A Study on Optimal Scale of China Gold Reserves

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Abstract

According to the data of 1992-2010 years, paper use optimal portfolio model to determine the weight of the great benefits law foreign exchange reserves, so as to obtain the optimal scale of gold reserves. Forecast the optimal gold reserve capacity in the next 20 years. The conclusion is: 2020, China's gold optimal reserves should be 5787 tons - 6750 tons. 2030 should be 8995 tons - 10532 tons. Combination of the above quantitative measure and the forecast results, the thesis put some forward countermeasures and suggestions include increasing the gold reserves.

Key words: International reserve assets; Gold reserves; Foreign exchange reserves; Optimal scale

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INTRODUCTION

Post-crisis era, the gold in the world still has an important role in the protection of national economic security. But for a long time, China's gold reserves have been below normal. In 2011, China's foreign exchange reserves reached \$3.2 trillion, while the gold reserves only 1054 tons (America 8033 tons). Significantly lower proportion of China's foreign exchange reserves, gold reserves account for only 1.37%, much lower than developed countries (typically 40% to 60%, the Euro-zone countries for about 60%), which is not match with our country the world's first production hardware power and the identity of the two largest gold consuming country, as well as rapid economic development and the rise of the national position. From the country's economic security and strategic height, measure the optimal size of the gold reserves, a modest increase in gold reserves, has been consider as one of the important issue of the theory of community and national high-level decision makers (Zhang & Fen, 2011).

1. THE LITERATURE REVIEW

Heller (1966) suggested that, the smallest cost of international reserves of the international balance of payments deficit expenditure switching and expenditure reduction and external borrowing of financing policy is the moderate international reserve level of demand. Barlow (Balogh, 1960) definite the appropriate reserves for the pursuit of economic growth: established under the conditions of the existing resource stock and the level of reserves, the reserves growth is modest if reserves growth can be promoted to maximize the economic growth rate. From a developing country perspective, the agger Wall (Agaiwal, 1971) moderate international reserves by the explanation is this: The developing countries established a fixed exchange rate, the modest reserve holdings could offset international balance of payments deficit and the occurrence of unanticipated costs and benefits of the country in the planning period...

China's study of international reserve assets of an appropriate scale, mainly from foreign exchange angle analysis. Among them, Wu Jian (1998), Qiu Bo and Zhu Yihong (1999) use the interval analysis method to measure the China's foreign exchange reserves; Mr Wong (2002), Xu Chengming (2001), Gao Feng (2003) use the value analysis to judge the moderation of China's foreign exchange reserves. Jiang Boke (1984) evaluates the demand for international reserves theory and methods, and recommendations for China's foreign exchange reserves management. Chen Rong, Xie Ping (2007) holds China has excess foreign exchange reserves, but a country's foreign exchange reserves are difficult to determine. Ba Shusong, Zhu Yuan qian (2007) through the establishment of the additive model empirical the determinants of foreign exchange reserves. Li Chao, Zhou Chengjun (2008) analysis relationship between China's excess liquidity and over cumulative foreign exchange reserves difference and its mechanism of action. Qu Qiang (2009) In the case of China's current existence of excess foreign exchange reserves, changes in foreign reserves has obvious effects of inflation.

With the frequent occurrence of financial crisis, domestic and foreign scholars have made new progress of the country's international reserve assets. Based on multilevel substitution effect on China, Zhou Guangyou, Luo Sumei (2011) measure the optimal foreign exchange reserves, pointing out that China's foreign exchange reserves clearly excessive, but the government is not necessary to be "active" intervention, it is imperative is to consider how to give full play to the special role of the foreign exchange reserves, and its preservation and appreciation. Hong Jiaxing (2008), from the perspective of the foreign trade shocks and capital flows, respectively show the empirical impact of two results that in 2006 China's actual foreign exchange reserves is clearly excessive. Wu Jian (1998), Guo Taifeng (2006), Zhang Shuguang and Zhang Bin (2007) from the qualitative point of view to understand China's foreign exchange reserves analysis.

At home and abroad, for the appropriate scale of the country's international reserve assets are generally ignored the importance of the gold reserves of foreign exchange reserve. With the weak dollar and increased global economic risks, the governments tend to holdings of gold. As a country's international reserve assets was mainly constituted by the foreign exchange reserves and gold reserves, therefore, study the country's international reserve assets of the moderate size of the gold reserves is greatly necessary.

