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Research on the Performance of Hedge Funds with Different Strategies in the 2008 Financial Crisis

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Abstract: The financial crisis of 2008 affected hedge funds of all types and with different strategies to varying degrees. In this article, I will examine the performance of five strategies during the crisis and the reasons for this. In 2008, managed futures strategies returned 19.31% because the futures market mainly deals with commodities, which are highly volatile and trendy, and managed futures strategies, which are mainly trend-based, are more likely to achieve excellent returns in this market. The macro strategy returned 3.34% because the strategy executors focused on the overall economic fundamentals and potential crises. Because the macro strategy has a global coverage of investments and multiple species, there are more options to hedge against risks when they arise. The long/short equity strategy returned -19.26%. The long/short equity strategy is predominantly long, with significant losses on long trades outweighing gains on short positions resulting in an overall negative return. The event-driven strategy returned -20.30%. Major corporate events often suffer from various resistance to proceed correctly in the case of a financial crisis. I hope my research will help investors allocate their investments appropriately according to the characteristics of different strategy funds.

Keywords: hedge funds, 2008 financial crisis, returns, strategies

1. Introduction

The 2008 financial crisis was a global financial tsunami caused by a large number of subprime loans issued between 2003 and 2006, as well as concentrated defaults in 2007, culminating in the collapse of Lehman Brothers in 2008. Many mortgages with weak repayment capacities and low credit ratings were the root cause of this crisis. When the housing bubble burst, why did the banking system fail rather than just the housing sector of the economy? Banks' two strategies to circumvent regulatory capital requirements are critical to the answer. They temporarily shifted such assets to off-balance-sheet entities to avoid maintaining substantial capital buffers against particular assets, such as securitized mortgages. Second, the capital laws allowed banks to keep less capital against asset-securitized mortgage tranches with a AAA rating on their balance sheets. Therefore, whether kept on or off their balance sheets, banks multiplied their capacity to extend loans many times by repackaging mortgages into mortgage-backed securities. However, the primary outcome of this regulatory arbitrage was to concentrate the risk of mortgage defaults in the banks, which led to their insolvency when the housing bubble burst [1]. The credit market, capital market, and real economy

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eventually collapsed, impacting the worldwide industrial chain, the murky financial climate in the US, and the lax regulatory climate [2]. There are many studies on the performance of hedge funds in the financial crisis [3-5]. Most researchers only compare or summarize the performance of hedge funds and various indicators in 2008 based on data or study the correlation between their variables of interest and the performance of hedge funds through mathematical means [6,7]. However, it is less common to study and compare different strategies separately. I select four strategies (managed futures strategy, macro strategy, long-short equity strategy, and event-driven strategy) that are more characteristic and representative, study their nature, and analyze why they produced different performances in the 2008 financial crisis. I would like to start with the characteristics of the different strategies and discuss the reasons behind the different performances in depth. Data indicators are critical, but digging into the causes behind the data is even more important and helps investors to allocate their assets more wisely. In this article, I will explain the details of the various strategies and then discuss how the financial crisis has played out with these specific strategies. Our world will always face various uncertainties, and I hope my research can help people understand these strategies in depth so that investors can choose the right strategy to reduce risk and increase returns when the next crisis comes.

2. Research

In comparison, managed futures strategies rank first in return, macro strategies rank second, long-short equity strategies rank third, and event-driven strategies rank fourth. Below I will examine the performance of each of these four strategies in descending order of return and the reasons for this performance.

2.1. Managed Futures Strategy

According to the data provided by eureka hedge, managed futures strategies returned 19.31% in 2008. Managed futures strategy hedge funds mainly invest in commodity, foreign exchange, and financial futures. The investment instruments of CTA funds are mainly futures and options, including commodity futures and options and financial futures and options. From the perspective of investment research and trading methods, CTA funds can be divided into two types; one is subjective CTA, that is, the fund manager based on fundamentals, research or trading experience, subjective judgment of trends to determine the timing of buying and selling; the other is quantitative CTA, is through the analysis of the establishment of quantitative trading strategy model, by the model generated by the buy and sell signals for investment decisions. For example, a trend strategy is used when the relevant indicators show that the market trend is no longer. An arbitrage strategy is used when the pair spread is outside the historical range and a stop-loss instruction is strictly enforced. Commodity futures markets have ups and downs, and trends are very pronounced. For the futures market, 2008 was a particular year, with crude oil surging to $147 in the middle of the year and falling to $32.40 by the end of the year; copper falling from nearly $9,000 to below $3,000; soybeans from 1,650 cents to a low of 776 cents, while gold came out of a stand-alone market, with most commodities falling by more than 50%, compared to gold's decline from the year's high of just 33.91%. In the agricultural market, the continuation of the sharp decline since the beginning of July 2008, the CRB index, which marks the trend of commodity prices, was accelerated in early August, and the curtain of the bull market in agricultural products fell slowly. From the low point in early December 2008, the Chinese market of soybeans has risen by nearly 20%, soybean meal, and rapeseed oil by about 15%. cta strategy because of the long-short conversion flexibility, the bear market can also turn short and hedge gains so that the product can be better controlled and the cost performance is better. Along with colossal volatility and stronger up and down trends, trending CTA

