Strategic Rotation of Major Asset Classes in Accordance with Macroeconomic Trends: A Study Based on the Chinese Financial Market

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Abstract. This study delves into the strategic ramifications of macroeconomic policies on the asset portfolios of key categories, employing a dataset that encompasses economic indicators such as the PMI, PPI, CPI, WTI, and IVA spanning from 2009 to 2019. The research aims to discern the trajectory of economic fluctuations and assess their effects on asset allocations. Special attention is devoted to examining the repercussions of temporal discrepancies in these indices on portfolio performance. By analyzing the behavior of assets during diverse economic phases, the paper develops rotational strategies for assets that are attuned to macroeconomic trends across various cycles. The culmination of this investigation presents tailored recommendations for optimizing investor portfolio distribution throughout distinct macroeconomic phases.

Keywords: Macroeconomics, Asset rotation strategies, Hodrick-Prescott Filter

1   Introduction

The core of macroeconomic analysis lies in the in-depth study of key economic indicators, including but not limited to economic growth rates, employment levels, inflation rates, monetary policy developments, fiscal policy effects, and international trade conditions.[1] The current economic environment exhibits certain complexity and uncertainty, and there are significant differences in the performance and coping strategies of different economies. Specifically, some economies are experiencing an accelerating phase of economic recovery, while others are facing weak growth or recession. The performance of the job market has also been mixed, with employment rising in some regions, while others continue to suffer from high unemployment. Regarding inflation, most countries are grappling with the challenge of rising price levels, and central banks have adopted a series of monetary tightening measures to maintain price stability. In terms of fiscal policy, governments have implemented corresponding adjustment strategies according to their own economic conditions to promote balanced economic development. Developments in the field of international trade also have important macroeconomic implications. Changes in the global trade pattern not only affect the export and import conditions of countries, but also affect the pace of economic recovery and

growth potential. In addition, global challenges such as climate change and public health events pose additional tests for macroeconomic stability. Current macroeconomic trends reflect a diverse landscape, with different growth rates, employment conditions, inflation rates, monetary policy stances, fiscal policy measures, international trade dynamics, and potential risk factors in different countries and regions. These trends are driven by the interplay of complex factors such as global and domestic economic policies, geopolitical events, health crises such as the COVID-19 pandemic, and environmental considerations. Inflationary pressures are monitored through changes in the price level, with moderate inflation often considered a sign of economic dynamism, while extreme inflation or deflation can pose significant challenges. Monetary authorities influence economic activity by adjusting the level of interest rates and managing the money supply, with tightening policies aimed at controlling inflation and expansionary policies seeking to stimulate growth.[2] Fiscal policy is implemented through government spending and tax decisions. Proactive fiscal policy may boost the economy through increased public spending. Uncertainty and risk are also key elements of the current macroeconomic environment, stemming from geopolitical tensions, natural disasters, and ongoing public health issues such as the COVID-19 pandemic. All of these factors have the potential to disrupt the trajectory of the economy.

In such a macroeconomic environment, the allocation of major asset portfolios is particularly important as a means for investors to disperse risks and maximize benefits. Effective broad asset allocation has long been regarded as the key to successful investment. This view originated from Brinsonetal (1986), which adopted the performance decomposition method to measure the contribution of investment policies (broad asset allocation) and investment strategies (securities selection and market timing) to investment returns, and pointed out that asset allocation policies explained 93.6% of the variance of the return rate of 91 mutual funds. It then adjusted this figure to 91.5%.[3][4] Broad asset allocation refers to the allocation of capital among different classes of assets, aiming to build a diversified portfolio to achieve an optimal balance between risk and return.[5] The process involves the systematic analysis of a wide range of assets, including stocks, bonds, cash and cash equivalents, commodities, and real estate, each of which has its own unique risk-return characteristics. When implementing broad asset allocation, investors need to consider the macro picture economic indicators, market trends, interest rate movements, inflation expectations, political and economic stability, and specific risks to individual asset classes. Considering the cyclical changes in the market, dynamic adjustment strategies should be adopted to deal with potential market fluctuations. In addition, regular portfolio re-balancing to maintain established risk exposure and asset allocation ratios is a key step to ensure the consistency and effectiveness of your investment strategy. In general, the core purpose of major asset portfolio allocation is to achieve the optimal balance between risk and return. By allocating capital scientifically across different asset classes, investors can build a diversified portfolio that reduces the negative impact of single assets or market fluctuations on overall investment returns. In the context of changing macroeconomic environment and market conditions, broad asset allocation can help investors adapt to market uncertainties and reduce the systemic risk of specific asset classes through diversification. For example, when the stock market is performing poorly, bonds or other fixed income products may

