The Analysis of Fiscal Expenditure's Effectiveness After the Financial Crisis in China—On the Basis of Effectiveness of Output and Inflation

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Abstract

Recent contexts focusing on the analysis of Chinese government's fiscal expenditure between the year of 2009 to 2014 in the wake of the "four trillion " economy stimulative plan in response to the financial crisis are not very abundant, whereas the problem of the effectiveness of finance expenditure is of great importance to the implementation of fiscal stimulus plans and rationalization the structure thereafter. The paper gets the general ketch of the fiscal expenditure in the past six years through the method of contrast analysis firstly. Then the author forms a theoretical model based on classical Keynesian economics theory and the general result is that the inflationary effect is more obvious than the output effect. Empirical analysis result has shown that after 2009 fiscal expenditure yielding effect just last for two years but the inflationary effect is long-lasting in China and there's substantial cause-and-effect relationship between fiscal expenditure and inflation. At the conclusive part of this paper, the author comes up with brief recommendations on the recent fiscal expenditure structure of Chinese central government.

key words: Financial crisis; Strong inflationary effect; Weak yielding effect; Real gross domestic product

INTRODUCTION

In the wake of financial crisis in 2008, Chinese's government implemented a "four trillion" fiscal stimulus plan, which efficiently drag the nation's economy from downward. The effectiveness of fiscal expenditure after the financial turmoil, whether it's more inflationary or more yielding is crucial to the current government economy blueprint. According to the *Financial Yearbook Of China*, financial expenditure can be classified as 23 to 25 categories (Minor adjustments from year to year). From the classical economic view, it's generally divided into government purchase and public transfer. The former directly boosts domestic demand and the latter indirectly pulls economy growth through economic variables of investment, consumption and others. According to the Keynesian macro economics, fiscal expenditure has an obvious multiplier effect, which means the marginal fiscal expenditure is multiplied, namely yielding effect. On the other side, expansionary fiscal policy will increase currency inflation. Zhao and Zhou (2009) use regression analysis of inter-provincial panel data and has proved the existence of inflationary effect of expansion of fiscal expenditure in China.

1. THE OVERVIEW OF FISCAL EXPENDITURE SINCE 2009

1.1 Data Selection

The paper takes quarterly data from 2009-2014 of real GDP, fiscal expenditure and the inflation representing data of CPI as research. Real GDP is the result of removing the effects of inflation of nominal GDP. The paper also has taken the *Finance Yearbook Of China* and the website of Chinese National Statistics Bureau as the main data sources. All the data is shown in Table 1.

Table 1
Quarterly Data of Fiscal Expenditure, Inflation Index and Real GDP from 2009 to 2014

Time periods	Fiscal expenditure (100 million yuan)	Inflation index (on the basis of the first quarter of 2009)	The real GDP (100 million yuan)
1st quarter of 2009	12,810.9	99.9	69,886.81
2nd quarter of 2009	16,091.7	99.1	80,107.65
3rd quarter of 2009	16,300.2	99.2	83,769.89
4th quarter of 2009	31,097.1	100	109,599.48
1st quarter of 2010	14,330	101.9	81,073.00
2nd quarter of 2010	19,481.4	101.8	90,634.03
3rd quarter of 2010	20,693.6	102.4	95,456.94
4th quarter of 2010	35,070	104.7	123,100.34
1st quarter of 2011	18,053.6	107.2	90,932.41
2nd quarter of 2011	26,381.5	107.8	101,121.12
3rd quarter of 2011	25,045.5	109	106,290.42
4th quarter of 2011	39,451.4	109.5	137,679.80
1st quarter of 2012	24,118.1	111.3	97,459. 09
2nd quarter of 2012	29,774.9	110.8	107,880.07
3rd quarter of 2012	30,226.3	111	113,277.89
4th quarter of 2012	41,592.7	111.6	148,502.28
1st quarter of 2013	27,036.7	114	104,264.98
2nd quarter of 2013	32,677.3	113.4	113,899. 80
3rd quarter of 2013	31,818.3	114	121,996.31
4th quarter of 2013	48,211.7	114.9	158,176.65
1st quarter of 2014	35,025.7	116.2	132,920.2
2nd quarter of 2014	39,612.3	115. 7	278,740.4
3rd quarter of 2014	31,723.8	116.1	435,021.9
4th quarter of 2014	49,524.7	116.6	636,462.7

