Derivatives Trading in the 2015 A-share Bubble

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ABSTRACT
Since June 2015, the Chinese stock market crisis has brought a massive impact on the Chinese financial market. This paper focuses on the internal relationship between the high leverage ratio and the stock market crash before the "stock market crash." It analyzes the causes of the "stock market crash" based on the Marxist new market theory. It is of great practical significance to study the causes of the "stock market crash" in 2015 in China to stabilize the stock market and maintain national economic and financial security and social stability. It must be noted that from February to April 2015, the SSE 50ETF option, 10-year Treasury bond futures, SSE 50 stock index futures, and SSE 500 stock index futures were launched respectively. This paper also focuses on the role of these financial derivatives in the stock disaster. This paper aims to study the financial derivatives trading and its influence on the A-share bubble in 2015, and give some suggestions to policymakers through the form of specific stock research.

Keywords: *Derivative, A-share, stock, trading*

1. INTRODUCTION

From June to August 2015, China's stock market went through two rounds of cliff fall, which caused widespread concern in society. The stock market disaster showed different abnormal fluctuation phenomena. China's A-share market has suffered huge market value losses in a short period, with more than 1,000 stocks falling by the daily limit and even a large number of listed companies suspended from trading. This paper analyzes the impact of the stock market crash on the economy, the negative impact on consumption, investment, and the financial system. It will deepen financial reform and establish a regular and transparent communication mechanism to stabilize market expectations. A stable and market-compatible institutional system must be established to meet market needs.

To understand derivatives trading in the 2015 bull bubble, it is crucial to exam the reasons for this bull bubble. After summarization, the reasons for the bull market in 2015 can be divided into three points. Since the beginning of 2015, China's stock market has been rising with a vengeance. Since 2014, A-shares have undergone tremendous changes. In 2014, the Shanghai Composite index rose 53%, and the Shenzhen Component Index rose 34%, outperforming global stock markets [1].

First, as macroeconomic growth slows down and the new government takes office, the country needs to find new driving forces for economic development. Therefore, it tilts resources towards high-tech and other technology industries, foreshadowing the growth enterprise market. From 2013 to 2015, GDP growth continued to decline slightly, from 7.9% in the first quarter of 2013 to 6.9% in the fourth quarter of 2015. PMI fluctuated between 49 and 51 and was basically below the boom line in 2015. The year-on-year growth rate of new fixed-asset investment, a retail sales growth rate of social consumer goods, and export growth showed a downward trend. In terms of the economic driving force, the contribution of investment to GDP continues to decline, while consumption rises steadily, and the net export remains around 0% [2]. The economy has bid farewell to the period of high-speed growth, and the economic growth rate has gradually stepped down. In economic structural transformation, the old drivers of economic growth are no longer sustainable, and there is an urgent need to find new ones. In the first quarter of 2013, the contribution of the tertiary industry to GDP reached 52.4% for the first time, surpassing that of the secondary industry for the first time. After that, the tertiary industry's contribution to GDP reached 55.9% in the fourth quarter of 2015. The main driver of economic growth has shifted from the secondary industry to the tertiary industry. In addition, investment in fixed assets has shifted to high-tech and other scientific and technological industries, and the focus of economic development has shifted to fostering new growth points.

Second, the loose monetary policy provided the liquidity base for the bull market. In 2014, monetary policy was eased at the margin, shifting from targeted easing to comprehensive easing. In 2014, the central bank targeted cuts to the reserve requirement ratio in April and June and lowered the one-year lending rate by 0.4 percentage points and the one-year deposit rate by 0.25 percentage points in November. Under the background of RRR and interest rate cuts, the overall liquidity environment in 2014 was relatively loose, and the M2 growth center remained at about 13%, much higher than the nominal GDP growth rate of 8.5%. In terms of interest rates, the yield on the 10-year Treasury fell from 4.5% at the end of 2013 to 3.5% at the end of 2014. In 2015, monetary policy shifted to comprehensive easing, with five interest rate cuts and five reserve requirement ratios. In 2015, the CENTRAL bank cut interest rates five times, lowering the one-year benchmark deposit and lending rates 125BP to 1.50% and 4.35%, respectively, lowering the required reserve ratio five times (including two targeted cuts), and lowering the statutory reserve ratio by three percentage points [3]. The seven-day reverse repo rate was lowered to 2.25% from 3.85% at the beginning of the year.

