Current Research on the Development of Hedge Funds at Home and Abroad

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Hedge funds, as a kind of private equity funds, aim to achieve the purpose of hedging with financial derivative products such as futures and options, as well as the operational techniques of short buying and short selling and risk hedging of different stocks associated with them. This thesis analyzes the emergence and development of hedge funds at home and abroad, as well as the hedging strategies and instruments. The history of hedge fund is also explained in terms of the double-layer underlying theory of futures trading, including theories of commodity trading, contract trading, and future claims. Initially, hedge funds were not subject to legal regulation. Because of the rapid development of hedge funds worldwide in recent years, they pose certain risks to national and global financial markets. Besides, the market access mechanism and regulatory model are not mature, so opportunities and risks co-exist in hedge funds.

Key words: hedge funds, hedging strategies, hedging instruments
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INTRODUCTION

Hedge funds are an important financial instrument in terms of hedging and price discovery in financial markets. At present, hedge funds in China have yet to be further developed.

Hedge funds originated in the United States in the early 1950s, when the purpose of their operation was to leverage financial derivatives such as futures and options, as well as the operational techniques of short buying and short selling and risk hedging of different stocks associated with them. To a certain extent, this can resolve investment risks and achieve hedging and price discovery. Early hedge funds can be described as a form of fund management based on a conservative investment strategy of hedging. From the macro leverage perspective, as the leverage ratio in the real economy and financial sector rises, there are multiple financial operations among various capitals (such as maturity mismatch and pledge, etc.). As a result, complex financial instruments increase risk coefficient and cannot be effectively monitored, which makes hedge funds vulnerable to scale risk and basis risk. These hidden dangers on the one hand gather risks in the financial system, and on the other hand make the risk cannot be effectively identified and prevented, increasing the overall operational risk of the financial system. Due to the late start of hedge funds in China, the current supervision of private equity funds is relatively lax and needs continuous improvement and perfection. What's more, no special regulatory body has been set up, and the management is mainly conducted through the China Securities Investment Fund Association for the record. While the operational aspects of private equity funds are more flexible and complex, thus it is difficult to cover every specific operational process legally. In terms of business processes, the market access system and registration system of hedge funds should be improved, strengthening the monitoring of daily transactions in hedge funds and the information disclosure system.

Therefore, this thesis summarizes and studies the development of hedge funds, hedging instruments and hedging strategies in order to enrich relevant researches.

THE HISTORY OF HEDGE FUNDS

The History of Foreign Hedge Funds

Hedge fund refers to a fund that uses hedging as a trading instrument, which means "risk-hedged fund". After more than 60 years of development, overseas hedge funds have become a mature and special capital management business with considerable scale in the global asset management sector. In today's financial markets, fund organizations use financial derivatives to adopt a variety of profit-oriented investment strategies, all of which are known as hedge funds to carry out two transactions with related quotes, opposite directions,

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comparable quantities, and offsetting profits and losses. Although hedge funds reduce the risk of another investment, at the same time they bring some negative effects. For example, after hedging was created, Soros triggered financial turmoil by shorting the Thai baht and sniping the currencies of Malaysia, Indonesia, Hong Kong and other countries and regions.

Foreign hedge funds have gone through roughly three stages since 1940s: the initial budding stage (1940s to early 1980s), the period of full revival and diversification (early 1980s to early 21st century) and the era of quantitative hedging and multi-strategy.

The 1940s to 1970s served as the nascent stage, during which the U.S. Wall Street crashed in 1929 and the U.S. stock market collapsed in the Great Depression from 1929 to 1933. Therefore, financiers began to focus on risk control and created hedging to reduce business risk while making profits in investments. Although hedge funds emerged in the 1940s, they did not attract much attention for the next 30 years.