Note. Adapted from the website of China National Bureau of Statistics. http://www. stats. gov. cn

1.2 The "Four Trillion" Stimulus Plan on Fiscal Expenditure

The four trillion stimulus plan implementation began at the end of 2008 and was completed in the first half of 2010, which consists of 1.18 trillion of RMB public transfer from central government, 2.82 trillion RMB from provincial government, local government bonds issued by central government, enterprise bonds, medium-term notes and policy loans. The 1.18 trillion RMB public transfer has already been recorded in the data presented by Table 1 and the rest is strictly not covered by this paper. From Table 1, we can arrive at a conclusion that after the stimulus plan in 2010, the aggregate amount of fiscal expenditure of China still grows as an accelerating rate and the four trillion RMB is just a beginning of expansion of fiscal expenditure thereafter instead of a temporary emergency measure.

1.3 The Growing Rate and Seasonal Trend of Fiscal Expenditure, Real GDP and CPI

To further probe the fiscal expenditure since 2009, we use comparative quarterly data of 2004-2008. The result is that the average quarterly chain growth rates of fiscal expenditure in2004-2008 respectively are 1.14, 1.21, 1.21 and1.23, whereas the figures of 2009-2014 are respectively 1.21, 1.20, 1.19, and 1.13. We can come to a conclusion that the seasonal trend of fiscal expenditure is alleviating since 2009. Except for the first quarter of 2009, all the data falls within the normal range, signifying that the four trillion stimulus plan hasn't changed the overall amount and structure of fiscal expenditure. From the annual chain rate view, the average chain rate of the past six years are respectively1.20, 1.18, 1.23, 1.18, 1.11 and 1.12, which demonstrates downward tendency overall.

In reference to real GDP and CPI value, the chain rate of real GDP in 2010-2014 are respectively 1.14, 1.12, 1.07, 1.07 and 1.05, which is downward. The chain rate of CPI from 2010-2014 is 1.01, 1.01, 1.00, 1.03 and 1.00, presenting a nearly flat curve. The inflation of our country is somewhat more obvious by comparison.

2. THE THEORETICAL MODEL AND LITERATURE REVIEW OF FISCAL EXPENDITURE

2.1 Model Design

According to the Keynesian national income determination equation, national income = consumption + investment+ public transfer + government purchase-tax income. We here assume tax income is zero for convenience. The Keynesian LM curve is following:

$$r=(k/h)Y-M/Ph \qquad (1)$$

In the above formula, r represents interest rate, ;k represents currency demand sensitivity coefficient; h represents investment sensitivity coefficient to interest rate; M/P represents real currency circulation in the economy. To probe further, we process the formula and diminish r, the result of which is as follows:

$$(\alpha+e+g)/d-(1-\beta)y/d=Ky/h-M/hp \qquad (2)$$

Then transpose the equation to make g the only dependent variable:

$$g=(1-\beta+dk/h)y-Md/ph-\alpha-e \qquad (3)$$

We assume that the aggregate currency supply function is Y=a+b P (a and b are all constant numbers), then build simultaneous equations with Formula (3), we can obtain the following equation:

$$g=(1-\beta+dk/h)bp-Md/Ph+a(1-\beta+dk/h)a-\alpha-e \qquad (4)$$

Next differentiate both sides of Formula (4), we can achieve two decisive formulas:

$$dg=[(1-\beta+dk/h)b+Md/p^2h]dp \qquad (5)$$
$$dg=[1-\beta+dk/h+Mdb/(y-a)^2h]dy \qquad (6)$$

By contrast with Formula (5) and (6), we can conclude the theoretical model outcome:

(1) If b<1, dp/dg>dy/dg i. e. The marginal effectiveness of fiscal expenditure is that inflationary effect is more obvious than output effect.

