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# The Impact of Institution to the Development of China Economy

LV Xinxia[a],*

[a]Master, University of Political Science and Law, Beijing, China.
*Corresponding author.

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## Abstract

As a typical transition country, the economics growth of China is affected by many factors and institutional factors play a significant role among them. On the one hand, institutional change provides impetus for the rapid development of the economy. On the other hand, the rigid arrangements of the institution have hindered the further economic development. Based on the analysis of transaction cost, ownership and marketization in China, this paper selects the indicators of the three factors above in the period of 2000 to 2015 to form an institution index. It then set up a neoclassical growth model to calculate the contributions of different parts of institution change. It finds that comparing to the increase of capital, institution also plays an important role in the rapid development of the economy in China. Specifically, marketization has the largest impression on the growth of economy, followed by ownership reform and the reduction of transaction cost.

**Key words:** Institutional factors; Development; China Economy; Marketization

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## INTRODUCTION

Since the 1990s, China economy has benefited a lot from institutional innovation and the reform of the economic system, especially the reform and opening-up policy. The policy has brought strong power to the initial development of China economic. It also makes the economy step to a road with the characteristics of all aspects, multi-tiered and wide-ranging. China thus has become the second largest economy in the world and made people's living standard continuously improved. From 1998 to 2007, as a result of a series of important reform measures, such as price reform and the social security system reform, the GDP growth rate increased, followed by a gradual decline. According to estimates, the GDP growth rate in 2016 will be around 7%. China's economy has entered into a medium growth cycle, which is determined by the characteristics of China economy, which is also called the New Normal.

However, with the further rapid development of economy, there are also some serious problems, especially the institutional factors which restrict the further development of the economy, such as the surge of transaction costs, the unclear definition of the ownership of the non-state economy and insufficient level of marketization, etc. Therefore, analyzing the institutional factors that affect China's economic growth has important theoretical and realistic significance.

## 1. LITERATURE REVIEW

The traditional theory of economic growth mainly focuses on long-term economic growth, and then analyzes the importance of different factors in economic growth. Since Harrod (1939) and Domar (1946) introduced the mathematical model in the theory of economic growth, most of the researchers focus on analyzing the growth of the economy by econometric measures. On the basis of Harrod-Domar Model, Solow (1956) introduced the Cobb-Douglas production function into his growth model and determined the alternative of labor and capital, which created the neoclassical growth model. Although Solow solved the "blade" growth dilemma in the Harrod-Domar model, but it cannot explain where the source of economic

growth came from. The further development of this model pays attention to add more factors into the model to break through the theoretical limitations. For instance, Romer (1986) introduced the human capital and knowledge into the model, while Lucas (1998) distinguished the differences between internal and external effect of human capital.

In 1920s, it turned that the spontaneous balance theory of market works quite different from the reality. The neoinstitutional economics proves that the constraint variables that affect the operation of the economy include institutional variables such as uncertainty, asymmetric information, incomplete contracts and opportunism behavior. North (1990), for example, took the institutional factors as an endogenous variable of economic growth. The effect of the institution worked through a series of rules to define trade relationship, reduce the environment uncertainty and transaction costs, protect property rights, improve productive activities and then make the potential benefits of trading activities become a reality. Institution plays a decisive role on economic growth. It can improve the well-being of individuals on the condition of not reducing others' welfare and thus achieving Pareto improvement. The theory of neoinstitutional economics is composed of four main parts: transaction cost theory, property rights theory, contract theory and the theory of institutional change. Among them, the theory of institutional change focuses on the relationship and intrinsic logic between the former ones. It is difficult to quantify, thus most of the researchers focus on the theoretical and quantify of the former three theories:

### 1.1 Transaction Cost Theory

North (1982) took the reduction of transaction costs as a source of economic growth, and thus the changes of the institution are to save transaction cost. Williamson (1998) also held similar views. He thought that the existence of economic organizations helps save transaction cost. However, because the concept of transaction costs covers a large amount of aspects, it is difficult to measure it accurately. But with reference to the method that proposed by Wallis and North (1986) in the journal of the American economy trade, it can be estimated by dividing the department of national economy into public and private sectors and then taking the transaction costs from the private sector as the overall transaction cost.