It was not until the 1970s that severe inflation hit the United States, accompanied by high unemployment rate and low economic growth rate, which made Keynesianism doubtful and no longer credible. Meanwhile, monetarism was overwhelmed by changing exchange rates, and monetarism was overwhelmed by massive international capital flows. At the same time, this inflation up to a dozen years also caused serious impact on the U.S. economy. The Federal Reserve adopted expansionary fiscal policy in order to solve the debt problem by issuing more money. The inflation rate remained on the rise resulting from the oil crisis, and people's consumption habits had adapted to inflation. Constant consumption and even borrowing became the new consumption concept to resist inflation, leading to increasing currency in the marker and accelerating speed of money circulation which in the end caused inflation.

It was in the 1980s, with the development of financial liberalization, that hedge funds enjoyed broader investment opportunities and was fully revived and diversified. In 1987, the New York as well as the European stock markets crashed together with foreign exchange market chaos, followed by the Mexican crisis and Asian crisis breaking out in 1994 and 1997 respectively. As a result, the Russian economy failed to get out of trouble in 1998. Also, the financial crisis also disturbed the stability and development of many countries and regions. The year 1999 marked its end. During the 21st century, the threat of global inflation has gradually decreased, while financial instruments have become increasingly mature and diversified, and hedge funds have entered a stage of booming development.

The History of Domestic Hedge Funds

China's domestic hedge funds began in the 1990s. Since the reform and opening up, with the deepening reform in China's financial market, interest rate reform, RMB liberalization reform and the launch of financial innovation products in succession, China has become the second largest economy in the world. In comparison, despite the short history of hedging instrument at home, it has completely covered the stock market, commodity market, bond market and foreign exchange market.

Based on the development of hedge funds at home, China's financial market is not very mature compared with the international market, especially the European and American markets. For example, foreign exchange is regulated and the stock market has long been dominated by long positions, lacking financial derivatives. By 2004, sunshine private equity funds were officially introduced to the public. Meanwhile, Sequoia Capital, the world's largest VC, expanded its business scale through continuous mergers and acquisitions. Besides, Blue Ridge China, a private equity fund， focused on investing in Chinese enterprises. Under the trend of economic globalization, with the further deepening and opening of China's financial system reform, the accession to WT0, the development of RMB free convertibility as well as the establishment of the domestic financial market, especially the derivative financial instrument market and the opening up of the capital market, there is a possibility and reality for the emergence of hedge funds in China.

However, the development of hedge funds in China is not complete. Sunshine private equity funds issued by trust companies could only be considered as hedge funds in a broad sense. At that time, due to the lack of shorting instruments, such private equity funds failed to adopt hedging strategies. But the emergence of such private equity funds with long equity strategies was the first step for hedge funds in China and the prototype of various hedge funds with different strategies in the future. From the initial innovative strategies to the introduction of computers, with the breakthroughs in the field of artificial intelligence, perhaps the competition in the investment field is not determined by experience or financial resources, but by IQ and algorithm. The recent rise of various quantitative trading platforms also verifies this trend. Both the globalization and regional grouping of economy serve as an important driving force of economic globalization.

HEDGING INSTRUMENTS

Futures

The futures market first sprang up in Europe. Futures trading refers to the centralized trading of futures contracts between two parties on a futures exchange. The only variable in a futures contract is the price of the commodity. After paying a certain amount of margin, the two sides are allowed to bid and sell openly through the commodity futures exchange following certain rules. Trading is based on the principles of "openness, fairness, and equity". In general, most contracts are hedged before expiration, and futures trading must be conducted openly and centralizedly within the exchange in accordance with regulations.

China established the Shanghai Futures Exchange and the Zhengzhou Exchange in 1990, the Dalian Commodity Exchange in 1993, and the China Financial Futures Exchange in 2006, thus forming the four major exchanges. In 2009, G20 passed a resolution requiring all standardized swaps to be cleared through a central counterparty, which has a guaranteed delivery, margin system, and market surveillance system. The central counterparty has features such as collateralized settlement, margin system, and market-marking system, thus simplifying the counterparty relationship. In addition, tact-by-stroke hedging and mark-to-market systems are in place to calculate actual gains and losses, resulting in forms such as stock index futures, foreign exchange futures and treasury bond futures, which enrich futures hedging transactions.