provide a steady stream of income, and vice versa. In addition, major asset allocation also needs to consider investors' risk appetite, capital liquidity needs, investment period and financial goals and other personalized factors. The rotation rhythm of major assets is closely related to the macro trend, and the macro information often contains a lot of information, which can guide investors to a more appropriate allocation direction. This paper aims to depict the current macro momentum information from the dimensions of economic growth and inflation, and construct a single factor momentum strategy to screen macro indicators. Furthermore, in order to overcome the problem of high noise associated with single macroeconomic factors, this study employs methods such as cross-validation to optimize macroeconomic momentum indicators. Corresponding macro momentum strategies are constructed for backtesting purposes and are compared and evaluated against traditional investment strategies.

2   Strategic Logic

Since Merrill Lynch published the renowned report "The Investment Clock" in 2004 [6], as a breakthrough idea reflecting the internal correlation between the real economy and asset allocation, the investment clock principle has been studied by more and more scholars and is regarded by investors as a basic strategy for asset allocation of major categories. Some scholars and investment institutions in China began to study the application of the investment clock theory in China's financial market in 2009. Among them, CICC (China International Capital Corporation) was one of the earliest companies to apply the investment clock theory to China's investment market. They used the investment clock theory to analyze the performance of different industries in the economic cycle [7]. Guosen Securities also used the classic theory of Merrill Lynch investment clock to discuss the impact of economic cycle on the securities market and the industrial allocation effect of the division of economic cycle. In addition, a number of securities companies, fund companies and financial service companies have conducted certain research and empirical studies on this issue. Based on the research results of the above institutions, the following basic conclusions can be drawn:

China's economy has a very obvious cyclical phenomenon. In the four stages of the economic cycle, representative categories of assets have outstanding performance, which is highly consistent with the characteristics of the American market studied by Merrill Lynch Investment Clock.

Asset pricing errors occur in different economic cycles. Therefore, identifying changes in economic cycles and adjusting asset class and industry allocation can obtain excess returns. The purpose of this paper is to study the asset allocation strategies under different macroeconomic conditions from the impact of macro factors on asset returns.

As shown in Figure 1, the process of major asset allocation strategies in rotation in this paper is shown: First, determine the current change trend of a single macro indicator, then calculated the impact of the change trend of a single macro indicator on the return on assets, screened out indicators with relatively significant impact, and synthesized similar indicators to divide different macroeconomic states according to their

trends. Finally, the performance of various types of assets under different macroeconomic conditions is analyzed, and the asset allocation strategy is constructed based on it. According to the change trend of prosperity and inflation, the macroeconomic state is divided into four periods: prosperity up + inflation down, prosperity up + inflation up, prosperity down + inflation up, prosperity down + inflation down, prosperity down + inflation down. By allocating different asset portfolios under different economic conditions, we strive to obtain stable positive returns under different macroeconomic conditions.
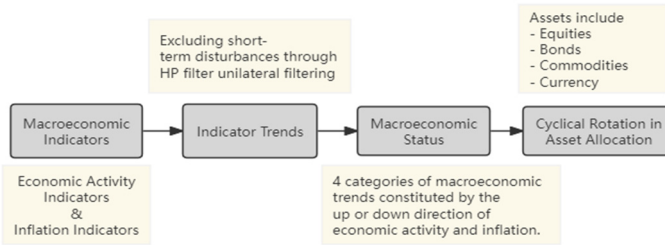

