Prediction and Tracking Test of the Top of Shanghai Stock Index

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ABSTRACT
Mr. Zhou Jintao has predicted that the Shanghai Composite Index will have a historical bottom in 2019 and 2030, and a historical top in 2035. As for when the top of the bull market between 2019 and 2030 will come, Mr. Zhou left no prediction, for reasons unknown. However, people can still deduce from Mr. Zhang's three time nodes where the top of the bull market is. Whether it is to test Zhou Jintao's prediction, or for the majority of securities investors, it is interesting and meaningful to predict and track the top of the bull market between 2019 and 2030 in Shanghai stock index. From the technical analysis point of view, according to the cycle theory, this paper deduces the coming time of Shanghai stock index's future top, and according to the technical characteristics of the top of the stock bull market, puts forward the method of tracking and testing the prediction results, which provides a reference for investment analysis.

Keywords: Shanghai stock index, Forecast, Top, Test

1. INTRODUCTION
Investors and investors are generally concerned about when the top of the bull market will come. The top of the bull market is also a topic of serious concern to many institutional investors and relevant economic activity personnel. It is of great practical significance for investors to deduce in advance when the top of the bull market will come. Because if we can know the time when the top of the bull market will come, investors who are long in stocks and stock index futures will be able to have a clear idea of what to do before the top of the bull market and have confidence in buying, and they will be at ease in their positions. When the top of the bull market comes, selling at the top will be ruthless, decisive and clean to achieve investment goals. Short sellers will short at the top of the bull market, while stock index futures traders will carry out long short conversion at the top of the bull market. The key question is: where is the top of the bull market? It's a prediction problem. Based on Mr. Zhou Jintao's prediction conclusion, combined with relevant investment analysis, we will deduce the possible arrival time of the bull market top in the future, and put forward the strategy and method of response tracking test for investment analysis reference.

2. ZHOU JINTAO'S PREDICTION

2.1. Kondratiev Forecast
Also known as the long wave length of Kondratiev wave. In a paper published in 1926, the Russian economist Kondratiev proposed and preliminarily verified the existence of communication. In Zhou Jintao's three cycle nesting, the author first answers the big question of whether the economic cycle is out of date. In order to answer the essential question of business cycle, including how does business cycle come into being? How to conduct it? How does it evolve? This paper introduces and summarizes the mainstream business cycle theories: the cycle mechanism under Keynesian marginal decline rate; the business cycle under the effect of multiplier accelerator of neo classical school; the cyclical fluctuation from depression to prosperity under Hicks' super multiplier; the monetarist cycle theory of pure currency phenomenon; the inevitability of prosperity and depression under the imbalance of Hayak structure and Schumpeter's basis. The cycle nesting theory of innovation. Based on the comprehensive analysis of the business cycle theory of the mainstream economic school, this paper puts forward the selection principles of the cycle theory as the seller research, including rationality, foresight, openness and observability. Therefore, four stage theory, i.e. dependent wave theory and periodic nesting theory, is proposed. The model divides the business cycle into four stages: prosperity, recession, depression and recovery. Schumpeter thinks that innovation is the driving force of economic development and economic fluctuation. The length of this innovation cycle is uncertain. Innovation is discontinuous, unstable and uneven, and at the same time, it has diversity. Because the impact of economic development is different, thus forming different length of cycle. Therefore, it is impossible to have only one form of cycle in reality, and the effects of different periods are different. Therefore, in order to explain the law of business cycle more vividly and effectively, Schumpeter proposed a three cycle model. The first is a long-term economic cycle of 50-60's, also known
as long wave; the second cycle is a medium cycle of 9-10 years, called medium wave, also known as zhugela cycle; the third cycle is a short cycle with an average of 40 months, called short wave, also known as inventory cycle. Schumpeter thinks that a long wave period includes about 6 zhugella cycles and 18 short periods, and a medium period contains about three short periods. The long period restricts the medium cycle and influences the background in which the medium cycle occurs. The prosperity and depression degree of the medium cycle are affected by the specific stage of the long cycle, and there is a similar relationship between the medium cycle and the short period [1].