Options

Options transactions began in the late eighteenth century in the United States and European markets. An option refers to a contract that gives the holder the right to buy or sell an asset at a fixed price on a specific date or at any time before that date. The day on which the option expires, as agreed between the parties, is called the "expiration date". While it is called a European option if the option can only be executed on the expiration date, or an American option if the option can be executed at any time on or before the expiration date.

In 2015 China launched the first and only option - SSE 50 ETF option. Meanwhile, China has a first-line multi-headed regulatory model, as well as one bank and three committees and their derivatives agencies responsible for the supervision of the derivatives market. Options can be divided into call options and put options. Futures and options markets adopt a margin system, enabling investors to pay a certain percentage of the margin corresponding to their positions to trade without paying the full amount of capital. Besides, options have a neutral hedging strategy-- Delta neutral strategy that prevents the value of the portfolio from being affected by changes in the price of the underlying asse. The Delta model calculates futures option margins based on the probability of execution. The position required for a delta hedge can be established by buying or selling a certain amount of the underlying asset. A market maker (or other market participant) in an option can also establish a delta hedged position with the underlying option. When the option transitions from a vanilla option to a real option, the margin level of the optimization model can increase rapidly, surpassing the level of the delta model, or even the traditional model. As real options can be executed at any time, the margin level of the optimization model basically reaches that of the traditional model, achieving complete risk coverage. Despite the shortcomings such as inactive trading of some far-month contracts and low customer awareness of options, China's options trading is still moving forward in twists and turns.

Futures and options, both as hedging financial instruments, enjoy price discovery, value preservation and speculative functions. There are still some differences despite the fact that the trading objects are standardized contracts and both are traded through open bidding in futures exchanges. For example, options are one-way contracts and futures contracts are two-way; options only require margin from the seller, while futures require margin from both sides; options contracts have a certain value in themselves, while futures are a form of trading; options are bought and sold by the purchaser at an agreed price on the expiration date, while futures are paid first and delivered later.

HEDGING STRATEGIES

Long Position vs. Short Position

The basic function of futures markets is price discovery and risk aversion. A well-functioning futures market can eliminate price uncertainty caused by production time lags as well as other natural and technical factors.

In futures trading, those who buy futures contracts are called long and those who sell futures contracts are called short. A short position, also known as “short-selling” or “short-buying and short-selling” (in Singaporean and Malaysian terms), is the opposite of a long position. It refers to an investor borrowing securities from a brokerage firm in order to sell without holding them. The short position has to be covered within the same day, otherwise it cannot be delivered (deliver to the buyer of the securities he has bought) after the close, which constitutes a default delivery. A short position is one of the speculation methods in the exchange. Domestic companies listed abroad face opportunities and challenges of short selling because of information asymmetry. It is for this reason that short selling requires investors to be capable of judging the overall market trend, grasping the rhythm of stock price operation, selling while the stock price is rebounding and buying while the stock price is plummeting. Investors should also avoid the short trap, which usually occurs when the index or stock price falls from a high area to a new low area with high volume, which causes the illusion of a downward breakout.

After panic selling, the price will recover to the original dense trading area and break the original pressure line, so that the sellers will miss one step.

A long position means that investors are bullish on the stock market and expect the stock price to be bullish, so they buy the stock at a low price and sell it when it rises to a certain price to gain the difference. Generally speaking, people usually call the stock market "bull market" when the stock price keeps rising momentum for a long time. Its main characteristic is a series of large rallies and small declines. Investors sticking to the long position will buy long in the market, i.e., open long positions or buy stocks in anticipation of making profits when the market rises. The basic investment strategy in bull markets is to hold stocks. Investors should also guard against the bull trap, which usually occurs when the index or stock price reaches new highs, then quickly slides down below the previous support level, resulting in a serious hedge for investors who have bought at the high level.