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strategies performed well, while trending strategies also dominated managed futures strategies. As a result, managed futures strategies performed very well in 2008, with returns far exceeding other mainstream strategies, and are known as crisis alpha strategies. In times of crisis, managed futures typically generate positive returns across all markets, giving investors a crisis alpha. This is partly due to the distinct advantages of diversification, and the gains in the other asset classes more than makeup for the poor performance in the crisis sector. Second, CTAs typically have a long bias before the market's price high, which eventually reduces due to their propensity to follow trends. Managed futures strategies have a great deal of flexibility in the face of risk, so they can act promptly when faced with highly volatile markets once a key buy or sell signal appears, and they can track trends better than other strategies in the face of strong trends. In addition, the commodity (precious metals) and currency sectors exhibit different dynamics because of their dual function as an investment class and a haven for investors. Finally, we contend that trend-following and diversification—the two previously mentioned factors—are responsible for CTAs' consistent returns during times of crisis. Their performance, on the other hand, is the result of appropriately changing positions rather than the ability to predict a disaster [8].

2.2. Macro Strategy

According to data provided by eureka hedge, macro strategies returned 3.34% in 2008. In order to generate high returns, macro strategy hedge funds leveraged bets on foreign exchange, stocks, bonds, futures, and options globally by identifying imbalance mismatches in financial asset prices using macroeconomic fundamentals. Therefore, the research team of Macro Strategy must have been aware of the concentrated default of subprime loans in 2007 and the overheating of US real estate and made an excellent risk hedging layout in advance. Macro strategy hedge funds typically profit off macroeconomic trends and develop investment strategies based on global macroeconomics. They invest in various asset classes, including stocks, bonds, foreign exchange, currencies, commodities, etc. They make long or short-leveraged investment trades in the capital markets of different nations worldwide. Macro strategy is an investment strategy covering the whole world, mainly through macro research of different economies, to make a corresponding investment, covering a wide range and, simultaneously, very abundant choices. Hence, the risk is relatively diversified and can be hedged more comfortably during a crisis. Notably, using a variety of economic indicators, the global macro hedge fund will first evaluate the current economic cycle and its approximate duration before selecting the appropriate investment types in line with the cycle. Global macro hedge funds primarily generate returns by choosing diverse asset types. In the economic recovery stage, they will choose stocks for investment; in the overheating stage, they will invest in commodities; in the stagflation stage, they will hold cash; and in the recession stage, they will invest in bonds. Therefore, macro strategies that use global assets as investment targets and tailor strategies to the economic cycles of different economies have shown strong resilience in the face of the financial crisis that originated in the United States. This reinforces the rationale that diversification helps to spread risk.

2.3. Long-short Equity Strategy

According to data from the eureka hedge, the long-short equity strategy returned -19.26% in 2008. The long-short equity strategy is a long strategy with a small amount of shorting to moderate risk, focusing on equities, and in 2008 the major global equity markets were strongly hit. In 2008, the FTSE 100 index fell 31.33%, the S&P 500 index fell 38.49%, and the SSE index fell 65.39%. With the general decline, the vast fall, and the long fall time, it is difficult for long-short strategies that focus on the stock market and are mainly long to achieve positive returns. Moreover, since the long-

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short equity strategy is mainly long, not only is it difficult to obtain positive returns, but the magnitude of losses is also enormous. Even with a short position as a hedge, it is difficult to hedge losses significantly in the face of a sharply declining market, as there are more longs than shorts on a percentage basis. Therefore, people should be vigilant when making asset allocations; if they are risk averse and have low confidence in the future market trend or even believe that the market is at risk of a crash, they should be cautious of the long-short equity strategy. They should not set a proportion of it in their portfolios too high because the strategy is mainly long. In the face of a sharp downward stock market, obtaining positive returns or even controlling losses in a smaller range is difficult. It is even difficult to keep losses within a small range. At the same time, we should note that the long-short equity strategy only invests in the stock market, so the trend is only related to the stock market, and it is difficult to get rid of the risk in case of a stock market crisis.