Fig. 1. Tactical Asset Allocation Strategy Flowchart for Sector Rotation

3   Data and Indicators

3.1   Macroeconomic Data

This paper extracts the monthly data from 2009 to 2019 through the Choice financial terminal. The classification and frequency of the acquired indicators are shown in Table 1. To account for the lag of the publication of the actual economic indicators, all the acquired economic indicators will be processed with a lag of 1 month in the subsequent research.

The indicators included are as follows: First, the PMI, or the Purchasing Managers' Index, is an economic indicator used to measure the level of business activity in the manufacturing and service sectors. Second, IVA (Industrial-Value-Added) is an economic indicator that measures the new value created by the productive activities of the industrial sector over a certain period of time. It reflects the difference between the value of goods and services produced during industrial production and the value of inputs (such as raw materials, semi-finished goods, energy and services).

Table 1. Types of Macroeconomic Indicators

Types	Indicators	Frequency	Lag
Economic prosperity	IVA(YOY)	Monthly	yes
	PMI	Monthly	yes

	CPI(YOY)	Monthly	yes
Inflation	PPI(YOY)	Monthly	yes
	WTI	Monthly	yes

Inflation indicators include: First of all, PPI (Product Price Index) is a macroeconomic index that measures the price changes of commodities in the production stage of a country or region, and it is also an important inflation index.[8] Secondly, CPI, or Consumer-Price-Index, is a macroeconomic index that measures changes in the price level of daily consumer goods and services of residents in a country or region. It reflects changes in the price of the basket of goods and services bought by the average household and is a key indicator of inflation. In addition, we also obtained the price of WTI, which is due to the wide application of petroleum products extracted from crude oil in the national economy, and gradually transmitted from the upstream to the downstream industries through the price transmission mechanism, resulting in the rise of the price of related finished products, thus promoting inflation and promoting the rise of the consumer price index (CPI).

3.2   Judgment of Macroeconomic Trend

In order to see the changes of each indicator more clearly, this paper uses HP filtering to visualize the changes of indicators. A single-side high-pass filter (HP filter) is a digital signal processing tool designed to allow signals above a specific cutoff frequency to pass while weakening signals below that cutoff frequency.

$y_t (t = 1,2, ... T)$ is the original sequence, which may be subject to many short-term fluctuations? The objective of this step is to decompose it into the form of Trend + Cycle and extract the trend terms therein. And the trend term sequence $g_t (t = 1,2, ... T)$ is obtained by solving such a minimization problem. If you look at the formula above, you will see that $g_t (t<Y)$ is related to the information after time t, such as g_{t+1}, g_{t+2} etc. Each trend item depends on information from t=1 to t=T, which contains a lot of future information. This is fatal for backtesting policies based on trend terms. Therefore, the one-sided HP filtering formula (1) can be obtained:

$$\widehat{T}_{t|t,\lambda} = \arg_{Tt} \min\left(\min\left(\sum_{s=1}^{t}(y_s - T_s)^2 + \lambda \sum_{s=2}^{t-1}(T_{s+1} - 2T_s + T_{s-1})^2\right)\right) \qquad (1)$$