Third, capital market reform provides a policy foundation for a bull market. A new round of capital market reform kicked off, supervision into the relaxation cycle. In the face of the economic downturn since 2012 and the high debt pressure, the development of the capital market calls again. With the change of chairman of CSRC on March 17, 2013, a new round of capital market reform officially started [4]. As the first year of a new round of reform, the whole year centered on improving the multi-level capital market system, such as launching the RQFII pilot program, extending the new Third Board pilot program to the whole country, reviewing mergers and acquisitions and restructuring, cash dividends, developing the asset management business of securities brokers, improving the new issue system, mergers and acquisitions and restructuring of new shares, preferred shares, and other pilot programs. The resumption of IPOS in 2014, the deregulation of gem refinancing in May 2014, and the deregulation of mergers and acquisitions in November 2014 ushered in a golden age of expansion in the stock market. In 2015, China launched the most significant number of financial derivatives on the market. From February to April 2015, SSE 50ETF options, 10-year Treasury bond futures, SSE 50 stock index futures, and China Securities 500 stock index futures were launched. The original purpose of financial derivatives was to hedge risks, but by June to August 2015, the stock market crash immediately occurred. From 2014 to 2016, A-shares ushered in a golden age of private placement, with the quarterly average number of private placement implementations reaching about 175. In the fourth quarter of 2015, the number was as much as 333 [5]. The rapid rise of the small and medium-sized Innovation boards has become an essential driver of the Growth Enterprise Market.

2. DEDUCTIVE REASONING: THE ROLE OF LEVERAGED FUNDS AND STOCK INDEX FUTURES IN THE 2015 A-SHARE BUBBLE

2.1. The role of Leveraged funds

In stock market crashes, falling stocks lead to investors being liquidated in turn according to their leverage ratio. Investors with a high leverage ratio are liquidated, and their stocks are sold, which leads to further declines in stock prices. Investors with low leverage ratios are liquidated, which leads to funding redemption and other problems, exacerbating the liquidity crisis.

After the "comprehensive bull" in the first half of 2015, consumers were enthusiastic, and illegal capital allocation poured in quickly. P2P companies, small loan companies, guarantee companies, and other market forces have entered the market for capital allocation, and some illegal underground banks have also taken a share of the pie. A considerable amount of capital has made the market expand rapidly. Many companies use "tripartite agreements" to provide matching services to small investors, circumventing the platform's rules that do not allow them to build their pools of capital.

At the broker level, the CSRC's response was early but not influential before the first plunge. Eventually, the money kept coming into the market. Take the futures market as an example. [6]The damage of the stock market leads to the damage of long futures and the decline in the value of commodity futures, which fails to realize the role of hedging and exacerbates market volatility. After plummeting in 2015, futures holdings did not recover to the level of five years ago until 2020, according to data released by the CSRC.

2.2. Stock index futures

In the process, stock index futures is the prime culprit. Take The Shanghai Securities News as an example. The media believes that among the three major stock index futures, the China Securities 500 futures contract (IC1507) is the "main short-seller," each time the first to fall, killing the fastest. There are three reasons for this:

Firstly, IC1507 has the smallest market size, easy to be controlled by capital, and has a low operating cost. Moreover, IC1507 corresponding spot - the small market value of stocks is also the early rise of the larger. Secondly, a short IC1507 hair force can produce market panic through the index linkage effect, driving other indexes down. Thirdly, this is because non-brokerage channels mainly provide the financing of the small and medium cap, umbrella trust funds. They can buy the subject matter outside the SECURITIES Regulatory Commission Liang Rong stock pool. Financing for large-cap stocks is provided on the floor and monitored by the CSRC.

2.3. Other monetary policies and their risk

Since 2014, the actual economy has been cold. The central bank adopted the monetary policy of continuous reserve ratio reduction and interest rate reduction, which was intended to alleviate the financing problems of the real economy. However, after the stock market crash, it promoted the bank funds that entered the stock market through over-the-counter capital allocation and other means, aggravating the bubble. In addition, the threshold of financial leverage instruments is not in line with the interests of the majority of small and medium investors (90.9 percent of individual investors are excluded according to the Measures for the Administration of Margin lending and short Selling Business of Securities Companies), which also exacerbates illegal capital matching. There are two main points in monetary policy :(1) the change of trading mechanism, from T+0 to T+1; (2) Strengthen hedging management, suspend IPO in the short term, and introduce the stock market circuit breaker mechanism from January 1, 2016, in the long term [7].

In addition, propaganda and legal means have also played a role. However, it can not be ignored that the relatively stable "plateau" during the stock market crash shows that the effect of the spontaneous market adjustment is still apparent.

3. THE RELATIONSHIP BETWEEN THE FUTURES MARKET AND SPOT MARKET

The stock index futures market provides an effective hedge against falling spot market prices as a risk management market. When the liquidity of the spot market is exhausted, it also plays a positive role in sharing the selling pressure of the spot market, which is conducive to calming the market fluctuations caused by irrational factors.