Kondratiev put forward three empirical models to observe the long wave: after and before the rising wave, social and economic activities experienced considerable changes; compared with the downward wave, the rising wave was accompanied by more social unrest and incentive changes; during the downward wave, there was a longer and more serious agricultural recession. As for the reason why he thought that the capitalist system did not take place in part, he thought. The crisis of capitalism is self correcting and continuous cycle, so it is repeated.

There are other different theoretical explanations about the cause of long wave and why it is 50 years. According to the famous American economist Robert Rost, the fluctuation in 50-60 years is mainly related to the price fluctuation of commodities, especially the price fluctuation of agricultural products and raw materials. At first, the price of agricultural products and raw materials rose, and the agricultural products expanded rapidly, and a large number of products were produced. At a certain stage, there was surplus cash and the price began to decline. At this time, new products and new raw materials were developed A lot of new demands are generated. The price of new products is rising again, and this cycle forms a certain cycle. As for why it takes as long as 50-60 years to complete a cycle, rostor proposes that it takes a lot of time to develop new sources of products and raw materials. Kondratiev's theory has become the main business cycle theory. In fact, as Mr. Zhou Jintao said, "it has become the decisive force of global economic movement and the fundamental theory of personal life wealth planning" [1].

According to the theory of combo, people can predict the law of economic movement and the stock market is no exception.

2.2. Prediction results of Kondratiev made by Zhou Jintao

Mr. Zhou Jintao has predicted that the Shanghai Composite Index will have a historic bottom in 2019 [2]. Then Mr. Zhou Jintao also predicted that the Shanghai Composite Index will have a historical bottom in 2030 and a bull market top in 2035 [3]. When will the top of the current bull market come? Mr. Zhou did not leave any prediction, the reason is unknown. However, we can still deduce the top of this bull market from Mr. Zhang's three time nodes?

Firstly, we verify Zhou Jintao's Kondratiev wave prediction that the Shanghai Composite Index will have a historic bottom in 2019. We have verified its correctness through technical analysis [3]. The so-called historical bottom prediction test can be divided into current test and post test. The ex post test is extremely clear and concise, that is, the price of the left and right sides of the historical bottom will be higher than this historical bottom for a number of long periods, and the time period should be at least greater than or equal to one inventory cycle, that is, about three years. In other words, all prices will be higher than the historical bottom's lowest price for three years in front of and behind the historic bottom. Although the post test of historical bottom is concise, it has little operational significance. The current test of historical bottom prediction test, test the left situation, and the current trend reversal starting point situation, is more difficult, but the operation is significant, and can grasp the historical bottom area of the market [4]. Through the support test of upward trend line of Shanghai stock index, golden section test of falling range, breakthrough test of downward trend line, bottom deviation test, bottom classification test, Vegas tunnel test, rising range test, and callback range test after low start, we draw a conclusion: Shanghai stock index does have a historical bottom lowest point on January 4, 2019, and Shanghai Stock Index 2019 Kondratiev wave's prediction is correct.

Mr. Zhou Jintao, the former chief economist of China Securities Construction Investment Corporation, the pioneer of China Kondratiev wave cycle theory research, as a master strategic analyst, from the subprime mortgage crisis in 2008 to the annual rebound of commodities in 2016, Mr. Zhou Jintao's grasp of the operation context of large-scale cycle can be regarded as the "king of cycle". It can be seen that Mr. Zhou's prediction confidence is very high. The historical bottom forecast in 2019 further verifies the accuracy of Mr. Zhou's prediction. We can deduce the three time nodes given by Mr. Zhou Jintao to explore the possible time when the top of the bull market of Shanghai stock index will appear in the future. As for Mr. Zhou Jintao's test on another historical bottom of the rising index in 2030, we can still test it by testing the historical bottom of the rising index in 2019, so as to timely capture investment opportunities.