In this paper, the method of using the HP filter processing macro indicators[9], from the time series of index to get a smooth sequence, that is, the trend part of macro indicators, and use this to judge the trend of indicators. Based on the above one-sided HP filtering formula, HP filtering of different financial data can be obtained through code. According to Ravn and Uhlig (2002), the lambda parameter is 6.25(1600/4^4) for annual data, 1600 for quarterly data, and 129600(1600*3^4) for monthly data. [10]
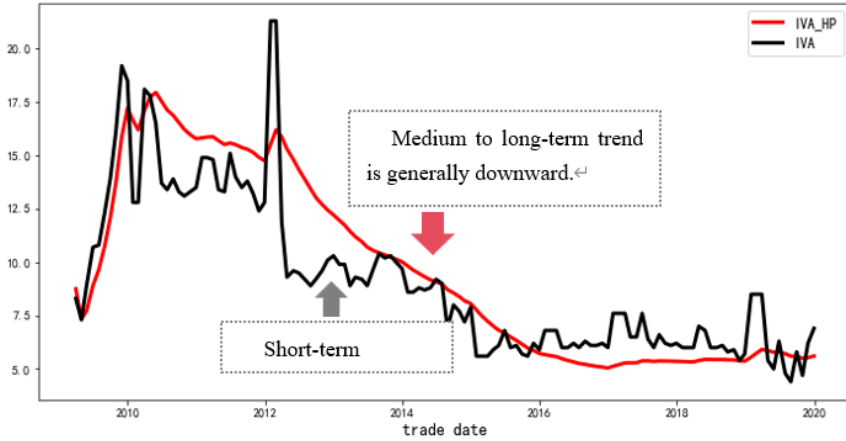
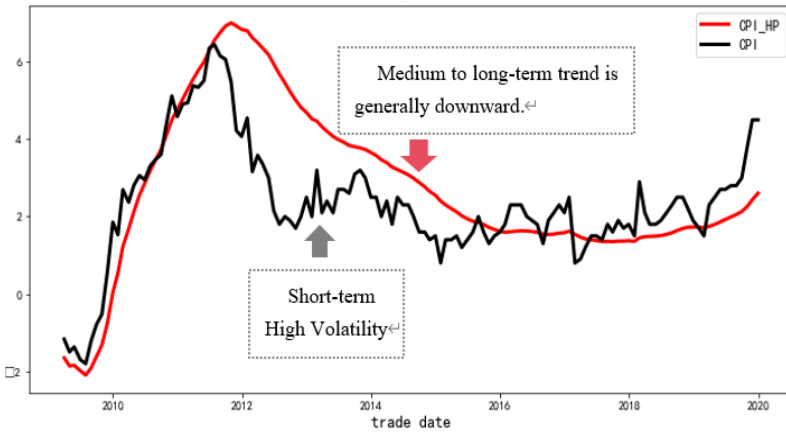**Fig. 2.** Time sequence variation diagram after IVA and HP filtering

Fig. 3. Temporal variation diagram after CPI and HP filtering

For indicators that have been processed according to the historical moving average method or HP filtering method, the current trend is determined by looking at its latest value. Specifically, if the index value of the T period is greater than the index value of the T-1 periods, it is considered that the index is in an upward trend; otherwise, it is considered that the index is in a downward trend. Taking IVA and CPI data as an example (see Figure 2-3), there may be situations at the same time where the extreme trend is opposite to the trend of change, such as the extreme trend of short-term continuous rise in early 2013, while from the perspective of medium and long term, the index is still in a downward trend of change. In this report, we will mainly study the impact of the long-term change trend (up and down) of macro data on the return on assets, and analyze the historical change of each macro data.

3.3   Asset Data

In terms of asset data, this paper selects CSI 300, CSI 500, CSI government bonds, CSI corporate bonds, gold and currency. The corresponding index information is shown in Table 2.

Table 2. Category asset information and representative indicators

Classification	Asset	Index
Equities	CSI 300 Index	000300.SH
	CSI 500 Index	009050.SH
Bonds	China Government Bond Index	H11006.CSI
	China Corporate Bond Index	H11008.CSI
Commodity	Gold	AU9999.SGE
Currency	Money Market Fund	H11025.CSI

Among them, the stock proxy index chooses the CSI 300 Index, which is an important stock index in China's A-stock market and consists of 300 stocks of listed companies with large scale and good liquidity in Shanghai Stock Exchange and Shenzhen Stock Exchange. The index is designed to reflect the overall performance of China's A-share market. The CSI 500 index reflects the overall performance of medium-sized listed companies with small scale and good growth in China's A-share market. It is also an important part of China's A-share market.