(2) If b>1, dp/dg<dy/dg i. e. Vice verse

(3) If b=1, dp/dg=dy/dg, i. e The marginal effectiveness of fiscal expenditure is that the yielding effect is more obvious.

2.2 The Literature Review of Fiscal Expenditure

Yuan (2013) estimated that the slope of aggregate supply curve is 0.1, namely b is 0.1, far smaller than 1.Guan (2011) concluded that the slope of aggregate supply curve is forced to enlarge in Chinese economy, that is to say b is diminishing year after year. Zuo (2008) reinspected the aggregate supply function and came to the conclusion that gY_t (Y's growth rate) $= 8.88 + 0.38gP_t$ (P's growth rate) $-0.25gP_{t-1}$; All the above series of studies support the argument that b<1, namely the inflationary effect of fiscal expenditure is more obvious and more observable in China.

There are many other papers involving around the fiscal expenditure efficiency of China. Wang and Lai (2011) has proven fiscal expenditure only has horizontal impact on GDP rather than vertical (growth rate); Wang & Zhu designed a SVAR model and summarized that in the condition of an economic shock of fiscal expenditure, inflation is downward at first and upward then, with inertia and lag; Joshua Aizenman and Yothin Jinjarak through contrast analysis found that the proportion of Chinese government's fiscal expenditure to GDP to deal with the financial crisis of 2008 is 3.5%, whereas the figure of America, which country is implementing quantity easing monetary policy, is 1.8%.

3. THE EMPIRICAL STUDY OF THE EFFECTIVENESS OF FISCAL EXPENDITURE

3.1 Data Processing

This paper conducts an empirical study through software Eviews 6.0 with data from Table 1.According to the unit root test, quarterly fiscal expenditure data and real GDP are both unstable. Take the logarithm of the data, differentiate once then we get ▽LNG and▽LNGDP, which stands for the same economic value with G and GDP in this paper, then all the data is stable.

3.2 Co-integration Test

Co-integration test is aimed at time series data that might be unstable. Whereas in light of the specific projects, variables may have long-term interdependent complex stable relationship among each other which is called co-integration relationship. We use the original time series data of G and GDP, G and CPI to do co-integration tests to lay foundation for the next step of building of VAR model. The results are shown as Table 2 and Table 3.

Table 2
Co-integration Test Result of Fiscal Expenditure G and Real GDP

Included observations: 18 Series: G GDP Lags interval: 1 to 1				
None	None	Linear	Linear	Quadratic
No intercept	Intercept	Intercept	Intercept	Intercept
No trend	No trend	No trend	Trend	Trend
Trace				
0	1	1	2	2
Max-Eig				
0	1	1	2	2

*Critical values based on MacKinnon-Haug-Michelis (1999)

Note. Adapted from Software Eviews 6.0

Table 3
Co-integration Test Result of Fiscal Expenditure G and Inflation Index CPI

Sample: 2009Q1 2014Q4 Included observations: 17 Series: G CPI Lags interval: 1 to 2				
Data trend: None	None	Linear	Linear	Quadratic
Test type No intercept	Intercept	Intercept	Intercept	Intercept
No trend	No trend	No trend	Trend	Trend
Trace 1	1	1	1	2
Max-Eig 1	1	1	1	2

*Critical values based on MacKinnon-Haug-Michelis (1999)

Note. Adapted from Software Eviews 6.0

It is clearly presented in Table 2 and Table 3 that except for the first condition of no intercept and no trend, G and GDP, G and CPI have an obvious co-integration relationship in the 95% confidence interval. Thus a VAR model is permitted to be built.