3. TIME DEDUCTION OF THE TOP OF THE SHANGHAI STOCK INDEX

3.1. Concise time deduction

According to Kondratiev wave theory, Mr. Zhou Jintao predicted that the Shanghai Composite Index will have a historical bottom in 2019 and 2030, and a historical top in 2035 [3]. As for when will the top between the historic bottom of 2019 and 2030 come? Mr. Zhou did not leave
any prediction, but we can still deduce from Mr. Zhou's three time nodes where the top of the bull market is. According to the periodic theory, the most concise way is periodic cycle. In 2015, there will be the top of the last bull market, a historic bottom in 2019, a historic bottom in 2030, and a historic top bull market in 2035. Among the top bull market in 2015 and the top bull market in 2035, it is precisely the bull market top in 2025? This is a time node. The time node between 2015 and 2035 may become the top of the future bull market. But anything is possible. According to the law of Kondratiev wave cycle prediction, there must be at least one inventory cycle between the top and bottom of the bull market, that is, at least three years interval. Therefore, the top of the bull market will not appear until three years after 2019, that is, after 2022. Similarly, the top of the bull market is not likely to appear until 2027, three years before the historic bottom in 2030. So the top of the bull market is likely to be between 2022 and 2027. Of course, this is based on the correctness of Mr. Zhou's 2030 stock market bottom forecast.

3.2. Top time deduction method of one-dimensional search method based on golden section

From the previous deduction, we can only roughly know that the top of the future Shanghai stock index will be between 2022 and 2027. Due to the large time span, it is not of great guiding significance to the operation. People still need more accurate time. It is better to reduce the time unit to months. We can more accurately deduce the arrival time of the next top of the Shanghai Composite Index. So, the question is, which year is the time when the top of the bull market will really appear in the future? On the one hand, we can track and capture the top of the bull market through the subsequent market tracking and prediction test, and we can also use the one-dimensional search method based on golden section in mathematics to carry out research [5]. The basic method is as follows: take 2019 as the starting point, 2030 as the end point, 12 years from the beginning to the end, as the length of the whole one-dimensional axis, we take the golden section point of 0.382 from 2019, that is, the year corresponding to this point, assuming that it may become the top of the bull market, pay close attention to the characteristics of the market trend in this year, and carry out the tracking prediction test of the top of the bull market. If there is no bull market top feature in the past, then this point will be cut off in this period of 2019, and the remaining time will be possible to find the top of bull market by using this method again. In order to further improve the accuracy, the region at the top of the bull market is refined from year to month, that is, the research unit is changed from year to month. The specific time is adjusted as follows: the starting point is January 2019, the historical bottom in front of the bull market is taken as the starting point, and each month from January to December 2030 is assumed to be the month where the lowest point of the future historical bottom is located. There are 12 kinds of time axes, namely, January 2019 to January 2030, January 2019 to February 2030, and so on, until January 2019 to December 2030. Based on this, a one-dimensional search is carried out to find the time period where the top of the bull market is located. We can further expand or narrow the time range to carry out one-dimensional search. For example, changing the time range from the starting point and ending point to the historical bottom in 2019 and the historical bottom in 2030 to the top of bull market in 2015 and the top of bull market in 2035, we can also refine it to months. We still assume that the bull market peak in 2035 is possible from January to December respectively, and the peak of bull market in 2015 is in June 2015, thus 12 possible time axes are constructed for one-dimensional analysis Search. We can also shorten the time axis for forecast analysis, specifically as follows: the starting point is from about one inventory cycle after 2019, that is, from 2022, and the ending point is about one inventory cycle before the historic bottom in 2030, that is, 2027. It can also be refined to months, and select January to December of these two years as the starting point and end point respectively, and build 144 combinations for one-dimensional search. It's also possible to combine the three methods. Although it's a little complicated, interested investor might as well try it. Of course, for investors who advocate the simplicity of the road and believe in the simplicity of the law, the possible period of time at the top of the bull market can be roughly set as 2025. In order to prevent accidents, 2022 and 2027 should be adopted. Starting from 2022, the market tracking and Forecasting Test of bull market top characteristics is carried out carefully to capture the future bull market top and successfully complete the investment work of long space conversion. Of course, the main tracking work will be in 2022 and 2025. If there is no bull market peak in this period, the follow-up tracking time is not expected to be too long, and it is also the most fascinating.