The CSI government bond index selected by the bond section can reflect the overall performance of the government bonds in China's bond market. These indexes cover Treasury bonds of different maturities, including short -, medium - and long-term Treasury bonds, providing investors with a variety of bond investment targets. The CSI Corporate Bond Index reflects the overall performance of China's corporate bond market. The indexes include corporate debt of different credit grades, including investment-grade and high-yield corporate debt. Gold products traded in the money market have high liquidity and low credit risk, in addition, the price of gold is generally not correlated with other asset prices in the money market, so it can be used as part of a diversified portfolio to help investors diversify their risk. The currency plays a vital role in the capital market. It not only acts as an intermediary in transactions, simplifying the exchange process of goods and services between buyers and sellers, but also acts as a measure of value. Currency has the function of storing value, allowing individuals and enterprises to preserve their current purchasing power for future use.

4   Portfolio Judgment in Line with Economic Trends

Different financial indicators are divided to prepare for the follow-up T-test. In order to consider the influence of time lag on asset return, we will measure the lag (the influence of the index trend of T-1 period on the asset return of t period) and the non-lag respectively, and judge the influence of each indicator HP on various assets. According to the data, we will determine the assets suitable for allocation under the changing trend of different indicators. The T-test is a statistical hypothesis test that is mainly used to

compare whether there is a significant difference between the means of two sets of data. It was published by William Gosset in 1908 under the pseudonym "Student", hence the t test is also known as the student's test. In this study, we use T test to determine whether there is a significant difference in the return of an asset when a certain macro indicator (after taking the historical average or filtering) is going up and down. If t value is large, we believe that the change trend of indicators has a significant impact on the return rate of major assets:

$$t = \frac{\overline{X}_1 - \overline{X}_2}{\sqrt{\frac{(n_1-1)S_1^2+(n_2-1)S_2^2}{n_1+n_2-2}\left(\frac{1}{n_1}+\frac{1}{n_2}\right)}} \sim t_{n1+n2-2} \tag{2}$$

In the above equation (2), $\overline{X}_1, \overline{X}_2$ respectively represent the average monthly return rate of a certain category of assets under the upward and downward trend of macro indicators. S_1, S_2 represents the standard deviation of monthly return of a major asset class under the circumstances of upward and downward trend of macro indicators; n_1, n_2 respectively, represents the number of months in which the macro indicator is on the up or down. From the statistical results, the trend of index changes in T-month (index value at the end of T-month - index value at the end of January) tends to have a more significant impact on asset returns in T-month. However, in actual investment decisions, decisions can only be made after the index is released. Therefore, here we mainly study the impact of the latest trend of indicator changes in t month on the return rate of various assets in t+ January. After dividing the data according to the upward and downward intervals of different indicators, the average monthly return rates were calculated respectively, and conducted t test for the grouped return rate series. As demonstrated from Table 3, the performance of equity products in the downward trend of CPI, PPI and other inflation indicators is significantly better than that in the upward trend of PMI, IVA and other prosperity indicators is higher than that in the downward trend. As can be seen from Table 4, the performance of debt products in the downward trend of CPI, PPI and other inflation indicators is significantly better than that in the upward trend, and the average income category is higher than that in the downward trend of PMI, IVA and other prosperity indicators. As shown in Table 5, the performance of gold in the upward trend of CPI and PPI inflation indicators is significantly better than that in the downward trend, while the performance of monetary products is the opposite, that is, the performance is better in the downward trend. However, there are great differences in the performance of several indexes of the two indexes in the backtest period, and no obvious consistent rule is found.