2.4. Event Driven Strategies

According to data provided by eureka hedge, the event-driven strategy returned -20.30% in 2008. This strategy concentrates investments in securities of specific companies going through or will go through significant events or transformations, such as mergers, acquisitions, restructuring, financial crises, takeover offers, stock buybacks, debt swaps, securities offerings (directed offerings), or other recapitalizations, etc. In the context of the financial crisis, companies were already in trouble, and it was much more challenging to get back to regularity than before. 2008 saw a severe contraction of the market value of stocks and bonds, making it difficult and costly for companies holding such assets to cash out. The chain reaction of various bond defaults led to a severe risk of a break in the capital chain of many companies. Event-driven strategies profit from the market's "ineffectiveness" when a significant event occurs. Due to the complexity of the event and the uncertainty of the outcome, there will be "invalidity" in the market's digestion and feedback of information when there are significant political or economic events, as well as significant events like mergers and acquisitions, bankruptcy, restructuring, and significant capital structure changes, making the price of stocks, bonds, and other related securities overvalued or undervalued. The possibility of overvaluation or undervaluation of stocks and bonds. Event-driven strategies capture this opportunity for profit by taking advantage of the information and analysis related to the event. Global M&A volume in 2008 totaled $289 trillion, a decrease of nearly one-third compared to last year and the lowest level since 2005. Event-driven strategies involve investment actions that have seen failure rates soar due to poor market conditions, severe capital shortages, difficulty servicing debt, and difficulty cashing out equity. In the case of M&A and restructuring, for example, even if everything goes smoothly and the company's valuation theoretically increases, the company's market capitalization will be severely compressed due to the harsh market environment and lack of investor confidence. According to the 2009 list of the Fortune 500 companies released by the Financial Times, the market value of the Fortune 500 companies has fallen from $26.8 trillion in 2008 to $15.6 trillion in 2009, a shrinkage of nearly 42% due to the global financial crisis. During the 2007/2008 crisis, the underpricing of stocks caused by fund ownership linkages significantly reduced corporate investment and employment [9]. During the crisis, credit tightened significantly, and companies' financial policies were affected by changes in the availability of finance and credit, which meant a threat to their operations, sustainability, and growth, with the most financially troubled companies suffering the most significant consequences of the credit crunch [10]. As a result, event-driven strategies lost much money in 2008.

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3. Conclusion

By studying and comparing four strategies, namely managed futures strategy, macro strategy, event-driven strategy, and distressed debt strategy, we found that managed futures strategy performed the best in 2008 with a return of 19.31%. In a financial crisis environment, achieving high returns in the equity and bond markets is tough, and achieving positive returns has outperformed many other strategies. I found through my research that in order to get good performance in the financial crisis, first of all, to effectively detect and use the trend, the excellent performance of managed futures is the best proof; secondly, to diversify investments to global markets, and invest in multiple species, when the crisis comes, the choice of objects used to hedge risk will be more abundant. The research in this paper is cursory and does not provide a precise quantitative correlation of each indicator. Later researchers are welcome to build on this paper to conduct more thorough and data-driven research.

References

[1] *Acharya V V, Richardson M. Causes of the financial crisis[J]. Critical review, 2009, 21(2-3): 195-210.*

[2] *Mohan R. Global financial crisis: Causes, impact, policy responses and lessons[J]. Reserve Bank of India Bulletin, 2009: 879-904.*

[3] *Ben-David I, Franzoni F, Moussawi R. Hedge fund stock trading in the financial crisis of 2007–2009[J]. The Review of Financial Studies, 2012, 25(1): 1-54.*

[4] *Shadab H B. Hedge funds and the financial crisis[J]. Mercatus on Policy, 2009 (24).*

[5] *Strömqvist M. Hedge funds and financial crises[J]. Sveriges Riksbank economic review, 2009.*

[6] *Schaub N, Schmid M. Hedge fund liquidity and performance: Evidence from the financial crisis[J]. Journal of Banking & Finance, 2013, 37(3): 671-692.*

[7] *Sung S, Chun D, Cho H, et al. Hedge fund market runs during financial crises[J]. Economic Research-Ekonomska Istraživanja, 2021, 34(1): 266-291.*

[8] *Asif R, Frömmel M, Mende A. The crisis alpha of managed futures: Myth or reality?[J]. International Review of Financial Analysis, 2022, 80: 102045.*

[9] *Hau H, Lai S. The role of equity funds in the financial crisis propagation[J]. Review of Finance, 2017, 21(1): 77-108.*

[10] *Mac an Bhaird C. Demand for debt and equity before and after the financial crisis[J]. Research in international Business and Finance, 2013, 28: 105-117.*