2. CHINA'S NATIONAL GOLD RESERVES ESTIMATES AND FORECASTS OF THE OPTIMAL SIZE

2.1 Date

The article assumes that international reserve assets consisted of gold reserves and foreign exchange reserves. Selected from 1992 to 2010 years of GDP (billion dollars), the financial expenditure (100 million U.S. dollars), total external debt (100 million U.S. dollars), risk-free rate of return data calculated the optimal size of China's

international reserve assets. According to the foreign exchange rate of return, the gold rate of return to obtain the optimal weight selection, and with the date from 1992 to 2010 years the price of gold and the exchange rates, paper convert unit to tons on the basis of the obtained gold best reserves. In addition, we also collected samples of China's foreign exchange reserves during the corresponding period (100 million U.S. dollars), and make a comparative analysis of the data of gold reserves (million ounces) and the corresponding optimal reserve scale. All data are from "China Statistical Yearbook", "International Statistical Yearbook", "China Statistical Abstract", "Gold Yearbook" (1993-2011). Use one-year RMB deposit base interest rate to replace risk-free rate of return. To the rate of return for foreign exchange reserves, Heller (1966) believe that holders of foreign exchange reserves would lead to the loss of opportunity cost (which is equal to the difference between the social capital rates of return and the foreign exchange reserve capital gains rate). As it is difficult to estimates the social capital rate of return, the measure of opportunity cost of the foreign exchange reserves is not set consistent standards, in real applications usually use some variables instead. According to the Swedish economist Agnes lol (1971) the "opportunity cost" - the opportunity cost of holding foreign currency is the domestic investment rate of return, select the risk-free rate of return as a replacement

2.2 The Optimal Reserve Asset Size Estimates

2.2.1 Two Models (Jeanne & Ranciere, 2006)

A. The Model Assumes

Suppose that there exists a economy representation of consumers and government, exist two periods, and the produce one product, the product consumed in the domestic and foreign. At the same time, it is assumed in the second period due to the economic, political and other reasons caused by capital inflows suddenly stop, and may lead to economics in crisis, and assume that the probability of the economy crisis of π . In addition, assume that the first period of the economy, the level of output is Y, when the economy crisis, the domestic economy to economic shocks, leading to output αY ($0 < \alpha < 1$), when crisis not happen, the output Y equals to the first period.

$$Y_2 = \begin{cases} \alpha Y & \text{crisis happen} \\ Y & \text{crisis did not happen} \end{cases}$$

On the international market, assume the government can freely borrow short-term debt, the country's international reserve assets in the first period, so preventive measures can ensure a smooth consumer spending. When the economy crisis, the economy output decline, so the government is unwilling to repay its external debt borrowed in the international market, government breach the international market for such violations and don't bear the punishment; If crisis not happen, the government will be happy to repay its debts to foreigners. Assumed in the first period, the government borrowed foreign debt number of B, reserve assets (foreign exchange, gold) R also the level of government purchases G (for the constants determined).

Based on the above assumptions, the constraint function of government spending is as follows:

Phase I: $C_1 = Y - R - G + B$ Phase II:

$$C_2 = \begin{cases} C_2' = \alpha Y + (1+r_f)R - G & \text{crisis happen} \\ C_2^0 = Y - (1+r)B + (1+r_f)R - G & \text{crisis did not happen} \end{cases}$$

Which, r_f for the reserve assets to invest in risk-free asset rate of return, r for the short-term debt contract interest rate.

B. To Maximize the Utility of the Objective Function

As rational consumers, the government will be allocated more rationally in the first and second period, to maximize the country's utility of international reserve assets. Assuming the probability of crisis π , the intertemporal discount factor ρ , the representative consumer utility function form $U(\cdot)$, which, $U'(\cdot) \ge 0$ $U''(\cdot) < 0$. The objective function optimization can be expressed as:

$$MaxU(C_1) + \frac{1}{1+\rho} [\pi U(C_2') + (1-\pi)U(C_2^0)]$$
(1)

Put constraints into the function $U(\cdot)$, and derivate formula (1) respectively to short-term debt B and reserve assets R, then make the first derivative equal to zero, and further projections:

Results of the first derivate to Short-term debt B:

$$U'(C_1) = \frac{1+r}{1+\rho} (1-\pi) U'(C_2^0)$$
(2)

Results of the first derivate to reserve assets:

$$U'(C_1) = \frac{1+r_f}{1+\rho} [\pi U(C_2') + (1-\pi)U'(C_2^0)]$$
(3)