3.3 VAR Model Building and Analysis

VAR model is a typical model to analyze the auto correlation and inter-dependency of variables and then does forecasting function. The basic mechanism is that when a mathematical model is designed, every piece of current information of endogenous variable is defaulted as the lag information of other economy variables in the system. Thus from the operations research perspective, a VAR model contains the dynamic information of all variables. VAR model can also explain the impact of economy shock to variables, which come to effect by analyzing random shock to the whole economic system. The author conduct a VAR model by ▽LNG, ▽LNGDP and ▽CPI. The empirical result is that the level of fitness of VAR(3) is not higher than VAR(2). Whereas according to the classical rule of AIC and SC, the value of AIC and SC is smaller in VAR(2) than VAR(3). VAR(3) is

preferred. The formula of VAR(3) in this paper is the following one:

$$\begin{pmatrix} cpi_t \\ \nabla \ln gdp_t \\ \nabla \ln g_t \end{pmatrix} = \beta + A \begin{pmatrix} cpi_{t-1} \\ \nabla \ln gdp_{t-1} \\ \nabla \ln g_{t-1} \end{pmatrix} + B \begin{pmatrix} cpi_{t-2} \\ \nabla \ln gdp_{t-2} \\ \nabla \ln g_{t-2} \end{pmatrix}$$

$$+ C \begin{pmatrix} cpi_{t-3} \\ \nabla \ln gdp_{t-3} \\ \nabla \ln g_{t-3} \end{pmatrix} \qquad (7)$$

In Formula (7), β represents the residuals of the system ;A, B and C are respectively coefficient matrices of the variables. Operate software Eviews 6.0 and then achieve the estimation of the coefficient matrix as follows:

$$\begin{pmatrix} cpi_t \\ v \ln gdp_t \\ \nabla \ln g_t \end{pmatrix} = \begin{pmatrix} 2.69 \\ 0.71 \\ 0.64 \end{pmatrix} + \begin{pmatrix} 1.31 & 8.28 & -1.65 \\ 0.00 & -1.00 & 0.00 \\ 0.00 & 0.18 & -1.06 \end{pmatrix} \begin{pmatrix} cpi_{t-1} \\ v \ln gdp_{t-1} \\ \nabla \ln g_{t-1} \end{pmatrix}$$

$$+ \begin{pmatrix} -0.17 & 4.59 & -2.19 \\ 0.00 & -1.05 & 0.01 \\ 0.06 & 0.20 & -1.00 \end{pmatrix} \begin{pmatrix} cpi_{t-2} \\ \nabla \ln gdp_{t-2} \\ \nabla \ln g_{t-2} \end{pmatrix}$$

$$+ \begin{pmatrix} -0.16 & 4.12 & -2.65 \\ 0.00 & -0.13 & -0.01 \\ -0.07 & -0.60 & -0.68 \end{pmatrix} \begin{pmatrix} cpi_{t-3} \\ \nabla \ln gdp_{t-3} \\ \nabla g_{t-3} \end{pmatrix} \qquad (1)$$

The Matrix (1)clearly shows that the current fiscal expenditure influence more of the next term, the next of the next term of CPI value than those of GDP, which is $|-1.65| > |0.00|$, $|-2.19| > |0.01|$, $|-2.65| > |0.01|$. The economic explanation of the result is that fiscal expenditure does have a lasting impact on the CPI rising, which is at least three quarters.
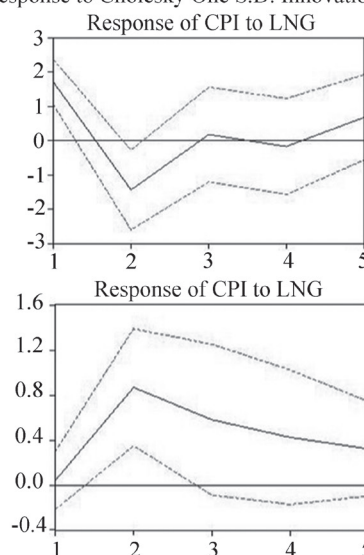
3.4 Impulse Response Analysis

Impulse response analysis reflects the response of the whole economy system when it suffers from a random shock. In other words, it mirrors when one factor varies, what the other factors will present in short and long term. By the above data in Table 1, we default a random shock in ∇LNG, the corresponding response of ∇LNGDP and CPI in 5 periods and 20 periods are respectively shown in Figure 1.