3.1. Index futures market short to hedge the spot market long

During the crash, investors in the period, the spot market is generally in the net long. They hold a large number of stock spots, to reduce the risk of holding, hedging, and arbitrage strategies are mainly adopted in the futures market to sell positions. During the stock market crash, as the overall selling position of investors in the stock index futures market is lower than the market value of their spot holdings, the overall market shows a trend of net overholding. For example, on June 15, 2015, securities companies involved in stock index futures sold less than 150 billion yuan in total positions. Their total holding value of the current stock market was more than 250 billion yuan, with a total net long of more than 100 billion yuan [8]. Thus, selling a position in the futures market is intended to hedge the investor against a decline in his current stock holding, which also reduces the impact of selling the stock on the stock market.

3.2. Stock index futures markets provide additional liquidity for investors

In this stock market crash, the substantial impact of stock index futures on the spot market is mainly reflected in diverting and absorbing spot selling pressure. Without the hedging arbitrage function of stock index futures, investors can only choose to "cut flesh" and sell their stocks to avoid various systemic risks. Since equity markets are illiquid during a crash, these sell-offs will likely cause share prices to fall off a cliff. Through the hedging arbitrage operation of stock index futures, investors can transfer the pressure of shorting or selling from the spot market to the futures market. Because futures markets are more concentrated, flexible, and liquid than the physical stock market, traders can choose to hedge their risks in futures markets rather than directly suppressing the already illiquid physical stock market [9]. This effectively mitigated the liquidity shock to the spot stock market.

3.3. The influence of futures market on the spot market

From the stock market crash in 2015, the phenomenon of futures falling first and spot falling later is obvious. However, there is no causal relationship between the two, and it will not change the direction of stock market operation. Theoretically, the price trend of index spot and index futures is determined by the macroeconomic background and the fundamentals of listed companies. In terms of trend data, stock index futures and stock spot prices rose and fell in the same direction during the stock market disaster, and there was no deviation from the rise and fall [10].

Compared with spot, futures reveal information faster, more accurately, can play a complementary and perfect role in spot pricing. Since June 2015, with the continuous rise of the index, the P/E ratio of China Securities 500 is as high as 62 times, the P/E ratio of the GEM is as high as 140 times. Hence, the discount of China Securities 500 stock index futures keeps deepening [11]. Under such circumstances, investors shorting the overvalued CSI 500 index in the futures market is relatively strong, reflecting the futures market's price discovery function.

3.4. Guidance and management of investors

It is vital to develop institutional investors and establish correct investment concepts. The violent fluctuations and the prevalence of speculation in the A-share market are not unrelated to the retail investor structure in China. At present, individual investors account for about 85% of the market transaction share, leading to the general idea of sudden wealth in the market and a solid speculative atmosphere. Professional, institutional investors, have strong research ability, a strict trading system, and a relatively perfect hedging system. They can use financial derivatives such as stock index futures to hedge the risk of market decline. Therefore, it is necessary to cultivate and develop professional vigorously institutional investors, give tax incentives to qualified institutional investors to encourage their development, accelerate the introduction of deferred personal income tax old-age insurance and pension into the market, and sort out the concept of financial management of professional institutions [12]. In addition, the investigation and punishment of stock price manipulation and insider trading should be strengthened to ensure a fair, just, and transparent market.

4. CONCLUSION

Deleveraging is the direct cause of this stock market crash. However, there is also the influence of exchange rate depreciation behind it, making the deleveraging non-leveraged funds flow out of the stock market rapidly. China's economic slowdown has led to lower exports and higher imports, On January 14, 2014, after arriving at RMB 6.04 to the dollar peak began the trend of depreciation, do not rule out in May 2014 to 2014 in November for a revaluation of the call-back. However, in November 2014, again opened up the trend of depreciation, reduced the rate of return on investment for devaluation, which makes to leverage the original Due to trigger the sell-off, withdraw from the stock market funds, and faces in the absence of any proceeds of assets as a result of depreciation, hedging, withdrawal of funds in the stock market, and combined with other aspects of consciousness to the depreciation and left China funds to trample, the yuan's depreciation pressure becomes more excellent. Under the joint pressure of various parties, the devaluation of RMB started on August 11, 2015. The devaluation of RMB also answered whether RMB would depreciate in the market. The market began to sell RMB and renminbi-denominated assets, which harmed the stock market, gradually recovering under the market rescue policy. Therefore, the policies of various departments of the state should strengthen coordination. The pressure of RMB depreciation should be released in advance before the bailout or in the bull market stage to reduce exchange rate factors' sterilization on the bailout policy's effect. At the same time, although investors are sensitive to policies, they can influence investors' behaviors through policies to rescue the market. However, the value of RMB reflects the confidence of domestic and foreign investors in the assets priced in RMB.

Therefore, maintaining the value of RMB and avoiding the trend of RMB devaluation is the key to retaining domestic and foreign funds. Keeping the value of the renminbi stable helps balance the market and provides a powerful monetary tool when the market shrinks.

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