According to the principle of no arbitrage, to the creditor countries, the opportunity cost of lending foreign debt is equal to the expected return. Among them, the expected return consists of two parts: when there is no crisis in the debtor countries, the creditor countries proceeds (1+r) B, and when the debtor countries in crisis, due to lack the necessary punitive measures to breach of debtor countries, the creditor countries proceeds 0. Therefore, the expected return of creditors $(1-\pi)(1+r) B$, while the opportunity cost of creditor countries $(1+r_f) B$. Therefore, in accordance with the principle of maximizing the return, can be $(1-\pi)(1+r) B = (1+r_f) B$ namely:

$$1 + r = \frac{1 + r_f}{1 - \pi}$$
(4)

Formula (2) and (3) joint, and assume the utility function is CRRA form, so:

$$C_{1} = \left(\frac{1+r_{f}}{1+\rho}\right)^{-\frac{1}{\sigma}} C_{2}^{0} \quad C_{1} = \left(\frac{1+r_{f}}{1+\rho}\right)^{-\frac{1}{\sigma}} C_{2}^{0} \tag{5}$$

According to the Theory of Interest $\rho = \frac{r_{f}}{1 + r_{f}}$,

assumes
$$A = \left(\frac{1+r_f}{1+\rho}\right)^{-\frac{1}{\sigma}}$$
, so $A = \left[\frac{(1+r_f)^2}{(1+2r_f)}\right]^{-\frac{1}{\sigma}}$,

simplified as:

$$R = \frac{(1-\pi) + A(1+r_f)}{(1-\pi)[1+A(1+r_f)]}B + \frac{1-A}{1+A(1+r_f)}(Y-G)$$
(6)

Formula (6) is an appropriate scale measure model of the national level to measure international reserve assets.

2.2.2 Optimal Size Estimates of International Reserve Assets

This paper collects macroeconomic data (1992-2010). According to the real business cycle literature norm to select $\sigma = 2$, while the probability of our country occurred capital flows is a difficult parameters to determine, Jeanne and Romain (2006) use Probit model to estimate in 34 middle-income countries, select the economic crisis probability of $\pi = 0.1$. For robustness considerations, $\pi = 0.1$, 0.2, 0.3 were respectively selected for the three cases for discussion based on the interest theory. After setting all the parameters, in accordance with the formula (6), this article calculated the optimal reserve asset size of China's international reserve asset under the different capital flows impact (probability) (billion), as shown in Table 1.

Table1Chinese Optimal Size of International Reserve Asset(1992-2010) Unit: (Billion)

Year	$\pi = 0.1$	$\pi = 0.2$	$\pi = 0.3$
1992	665.0	715.8	780.9
1993	774.3	836.4	916.2
1994	880.6	949.5	1038.2
1995	994.4	1073.6	1175.5
1996	1096.4	1181.9	1291.7
1997	1278.5	1373.1	1494.8
1998	1450.8	1555.5	1690.3
1999	1554.3	1661.5	1799.3
2000	1485.4	1588.3	1720.6
2001	1738.2	1858.3	2012.7
2002	1753.7	1874.4	2029.6
2003	1981.6	2118.0	2293.4
2004	2329.6	2491.0	2698.5
2005	3033.8	3243.1	3512.3
2006	3445.2	3684.7	3992.6
2007	3881.8	4159.0	4515.4
2008	3859.2	4136.3	4492.6
2009	4247.5	4552.0	4943.4
2010	5519.1	5907.6	6407.0

Data Source: Based on result of the proceeds of two model calculations.

It can be seen, along with China's economic development, international reserve assets has accelerated growth, and with the assumed increasing of risk, the international reserve assets should be clearly has an increasing trend. With the world economic integration and increasing the probability of economic crisis occurs, we can see: a country requires a much larger international reserve asset. This is a necessary condition to withstand the economic crisis and the protection of China's stable economic development. Also, with the probability of the improvement of the economic crisis, it can get less short-term borrowing, because the creditor countries for risk-averse considerations will limit the economies lending, in order to resist the uncertainty of the risks, the state level of reserve asset size should be greater.