The horizontal axis represents periods of shock, the vertical axis represents the specific responses. In the five periods response graph, when there is a disturbance in ∇LNG, ∇LNGDP and CPI instantly response positively, which means the expansion of fiscal expenditure will increase output and bring inflation at the same time. What should call attention is that there's negatively response of ∇LNGDP in the 1.5 to 3 quarters, during which there may be the "bottleneck period" of fiscal expenditure to release the elements to real economy system. In the five response periods, there's lasting positively response of CPI to GDP and the response reaches its peak in the second period.

In the twenty periods response graph, we can deduce that when there's disturbance of G inside the whole dynamic system, in the short time GDP fluctuated dramatically. The oscillation period is three quarters at first and then shrunk to two. After eight periods the fluctuation is negligible. That denotes fiscal expenditure expansion can have influence on national income just for two years. On the contrary, the fluctuation of CPI is not that violent and the influence can last more than two years. The inflationary effect of fiscal expenditure is permanent.
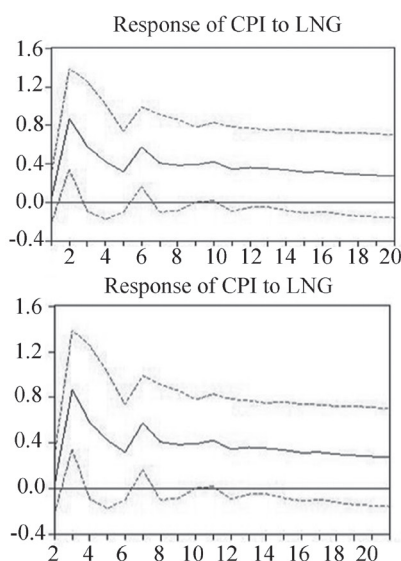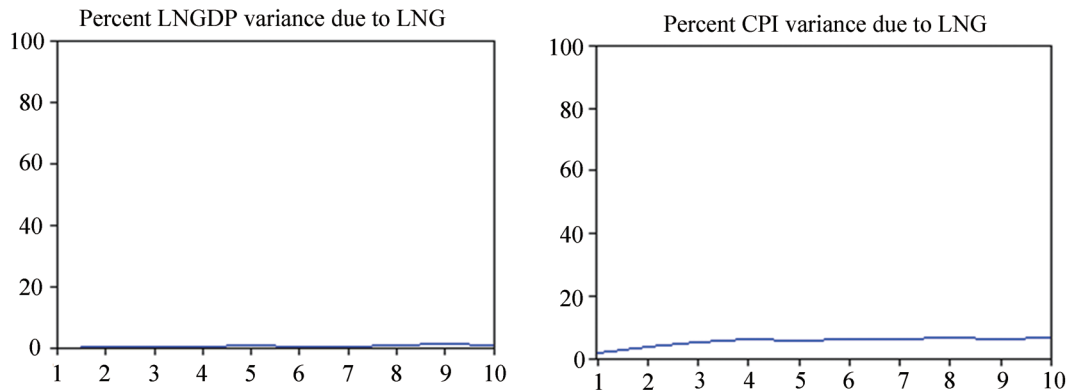

Figure 1
The Impulse Response
Soure: Software Eviews 6.0

3.5 Variance Decomposition Analysis

Variance decomposition is used to analyze a type of contribution rate that in terms of variance. The contribution rate implies the contribution level of an endogenous variable which is shocked by external factors to the rest variables fluctuation. Then achieve relative significance in the condition of different shocks of endogenous variables. In this paper we inquire the contribution rate of G to GDP and CPI respectively to compare the effectiveness of fiscal expenditure. The variance decomposition results from Eviews 6.0 is presented in Figure 2.