### 1.2 Property Rights Theory

According to the analysis of Alchian and Demsetz (1972), the clear definition of property rights will realize the unification of the private cost and social cost by internalize the externality of economic behavior. Therefore, the development of property rights is to realize the internalization of externality internalization when income is greater than the cost. North and Thomas (1976) thought that among all the rules that motivate people and promote the economic growth, the role of the property system is the most outstanding one.

### 1.3 Contract Theory

Since the early 1990s, the analysis of transition economy mainly focuses on marketization (Roland, 2000). Havrylyshyn and other scholars (1998) used EBRD model found that the impact of the market on economic growth is extremely significant. Melo and other scholars (2001) used some indexes to estimate internal and external market and the privatization of the market, finding that marketization has a positive role in promoting economic growth. But since then, some studies obtained different conclusions. Such as the result of Falccetti et al. (2002) showed that different countries and different start-stop time leads to the fluctuation of the promoting effect that marketization placed on economic growth. Fidrmuc (2001) also proved that from 1996 to 2000, the effect of marketization was not obvious.

Scholars in China mainly analyze the structure of the economics. For example, Zhang (2000) believed that the percentage of transaction cost in national income determines whether a society is rich or not. And different social economic system leads to different ways of transaction, which determines the allocation of resources and the quality of the economics. Jin (2001) selected the rate of privatization, the degree of marketization, the percentage of fiscal revenue as a share of GDP and opening-up as four indexes for the quantitative analysis of institutional factors. Fu and Wu (2003) proposed an empirical analysis of the institution in promoting China economy.

In general, the traditional neoclassical growth model solves the problem of "edge dilemma" in the Harrod-Domar Model by assuming that capital and labor are able to substitute by each other. However, it cannot explain the dynamic source of economic growth. Since then, the development of neoclassical growth model moves towards to the internalization of external factors. The development of new institutional economics takes the institutional factors as the drivers of economic growth. However, although it has become the consensus of the economics profession that the change of the institution forces the economics to develop rapidly, but the quantitative methods are used enough among the researchers. As for the dynamic mechanism of institution, the answer has not been unified. Domestic researches start relatively late, leading to insufficient research on economic growth and presenting a certain convergence. They also do not form a targeted policy suggestions and opinions on how to enhance the level of economic growth.

In this paper, on the basis of summarizing the above literature, it will select three indicators, which are the transaction cost, the degree of ownership and the level of marketization to propose a quantitative analysis. Thus it will internalize the institutional factors that affect the economic growth in China, analyze the contribution of these indicators and put forward the corresponding policy suggestions.

## 2. THE SELECTION OF INSTITUTIONAL INDEX AND QUALITATIVE ANALYSIS

### 2.1 Transaction Cost Index and Qualitative Analysis

The existence of transaction cost hinders the development of economy. It is also an inevitable "friction" (Williamson, 1998) in economic activities. On the one hand, the existence of transaction cost increases the transmission cost of information and aggravates the information asymmetry between people. Thus the opportunistic has an opportunity. On the other hand, the necessary transaction cost is the lubricant of the economic operation. It promotes the specialized division of labor and transaction between people. As a result, the necessary transaction cost has a promoting effect on economic growth. But transaction cost that is too low or too high will hinder economic operation. This paper defines the absolute scale of transaction cost as absolute transaction cost, namely the sum of all the added value of the private sector. And it defines the relative transaction cost as the proportion of absolute transaction cost accounted for GDP. The sample period is from 2000 to 2015. The data is shown in Table 1.