Table 3. The average rate of return of equity products under the trend of economic indicators and the T-test results

Indicators of Economic Trends	CSI 300 Index			CSI 500 Index		
	Upward	Downward	T-test	Upward	Downward	T-test
WTI	0.0081	0.0084	-0.0221	0.0088	0.0104	-0.1051
PMI	0.0153	0.0035	0.8061	0.0160	0.0052	0.7835

IVA	0.0156	0.0041	0.6979	0.0176	0.0048	0.7631
CPI	-0.0035	0.0166	-1.4172	-0.0015	0.0168	-1.2732
PPI	-0.0005	0.0126	-0.9807	-0.0016	0.0153	-1.2270

Table 4. The average yield of bond products under the changing trend of economic indicators and T-test results

Indicators of Economic Trends	China Government Bond Index			China Corporate Bond Index		
	Upward	Downward	T-test	Upward	Downward	T-test
WTI	0.0035	0.0052	-1.2673	0.0025	0.0039	-0.9831
PMI	0.0016	0.0062	-3.5256	0.0006	0.0049	-2.9968
IVA	0.0028	0.0048	-1.3011	0.0024	0.0035	-0.6490
CPI	0.0032	0.0054	-1.6339	0.0028	0.0036	-0.5790
PPI	0.0029	0.0054	-1.7511	0.0020	0.0041	-1.4480

Table 5. The average rate of return of gold and currency under the changing trend of economic indicators and T-test results

Indicators of Economic Trends	Gold			Currency		
	Upward	Downward	T-test	Upward	Downward	T-test
WTI	0.0097	0.0001	1.1845	0.0026	0.0030	-1.4998
PMI	-0.0012	0.0092	-1.3514	0.0028	0.0028	0.0697
IVA	0.0177	0.0009	1.7983	0.0026	0.0029	-0.9943
CPI	0.0152	-0.0042	2.4289	0.0023	0.0033	-4.4364
PPI	0.0110	0.0005	1.2760	0.0026	0.0030	-1.5719

Since the straightforward data is not intuitive enough to reflect the economic trend, this study constructs a comprehensive index of "prosperity" and "inflation" according to the classification of indicators using equal weight calculation, and determine the return performance of major assets under different trends to conduct another t test respectively, and carry out a formal rotation conversion strategy construction in accordance with the economic trend.

5   Rotational Strategy Construction

Given the inherent limitations of raw data in providing a lucid portrayal of economic trends, this study adopts an equal weight calculation according to the classification of indicators to build a comprehensive index of "prosperity" and "inflation", and judge the return performance of major assets under different trends to conduct another t test. As shown in Table 6, stocks perform better in the stage of rising prosperity and rising inflation; As shown in Table 7, bonds perform better in the stage of economic downturn and inflation downturn; As shown in Table 8, gold performs better when sentiment is up and inflation is up, while currencies do the opposite and perform better when both are down.

Table 6. Average rate of return of equity products under different economic trends and T-test results of group rate of return

Economic Trends	CSI 300 Index			CSI 500 Index		
	Upward	Downward	T-test	Upward	Downward	T-test
Prosperity	0.0244	0.0016	1.4575	0.0194	0.0055	0.8610
Inflation	-0.0049	0.0185	-1.6286	-0.0046	0.0205	-1.7934

Table 7. Average yield of bond products under different economic trends and T-test results of group yield

Economic Trends	China Government Bond Index			China Corporate Bond Index		
	Upward	Downward	T-test	Upward	Downward	T-test
Prosperity	0.0023	0.0052	-1.9733	0.0013	0.0040	-1.6653
Inflation	0.0029	0.0054	-1.7806	0.0020	0.0041	-1.4521

Table 8. Average rate of return of gold and currency products under different economic trends and T-test results of group rate of return

Economic Trends	Gold			Currency		
	Upward	Downward	T-test	Upward	Downward	T-test
Prosperity	0.0051	0.0051	0.7176	0.0027	0.0028	-0.4978
Inflation	0.0111	-0.0001	1.3267	0.0025	0.0030	-1.8071

Therefore, the T-test results of different categories of assets under different macroeconomic conditions were analyzed, and four different economic interval dimensions were divided, as shown in Table 9. It is suitable to invest in stocks when the boom is going up, bonds and gold when it is going down, gold when inflation is going up, and stocks, bonds and currencies when inflation is going down.