2.3 Optimal Size of the Gold Reserves Estimates

2.3.1 Income Maximization Model

This model is under the given the conditions of risk, obtaining the maximum yield of the portfolio, which is the effective boundary curve. Set X_i , X_j as the proportion of assets in the reserve portfolio, R_i , R_j , i and j yield of the asset, σ_{ij} for the reserve assets of i and j yield covariance. Income maximization model are as follows:

Average yield of the portfolio: $\sum_{i=1}^{N} X_i R_i = R_p$

The portfolio variance (risk level):

$$-\sigma_p^2 = -\sum_{i=1}^N \sum_{j=1}^N X_i X_j \sigma_{ij}$$

Constraints: $\sum_{i=1}^N X_i = 1$

In the above solution process of equations, μ is used to represent the government's risk aversion coefficient. In order to solve this equation, introduce the coefficient of risk aversion and Lagrangian operator λ , established the Lagrangian function:

$$L = \mu(\sum_{i=1}^{N} X_i R_i) - \sum_{i=1}^{N} \sum_{j=1}^{N} X_i X_j \sigma_{ij} + \lambda(1 - \sum_{i=1}^{N} X_i)$$
(7)

Request the partial differential of the Lagrangian function to the weights of reserve assets and the introduction of the Lagrange operator, and make it equal to zero, you can get the maximum weights of the various assets of the national reserve portfolio income level. In this paper, the reserve assets include gold and foreign exchange, X_1 the gold share in the assets, R_1 the yield of gold, X_2 foreign currency share of assets, R_2 the foreign exchange rate of return (instead of risk-free rate of return), then the calculation results are expressed as:

$$X_{1} = \frac{u(R_{1} - R_{2}) + 2\sigma_{2}^{2} - 2\sigma_{12}}{2\sigma_{1}^{2} + 2\sigma_{2}^{2} - 4\sigma_{12}}$$
(8)

$$X_{2} = \frac{u(R_{2} - R_{1}) + 2\sigma_{1}^{2} - 2\sigma_{12}}{2\sigma_{1}^{2} + 2\sigma_{2}^{2} - 4\sigma_{12}}$$
(9)

 μ coefficient of risk aversion, when μ is small, investors are risk preferences; when μ is large, investors are risk averse, less willing to bear the risk. As an investor, Government, with a powerful country as a support, belong to the risk preferences, μ should be minimal, but can

not completely ignore the risk. On the coefficient of risk aversion μ , taking into account the huge losses caused by the financial crisis on a country's economy and farreaching influence, government policy-makers tend to be risk averse. Also refer to the problem of real-cycle theory, the general state can set the risk aversion coefficient of 0.02. Since the 1990s, with the deepening of reform and opening up, China increasingly close with the world economy, sustained rapid economic growth. But financial system, especially the banking system is not perfect, with poor ability to resist risks. If a sudden appearance of a major crisis in capital finance, the healthy development of China's economy will withstand greater the experience of other countries. Therefore, we set the coefficient of risk aversion $\mu = 0.025$. On the basis of Table 1, according to the weight formula (8), (9), respectively get the optimal weight of gold reserves and foreign exchange reserves, the results shown in Table 2.

Table 2	
The Optimal Weight of China's Gold Reserves an	nd
Foreign Exchange Reserves (1992-2010)	

Years	Gold yield	Risk-free benefit rate	Gold weights	Exchange weights
1992	-0.051	0.076	0.040	0.960
1993	0.046	0.101	0.079	0.921
1994	0.067	0.101	0.091	0.909
1995	0.000	0.101	0.054	0.946
1996	0.009	0.083	0.069	0.931
1997	-0.146	0.057	-0.002	1.002
1998	-0.111	0.046	0.023	0.977
1999	-0.052	0.023	0.069	0.931
2000	0.000	0.023	0.097	0.903
2001	0.014	0.023	0.104	0.896
2002	0.256	0.020	0.238	0.762
2003	0.202	0.020	0.208	0.792
2004	0.044	0.023	0.121	0.879
2005	0.178	0.023	0.194	0.806
2006	0.232	0.025	0.222	0.778
2007	0.319	0.035	0.264	0.736
2008	0.043	0.031	0.116	0.884
2009	0.250	0.031	0.229	0.771
2010	0.292	0.026	0.254	0.746

Data sources: proceeds in accordance with the income maximization model.

