can use the market to reduce risk.

Exchanges are non-profit associations of members. Only members have the right to trade commodities on the exchange. Each exchange has a clearinghouse which guarantees members will take their obligations. The members bear the default risk of their customers. To safeguard their business, the members require traders to deposit margin and settle their account on a daily basis. If the margin balance in the trader's account falls below the maintenance margin level, the trader will get a margin call and must deposit more money. Otherwise, the members can close the trader's Futures position by make a reverse trade in the Futures market and the trader takes the loss.

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