Figure 2
The Result of Variance Decomposition Graph
Source: Software Eviews 6.0

From Figure 2 we can get the information that in 10 periods (approximately two and half years), the contribution rate of G to GDP is very little. The average number is 1% and the highest is 1. 86%. Nevertheless the contribution rate to CPI is up to 6.5%, five times larger than GDP.

3.6 Gr-anger Causality Test

Gr-anger causality test works as the following mechanism: if the lag information of a certain variable is conducive to explain the other one's information of the past and the foreseeable future, these two variables have grange cause-and-effect relationship. The results from Eviews 6.0 of this paper is in Table 4.

Table 4
The Granger Causality Test Result of ▽LNGDP, ▽LNG and CPI

Sample: 2009Q1 2014Q4 Lags: 3			
Null Hypothesis:	Obs	F-Statistic	Prob.
LNGDP does not Granger Cause LNG	16	0.79917	0.5249
LNG does not Granger Cause LNGDP		0.11736	0.9476
CPI does not Granger Cause LNG	16	0.95597	0.4542
LNG does not Granger Cause CPI		6.06080	0.0153
CPI does not Granger Cause LNGDP	16	32.4042	4.E-05
LNGDP does not Granger Cause CPI		10.1433	0.0030

According to the test results, the increase of the amount of fiscal expenditure is the grange reason of inflation rather than GDP growth. It keeps consistent with the previous test results of VAR model, impulse response analysis and variance decomposition.

3.7 Summary of The Empirical Study of Fiscal Expenditure

(a) In general the inflationary effect is more obvious than yielding effect of fiscal expenditure expansion

(b) The fiscal expenditure expansion will have permanent impacts on the value CPI and there's an absolute cause-and-effect relationship between the two.

(c) The fiscal expenditure from central government will bring in oscillation of real GDP in two and half years and the wave will cease with time gone. The long-term contribution rate of G to GDP is rather small and no cause-and-effect relationship shows up.

4. CAUSE ANALYSIS OF THE HIGH INFLATIONARY EFFECT AND LOW YIELDING EFFECT OF FISCAL EXPENDITURE

From the Keynesian economics, Song (2013) calculated the macro data of China and proposed that the coefficient of investment to interest rate is very low, under which condition, the fiscal expenditure will bring in more price increasing than national output. Nonetheless, the reasons of the insensitivity of investment to interest rate are very complex, such as irrational investment and over-investment, immature of the financial system, government control of interest rate and government intervention of macro economy.

4.1 Cause Analysis of Low Yielding Effect

In addition to the above reasons recognize by public, the author hold the opinion that there are many other causes of low yielding effect in respect to fiscal expenditure.

4.1.1 Irrational Structure of Fiscal Expenditure
On the basis of <Financial Yearbook of China> of 2009-2014, the author draw a pie chart of fiscal expenditure's structure in Figure 3
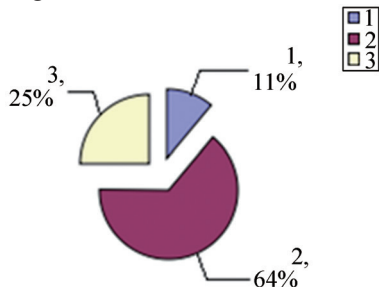
Figure 3
The Structure of Fiscal Expenditure
Source: Website of Chinese National Bureau Of Statistics

In Figure 3, number 1 represents the government expenditure of supervision of financial system, business turnover, real estate market reform, economic subsidies, science and technology investment and the like, which directly boost economy development. Number 2 represents infrastructure construction and public affairs (including education, medical treatment, environment protection, public transportation and the like). Number 3 represents public safety, foreign affairs and others. From the pie chart we can deduce that in the five years, the fiscal expenditure which directly boost economy development takes up only approximately 11% of the whole amount, whereas expenditures for infrastructure and pubic affairs are very large, up to 64%. These figures vividly depict the unreasonable structure of fiscal expenditure.