As can be seen, the optimal proportion of the gold share of reserve assets was less than 0.1, and even negative in China's national international reserve assets before 2000. The reason is that almost every country of the world was very favorable for the foreign exchange of dollars, pounds, etc., so the exchange has been on the rise, in order that Annual rate of return has been lower, and even negative. Therefore, governments around the world almost invested international assets in foreign exchange. After 2000, the dollar and the euro has been depreciating with declining in the speed of economic development in United States and European Union, which result in shrinking of a large number of the world's reserve assets, whereas the price of gold has been rising, and the annual rate of return was up to almost more 20%. Gold is a rare metal, of the real value and can not be affected by the speed of the economic development, meanwhile, gold is able to play a pivotal role in resisting to the economic crisis. Therefore, gold began to receive the favor of countries in the world, started to increase gold reserves and reduce foreign exchange reserves. With the further development of economy and the degree of integration of the world to strengthen, the economic, political, cultural and other factors will be affected by more factors, more complicated and subject to other national economic crisis at any time. Therefore, countries have noted that they should do better the country's international reserve assets and gold is real Currency and the best means to withstand the economic crisis. Gold is more and more precious and plays an increasingly important role along with economic development, so, to increase gold reserves is inevitable. According to gold optimal weight in 2000 later as well as economic development trends, the paper argues that the gold optimal weight is about 0.25, the optimal weight of foreign exchange of about 0.75, the optimal weight is the [0.25,0.75].

Combined Table 1 and Table 2, based on the optimal weight above, Calculating the gold optimal reserve size (t) on basis of different risk levels, as Table 3.

Table 3			
	D AGU	<i><u><u></u></u></i> <i><u><u></u></u></i> 	
The Optimal	Reserve of China	a Gold	(1992 - 2010)

The optimal Reserve of China Gold (1772-2010)				
Years	$\pi = 0.1(t)$	$\pi = 0.2(t)$	$\pi = 0.3(t)$	
1992	352.3	379.1	413.7	
1993	559.1	604.0	661.6	
1994	714.2	770.1	842.0	
1995	473.4	511.1	559.6	
1996	658.5	709.8	775.8	
1997	-19.2	-20.7	-22.5	
1998	345.4	370.3	402.4	
1999	1173.1	1254.0	1358.0	
2000	1556.3	1664.1	1802.7	
2001	2095.2	2239.9	2426.0	
2002	3916.9	4186.6	4533.3	
2003	3536.4	3779.9	4092.9	
2004	2118.2	2265.0	2453.6	
2005	4105.7	4389.0	4753.3	
2006	3935.0	4208.5	4560.2	
2007	4573.5	4900.1	5320.0	
2008	1582.8	1696.5	1842.6	
2009	3079.6	3300.3	3584.1	
2010	3609.8	3863.9	4190.6	

Data source: Calculating in accordance with Table 2.

2.3 Prediction Analysis of the Optimal Scale of China's Gold Reserve

2.3.1 Grey Theory Prediction Model

GM (1, 1) model is one of the predictive models of the gray theory, it regards an uncertainty system as the study, extracts valuable information and correctly describe and

effectively monitor the system behavior and he evolution discipline in order to predict the future development of the things by the "part" of the known information about production and development. The model is a time series forecasting model, which can model and predict according to the small amount of information, thus it has been widely used.

To the accuracy of the model, Posteriori test indicators have posteriori differential ratio c and P small error probability, the smaller the value c is, the better. The bigger the value P is, the better. In accordance with the above two indicators, we can find out the accuracy test level, as Table 4.

Table 4 The Accuracy Test Level

Prediction accuracy level	Р	с
Good	>0.95	< 0.35
Qualified	> 0.8	< 0.50
Reluctantly	> 0.7	< 0.45
Failure	≤0.7	≥0.65

2.3.2 Prediction of the Gold Optimal Scale

It is priority to increase our gold reserves. Therefore, from the perspective of the strategic reserves of China's gold and further according to gray forecasting model GM (1, 1)based on Table3, we can predict the optimal gold reserve in the next 20 years. Results are shown in Table 5.

Table 5	
The Predictive Value of China	a Gold Optimal Reserves
in the Future (2012-2030)	

Years	$\pi = 0.1(t)$	$\pi = 0.2(t)$	$\pi = 0.3(t)$
2012	4066.7	4355.8	4729.1
2013	4250.1	4552.9	4944.2
2014	4441.7	4758.9	5169.1
2015	4642.0	4974.3	5404.2
2016	4851.3	5199.4	5650.0
2017	5070.0	5434.8	5907.0
2018	5298.6	5680.8	6175.7
2019	5537.5	5937.9	6456.6
2022	6320.9	6781.2	7378.4
2023	6605.9	7088.1	7714.0
2024	6903.7	7408.1	8064.9
2025	7215.0	7744.2	8431.8
2026	7540.4	8094.7	8815.3
2027	7880.3	8461.1	9216.3
2028	8235.7	8844.0	9635.5
2029	8607.0	9244.3	10073.8
2030	8995.1	9662.7	10532.0