4. TRACKING TEST ON THE TOP OF SHANGHAI STOCK INDEX

Any prediction must be tested by practice. The Kondratiev wave forecast at the top of the bull market is no exception. There will be a number of top technical features at the top of the bull market in the future [6]. Similarly, the fundamentals, the message aspects, and so on, also have a number of characteristics.

4.1. Tracking test of technical analysis on the top of Shanghai Stock Index

Specifically, technically, the top of the bull market first shows that the price has risen sufficiently from the historical bottom, so that the golden section level can be determined by using the monthly lines of all Shanghai composite indexes, including the application of wave wave
gauge, etc. Secondly, it focuses on the top pressure bit and the recognition of K-line language, such as K-line combination, especially the top classification and shape of large period. Pay attention to the identification of overbooking and use overbooking indicators. Attention should be paid to the identification of top deviation, especially in the process of rising, the completion of the second central departure in a large cycle. Pay attention to turn recognition, through the conversion from long to short of various moving average systems such as Vegas tunnel, and all kinds of moving average falling from small to large. Pay attention to the rising trend line break and so on.

4.2. Tracking test of fundamental analysis at the top of Shanghai Stock Index

At the top of the bull market, there will be a lot of fundamental analysis features, because a round of stock bull market will cause a lot of significant changes in all aspects of society. The psychological state of investors is extremely excited. The number of accounts opened, the frequency of transactions, and the amount of financing are extremely hot. The regulatory authorities will repeatedly remind investment risks and may issue corresponding risk management measures, etc. The top of the bull market is brewing or coming, or even coming. In this way, combined with many technical analysis methods, combined with many technical characteristics of the top of the bull market to identify, and gradually reduce the position. When the technical analysis method resonates with the basic analysis method, multiple order clearing is needed. For stock index futures and short sale traders, special attention should be paid to the technical characteristics of market reversal, and empty orders should be gradually established.

4.3. Operating strategy at the top of Shanghai Composite Index

On the operational level, the bull market will seriously interfere with the minds of investors and make them irrational. Therefore, we must do a good job in the bull market before the arrival of the bull market, and the method must be simple and easy to operate. According to the survey, a very simple strategy of reducing and clearing positions at the top of the bull market is obtained, which is as follows: the average line is set as 5-day line, 10-day line, 20-day line, 30-day line and 60-day line. When the price rises to the excitement of the whole people, it is the time to prepare for the reduction of positions. The total position is divided into several parts, such as 5 shares in average. When the top of the bull market appears, there will be a long spread of the moving average. According to the daily cycle, when the closing price falls below the 5-day line, the position will be reduced by 1 share; if the closing price falls below the 10 day line, the position will be reduced by 1 share, and so on, until it falls below the 60 day line, all positions will be cleared. In this way, the above prediction has practical significance. The predicted top time period is used to guide the actual operation.

5. CONCLUSION

According to Mr. Zhou Jintao's Kondratiev wave forecast, the top of the bull market in the future may appear in the period from 2022 to 2027 with 2025 as the center. The method of tracking prediction test can be used to capture the top opportunity of the bull market. Another historic bottom may appear in 2030, and we can use the tracking test method similar to that in 2019 to seize the next investment starting point. The historical top of a new round of bull market may appear in 2035. We will adopt the method similar to that of the bull market around 2025 for tracking and identifying. Multiple orders can escape the top safely, and empty orders can be opened smoothly to ensure the success of investment. All predictions must be tested by practice. When will the bull market in the future appear? We also need to talk about the bull market. The majority of investors should calmly and rationally track and test according to the characteristics of the bull market, so as to make full use of Mr. Zhou Jintao's prediction results of Kondratiev wave to capture the opportunities of entering and exiting the bull market, so as to ensure the safety and success of investment.

REFERENCES


[2] Guo Shiliang. Will the prediction of "cycle king" come true when 2019 is approaching [N]. Financial investment news, December 22, 2018