4.1.2 The Inefficiency of Fiscal Expenditure
The production effect argue that the investment of transportation and telecommunication, culture and education, the cost of improving legal system is of great significance to the improvement of productivity. These investments can lower the transaction costs of inside and among areas, which leads to the efficiency of enterprises and the aggregate supply will be leveled up. From the previous paragraph, the fiscal expenditure in infrastructure is very huge, so it will make sense that these expenditures will boost economy dramatically one day. Whereas the the outcome is far from satisfaction in reality of China. The total amount of expenditure aiming at infrastructure and the pulling rate of capital formation to GDP growth are respectively shown as Table 5.

Table 5
The Fiscal Expenditure for Infrastructure and Capital Formation Rate

	2009	2010	2011	2012	2013
The expenditure for infrastructure construction	25,166.92	54,493.95	54,016.66	79,061.42	66,325.07
The pull rate of gross capital formation to GDP	47%	87.6%	52.9%	47.7%	47.1%

Note. Adapted from the website of Chinese National Bureau Of Statistic

Further calculate the numbers in the above table, we can see that the directly average contribution rate of infrastructure expenditure to GDP growth is 22.5%, which reflects the inefficiency of fiscal expenditure. Many loans and subsidies from central government are used to over-investment and repeat investment.

4.1.3 The Crowd-out Effect of Fiscal Expenditure
Shuai (2013) concluded that the fiscal expenditure of quarterly data from 2009 to 2012 brings in large crowd-out effects to personal investment on the basis of the model of MS-VECM dynamic time series path analysis. From empirical data, though the growing rate of fiscal expenditure of 2009-2013 is modest, a large proportion of money is financed through national bonds. According to the website data of China bond, the total amount of national bonds raised drastically from 70 billion in 2008 to 160 billion in 2009. In the condition of finance resource constraints, the issuing of national bonds causes competition between government and enterprises, which obliviously leads to the shortage of loan-able money in private sector. Simultaneously, huge scales of government financing causes the rising of treasury bonds rate. When there's liquidity crisis prevalence, the high real interest rate restrains private loans and damages the economy.

4.2 Cause Analysis of High Inflationary Effect

4.2.1 The Demand-pull Inflation Caused by Fiscal Expenditure Expansion
The aggregate demand of China is shown as Table 6 (the data for 2014 hasn't been published yet). Through further calculation we can obtain the annual pull rates of fiscal expenditure to aggregate demand are respectively (The formula is the added value of fiscal expenditure divide the added value of demand): 41.79%, 25.11%, 24.88% and 33.03%. The function of pulling aggregate demand is very huge and naturally lead to price rising

Table 6
The Gross National Demand for from 2008 to 2013

	2008	2009	2010	2011	2012	2013
Total national demand (100 million yuan)	315974.47	348775.07	402816.66	472619. 17	529238.43	58673.86

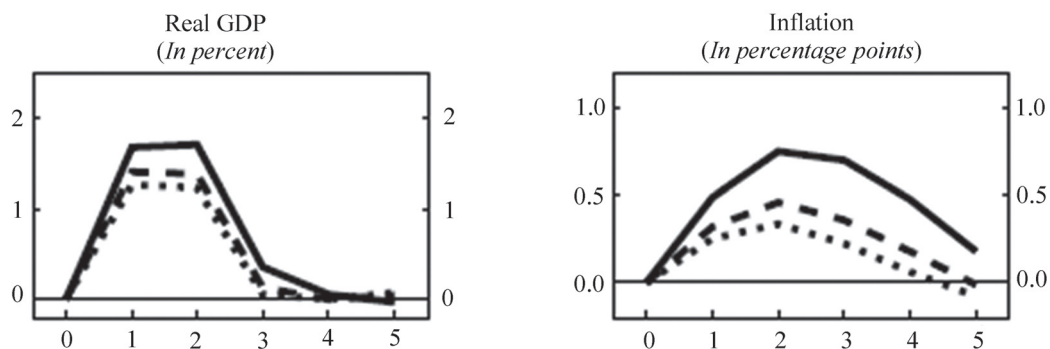*note.* Adapted from the website of Chinese National Bureau of Statistics