From Table 5, we can find that the optimal reserve of our country gold presents the basic linear trend of steady growth in the next 20 years, and with increasing the probability of the economic crisis, the optimal size of the gold reserves also needs a corresponding increase. Specifically, the paper argues that a reasonable range of the optimal reserves of gold in China is [5787.2, 6750.3] in 2020, the reasonable range is [8995.1, 10532.0] in 2030. In fact, the first half of 2012, China's gold reserves only has 1054 tons, showing that to achieve a reasonable structure need to increase to about 4 times in 2020; to achieve the 2030 reasonable structure, we need to increase about 8 times. Visibly, the task of China's gold reserves has long way to go and also make much greater effort.

For the evaluation of the predictive model, the paper tests the prediction accuracy rate by multivariate gray prediction model, the results show that the effect of the above predictive value is reliable and scientific, as shown in Table 6.

Table 6 The Test of Predicting Accuracy Lever of Multivariable Gray Forecasting Model

Project	S2	S1	C=S2/S1	Р
The optimal gold reserves(π =0.1)	39.20	1170.20	0.034 < 0.35	1
The optimal gold reserves(π =0.2)	39.16	1252.22	$0.031 \! < \! 0.35$	1
The optimal gold reserves($\pi = 0.3$)	39.12	1357.71	0.029<0.35	1
Comprehensive evaluation	C1=0.03		1 the effect of pro good	ediction

It shows that the accuracy of the model rank test is better, predicted results has a certain degree of accuracy and a strong convincing in the forecast of China's gold the optimal reserves in the next 20 years.

3. COUNTERMEASURES AND SUGGESTIONS

Combination of the above empirical analysis and forecast results, this paper considers our country should increase our gold reserves according to the following aspects.

3.1 Appropriately Increase the Proportion of Our Gold Reserves Accounting Foreign Exchange Reserves

Given China's huge foreign exchange reserves and single structure, in order not to affect the international gold market and avoid the sharp fluctuations of the international price of gold, it is recommended to increase China's official gold reserves at the right time and right price. The international practice is: a reasonable proportion is 10% -15%. This is the need to optimize reserve assets. The majority of national experts also believe that regardless of how to grow China's foreign exchange reserves, gold reserves account for about 10 percent of the country's foreign exchange reserves.

3.2 Formulate Preferential Policies, "The Gold in China", "The Possession of Wealth to the Country"

In recent years, China's per capita gold consumption and investment demand will be rapid growth, we can take advantage of the favorable opportunity of China's huge foreign exchange reserves, gradually expand the gold imports and increase the physical launch of the gold market. China should expand the current gold investment channels and gradually release the gold futures markets so that more market players participate in the gold investment and more private capital enter this field, in order to increase the gold reserves of the private sector. To an extent, this can reduce national holding costs of gold reserves and decrease the loss of the national gold reserves when gold prices lowing.

3.3 Abolish of the Gold Jewelry Consumption Tax and Develop the Old Gold-Recovery Policy

People buy gold, actually is the process of "save the gold to people", due to the presence of gold as a currency attribute, gold jewelry should not be priced too high. Although the 5% consumption tax sales are levied in sales cycle, actually passed on to consumers, not only higher prices, also affected the enthusiasm of the gold business sales. Therefore, the need for further development of the gold market in China, increasing gold investment products, expanding the gold leasing, development of gold swaps, gold futures and gold derivatives market, building the structures of gold free trading platform, setting the establishment of the gold market maker system to ensure that private gold investment channels unimpeded to achieve the purpose of "save the gold to people".

3.4 To Promote Gold Investment Funds

Although the yield of stocks funds is relatively high, the risk is relatively high, while the bond fund income, although stable, inflation had to be considered, so the real rate of return is even lower. Gold Fund Investment Committee composed of experts, after full analysis of the investment returns of the stock market, gold market and other markets, making a more diversified portfolio, investing in gold funds with littler risk than direct ownership of gold, especially in the inflation and currency devaluation, where the gold market has been treated as an optimistic place, gold investment fund will become the popular investment products, which has an important significance in promoting the development of the gold market in China.

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