Hedging

Hedging makes use of the futures market to transfer price risk, regarding futures contracts as a temporary substitute for commodities in the spot market in the future, and insuring the price of commodities it buys now in preparation for selling later or that needs to buy in the future.

Some scholars argue that in the case of hedging, if the market-to-book ratio is cited to measure the growth potential of firms, the higher the former is, the more reluctant firms are to engage in hedging. Some scholars also argue that hedging exerts no effect on firms' value. The MM theory, for example, believes that if the market is perfect, any financial decision by a firm that includes hedging will not change the value of the firm. It is found that there is no statistical correlation between a firm's risk characteristics and the use of hedging instruments. In other words, hedging instruments have no impact on the firm's operating results. While hedging may have a negative effect on a firm's value. For example, in the aftermath of the Southeast Asian financial crisis, companies that used hedging instruments had their operating results affected by economic fluctuations, and their business conditions deteriorated to varying degrees. Hedging instruments can effectively reduce the performance fluctuations during the operating process and thus increase the value of the firm. In addition, tax analysis theory suggests that whether an enterprise can improve its value by using hedging tools depends on the tax burden function. When the function is convex, the enterprise can effectively improve the stability of its income thanks to the tax shield effect.

In China, due to the lack of relevant experience and talents of some enterprises, their hedging operations are at a low level and costly, which makes the hedging enterprises vulnerable to significant losses. Meanwhile, due to the strict market control, many enterprises operate illegally and participate in foreign derivatives trading through unlawful channels. Most of their trading products are not traded formally through the exchange, and they are designed and peddled by investment banks through private agreements between the two parties.

There are problems of missed exit opportunities and too frequent position adjustments in terms of the traditional option hedging strategy. Therefore, the relevant departments can further optimize the traditional hedging strategy and increase the exit mechanism and the relevant guidelines for dual camera decisions in position adjustments. For the enterprise itself, it should establish the optimal dynamic option hedging model based on the value at risk under the conditions of meeting the budget, expected return, and position constraints, so as to achieve the effect of the traditional dynamic hedging strategy.

CONCLUSIONS

This thesis combines the existing futures option system in China and the developing trend of international hedge funds, studies the status-quo of researches on hedge fund development at home and abroad as well as analyzes futures options' regulation on hedge funds in China. Based on the above research, the following conclusions can be drawn:

Firstly, in terms of the history of hedge funds at home and abroad, it can be seen that hedge funds in China need to be further developed, and various related systems and top-level designs have not yet been established.

In the context of economic globalization, with the further deepening and opening of China's financial system reform, the accession to WT0, the development of RMB free convertibility as well as the establishment of the domestic financial market, especially the derivative financial instruments market and the opening up of the capital market, there is a possibility and reality for the emergence of hedge funds in China. The development of foreign hedge funds has set a fine example for China's fund industry. At the same time, as for problems such as high threshold of investor access and immature regulatory mechanism, relevant departments should establish systems as soon as possible to lower the threshold on the basis of the status-quo of hedging funds.

Secondly, as far as the arbitrage function of hedge funds is concerned, it is important to control financial systemic risks and improve the stability of financial markets. Meanwhile, in the process of developing and operating financial products, it is essential to pay attention to the ratio of risk to return.

Finally, relevant institutions should improve the system related to hedge funds, including improving the market access system and registration system for asset managers, strengthening the monitoring of daily transactions conducted by asset managers, and the information disclosure system. The SFC and other regulatory bodies should clarify the relevant systems and regulations for the asset management business of futures companies from the perspective of supervision, so as to avoid a regulatory vacuum for hedge funds due to the absence of required systems, and thus avoid the frequent flow of large-scale funds that could bring immeasurable financial risks.

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