4.2.2 The Cost-push Inflation Caused by Fiscal Expenditure Expansion

When the total demand increase, the demand for labors in entrepreneurs is huger. The wage raises correspondingly. A vicious-circle cost-push inflation phenomenon is very prevalent in China in recent years.

5. POLICY RECOMMENDATIONS OF IMPROVEMENT OF ECONOMIC EFFECT OF FISCAL EXPENDITURE

5.1 Comparative Analysis of Fiscal Expenditure Policies Among Different Countries

Due to the financial turmoil in 2008, the real GDP and fiscal expenditure are influenced in various countries.

Based on an IMF working paper research concerning to the fiscal expenditure effect in 2009-2010, the fiscal expenditure's yielding effect in America is 0.5% and 0.3%, 0.5% and 0.3% in European, 1.5% and 1.3% in Japan. The above variance decomposition in the previous empirical test reveals the figure in our country is 1% or so, which is satisfactory to some degree. In reference to the inflationary effect, Figure 4 provides a comparative path.

Adapted from *Global Effects Of Fiscal Stimulus During The Crisis*, IMF working paper, 2010

This Figure 4 reveals that the yielding effect is larger than inflationary effect in America. Nevertheless, the output effect is approximately 1%, the inflationary effect is even smaller than that. By contrast, the yielding effect of fiscal expenditure in China is consistent with America, whereas the inflation is too obvious.

Figure 4
The Effectiveness of Fiscal Expenditure Which is Used for Investment

5.2 Policy Recommendations and Suggestions

In respect to the above analysis, the author puts up with the following recommendations to the current fiscal expenditure in China.

(a) Increase the Proportion of Direct Investment in Economy Development.

Although the expenditure for national safety, environment protection and social assurance is the necessary part of economy boost, it's urgent to increase the proportion of fiscal expenditure which is directly boost economy development.

(b) Rationalize the Ultimate Goal of Fiscal Expenditure

In the expenditure for infrastructure construction and public affairs, the government must pay attention to the ultimate destination of the money, make adjustment among sectors and prevent corruption and inefficiency.

(c) Fully Consider the Impact of Inflation

The fiscal expenditure expansion in one period will bring in long-lasing inflation, it's necessary to consider the permanent effect when the government is decided to enlarge fiscal expenditure every time.

(d) Coordinate with Other Economy Polices

The fiscal expenditure expansion can cause severe fluctuation in real GDP, so other economic controls must be carried out to neutralize the oscillation. Monetary policy such as easing liquidity is also urgent to alleviate the high level of inflation rate.

CONCLUSION

To sum up, in the wake of the financial turmoil in 2008, the growing rate of fiscal expenditure of Chinese central government is retarding and the seasonal trend is less substantial than the years before 2008. Both of the theoretical model and the empirical analysis have reached a consensus that the inflationary effect is more apparent than output effect. Nonetheless, the yielding effect is quite satisfactory when compared to other developed countries under transverse analysis. The inflationary effect is of quite concern, which can be counted as a conundrum faced by China government. Rearranging the structure of fiscal expenditure and conjunction with other economic policies are of vital significance to cast off the inefficiency. This paper in detail discussed the effectiveness of fiscal expenditure of Chinese government. The cause analysis part covers many economy aspects such as treasury bonds. The comparative analysis with other countries makes the status qua of Chinese central government very clear, another innovative point in documents. There maybe defects in the process of analysis, which needs further professional suggestions.

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