Table 9. Broad categories of products suitable for investment under different economic trends

Economic Trends	Prosperity	Inflation
Upward	W1: Equities	W3: Gold
Downward	W2: Bonds, Gold	W4: Equities, Bonds, Currency

As shown in Table 9, considering the profitability and risk of different assets, we subdivide the investment weights of secondary assets in 4 windows, and get the general distribution in Table 10:

Table 10. Investment weight Settings for each product under different business cycle dimensions

Asset	Equities		Bonds		Commodity	Currency
	000300.SH	009050.SH	H11006.CSI	H11008.CSI	AU9999.SGE	H11025.CSI
W1	50%	50%				
W2			40%	40%	20%	

W3					100%	
W4	30%	30%	15%	15%		10%

After obtaining the performance data of the assets in different stages of the macroeconomic cycle, the financial assets portfolio is constructed based on the above data. When calculating the portfolio allocation weight of assets, we adopt the following methods: In the benchmark weight, adjust the weight according to the trend of macro indicators; To quantify the magnitude of changes in the economy and inflation, we introduce a parameter 'K', which represents a proportionality factor. This factor, 'K', is the ratio of the amplitude of the trend change between economic prosperity and inflation, the formula (3) shows the expression:

$$K = |\frac{P_t - P_{t-1}}{I_t - I_{t-1}}|$$

(3)

To balance the asset portfolio corresponding to different economic conditions, K is set in a range of [0.25,0.75]. For different economic trends, the weight of asset allocation is set as follows:

1. If the current economy is rising and inflation is rising, the weight of t+1 is W=K*W1+(1-K) *W3;
2. If the current economy is rising and inflation is falling, the allocation weight of t+1 is W=K*W1+(1-K) *W4;
3. If the current economy is in the stage of economic downturn and inflation is rising, the allocation weight of t+1 is W=K*W2+(1-K) *W3;
4. If the current economic downturn and inflation decline stage, the allocation weight of t+1 period is W=K*W2+(1-K) *W4;

Through simulated trading, the monthly return rate of the strategy is obtained, and the final result is produced in the form of a chart to compare with the net value curve of only investing a single asset (stock, bond or Gold) and holding. As shown in Figure 4, the net value performance of the strategy is significantly higher than that of single asset in almost all the time periods of backtesting.
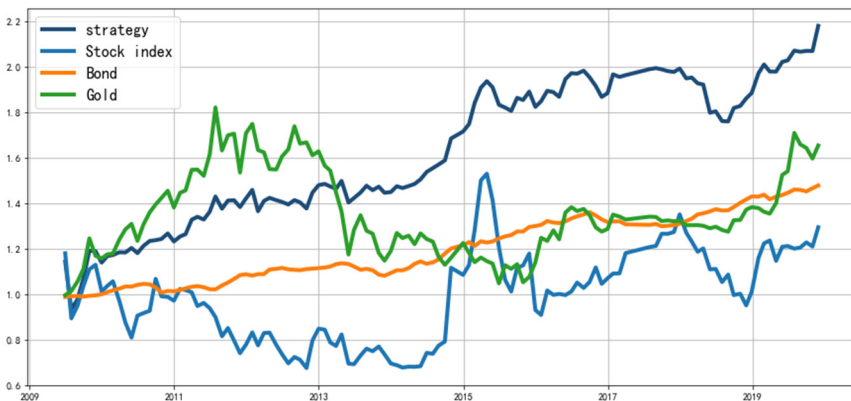

Fig. 4. Strategy net worth performance and comparison

As revealed in Figure 4, after 2015-2016, the net asset value of major asset portfolios has a higher return rate and a strong competitive advantage compared with the broken line represented by CSI 300 net worth, national debt net worth and gold net worth. These portfolios not only delivered higher rates of return, but they also exhibited a significant competitive edge in the investment landscape. In a further attempt to measure the risk-adjusted performance, the volatility, Maximum Drawdown (MDD) and win rate is calculated and obtained the perspective table as shown in Table 11. providing a comprehensive view of the performance metrics.

Table 11. Strategy performance versus a single product performance

	Cumulative Return	Annualized Return	Volatility	Annualized Volatility	Maximum Drawdown	Win Rate
Strategy	117.83	7.96	0.03	0.12	18.33	61.48
Stock_Only	29.37	2.57	0.08	0.27	42.71	54.10
Bond_Only	47.73	3.91	0.01	0.03	4.82	68.85
Gold_Only	65.29	5.07	0.05	0.16	42.44	51.64

It becomes evident that in terms of annualized returns the major asset portfolio allocation outperforms other individual assets, reaching an annualized rate of return of 7.96%. In addition, the MDD of major asset portfolios is low, only 18.33%, and the volatility is low, so it can avoid the pullback risk in the economic downturn, and its win rate is maintained at a high level. Consequently, the strategy maintains a high success rate in the long term.

6   Conclusion

The purpose of this paper is to analyze the asset allocation strategies under different macroeconomic conditions from the impact of macro factors on asset returns. First, for a single macro indicator, the current change trend of the macro indicator is judged; Then, the influence of the change trend of a single macro indicator on the return on assets in the history is analyzed, indicators with relatively significant influence are selected, and similar indicators are synthesized to divide different macroeconomic states according to their trends. Finally, the performance of various types of assets under different macroeconomic conditions is analyzed, and the asset allocation strategy is constructed based on it. In different macroeconomic states, we choose different asset portfolios for allocation and assign different weights according to the performance of each asset. According to the results of the backtest, according to the division of macroeconomic states in this paper, the portfolio has obtained relatively stable positive returns under different macroeconomic states, with an annualized return rate of 7.96%. At the same time, risks have been avoided, and the dual effects of risk control and return improvement for investors have been realized.

The research of asset allocation plays a critical role in field of investment management, as it involves how to make reasonable allocation among different asset classes to

achieve the best balance between risk and return. Through in-depth analysis of the expected returns, risk characteristics and correlations of various assets, investors can construct a diversified portfolio, effectively diversify non-systemic risks, and seek the optimal risk-adjusted returns on this basis. In addition, the dynamic adjustment strategy of major asset allocation is also the focus of research, which includes sensitive capture of macroeconomic factors such as economic cycle, market trends, policy changes, and consideration of market sentiment and behavioral financial factors. By monitoring changes in the market environment in real time and adjusting asset allocation accordingly, investors can better adapt to market fluctuations, protect capital from significant losses, and seize investment opportunities under favorable conditions. In conclusion, the research on asset allocation is not only helpful to improve the risk management ability and return potential of investment portfolio, but also of great significance to promote the scientific and refined investment decision. Asset allocation research equips investors with a scientific framework for decision-making, enabling them to make more rational and efficient investment decisions in the complex and changeable market environment. By regularly reviewing and adjusting asset allocation, investors can better cope with market uncertainties and realize long-term asset appreciation. At the same time, the study of asset portfolio allocation has far-reaching influence and important theoretical value in the field of economics. This study not only provides the methodology to optimize the balance between risk and return for investors, but also plays an irreplaceable role in perfecting modern portfolio theory, developing asset pricing model and deepening the analysis of financial market microstructure. Through systematic analysis of different asset classes, researchers can reveal the interactions between assets and their impact on market fluctuations, providing theoretical guidance for asset management practice.

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