**Table 1**
**The Transaction Cost from 2000 to 2015**

| Year | CPI (2000 as base period, %) | GDP (100 million CYN) | | Absolute Transaction Cost (100 million CYN) | | Relative Transaction Cost (%) |
|---|---|---|---|---|---|---|
| | | Current Prices | 2000 as base period | Current Prices | 2000 as base period | |
| | (1) | (2) | (3)=(2)/(1) | (4) | (5)=(4)/(1) | (6)=(4)/(2) |
| 2000 | 100.0 | 99776.3 | 99776.3 | 24737.5 | 24737.5 | 24.79 |
| 2001 | 100.7 | 110270.4 | 109503.9 | 27623.1 | 27431.1 | 25.05 |
| 2002 | 99.9 | 121002.0 | 121123.1 | 30393.6 | 30424.1 | 25.12 |
| 2003 | 101.1 | 136564.6 | 135078.7 | 33605.2 | 33239.6 | 24.61 |
| 2004 | 105.0 | 160714.4 | 153061.3 | 38253.9 | 36432.2 | 23.80 |
| 2005 | 106.9 | 185895.8 | 173896.9 | 43851.5 | 41021.0 | 23.59 |
| 2006 | 108.5 | 217656.6 | 200605.2 | 52749.0 | 48616.6 | 24.23 |
| 2007 | 113.7 | 268019.4 | 235725.1 | 69350.1 | 60993.9 | 25.88 |
| 2008 | 120.5 | 316751.7 | 262864.5 | 81226.7 | 67408.0 | 25.64 |
| 2009 | 119.6 | 345629.2 | 288987.6 | 92726.8 | 77530.8 | 26.83 |
| 2010 | 123.6 | 408903.0 | 330827.7 | 111333.9 | 90076.0 | 27.23 |
| 2011 | 130.2 | 484123.5 | 371830.6 | 133144.1 | 102261.2 | 27.50 |
| 2012 | 133.6 | 534123.0 | 399792.7 | 149652.4 | 112015.3 | 28.02 |
| 2013 | 137.1 | 588018.8 | 428897.7 | 170365.6 | 124263.7 | 28.97 |
| 2014 | 139.8 | 635910.0 | 454871.2 | 188437.4 | 134790.7 | 29.63 |
| 2015 | 141.8 | 676708.0 | 477227.1 | 195845.1 | 138113.6 | 28.94 |

*Note*. Adapted from the China Statistical Yearbook.

### 2.2 The Selection of Ownership Index and Qualitative Analysis

The definition of private ownership as an effective system arrangement can safeguard legitimate income of the individual, which improved the ownership of property rights. (North & Thomas, 1976) It thus forms an effective incentive by encouraging individual to work harder. In addition, the reasonable arrangement of the ownership can also promote the resource distribute in a more efficient way and optimize the allocation of resources, thereby increasing the output of the economy. Therefore, the reasonable arrangement of the ownership has promoting the economy. On the contrary, the unreasonable ownership has a blocking effect on the economy. This paper selects the proportion of the non-state-owned industry assets in total industry assets as the ownership index. The sample period is from 2000 to 2015, the data shown in the Table 2.

**Table 2**
**The Proportion of the Non-state-owned Industry Assets in Total Industry Assets from 2000 to 2015**

| Year | Total Industry Asset (billion CYN) | Non-state-owned Industry Assets (billion CY) | The Proportion of the Non-state-owned Industry Assets in Total Industry Assets (%) |
|---|---|---|---|
| 2000 | 12621.1 | 7888.1 | 62.50 |
| 2001 | 13540.3 | 9340.7 | 68.98 |
| 2002 | 14621.8 | 10592.4 | 72.44 |
| 2003 | 16880.8 | 12717.1 | 75.33 |
| 2004 | 21535.8 | 17094.0 | 79.37 |
| 2005 | 24478.4 | 19903.0 | 81.31 |
| 2006 | 29121.5 | 24227.3 | 83.19 |

**To be continued**

**Continued**

| Year | Total Industry Asset (billion CYN) | Non-state-owned Industry Assets (billion CY) | The Proportion of the Non-state-owned Industry Assets in Total Industry Assets (%) |
|---|---|---|---|
| 2007 | 35303.7 | 29831.5 | 84.50 |
| 2008 | 43130.6 | 36420.4 | 84.44 |
| 2009 | 49369.3 | 42500.8 | 86.09 |
| 2010 | 59288.2 | 51299.4 | 86.53 |
| 2011 | 67579.7 | 58704.3 | 86.87 |
| 2012 | 76842.1 | 66638.6 | 86.72 |
| 2013 | 87075.1 | 80092.5 | 91.98 |
| 2014 | 95677.7 | 88982.3 | 93.00 |
| 2015 | 105245.5 | 98704.0 | 93.78 |

*Note*. Adapted from the China Statistical Yearbook.

### 2.3 The Selection of Marketization Index and Qualitative Analysis

Marketization represents the level of opening-up and the development of non-state economy. The marketization reform that China adopts is an institutional changes that swifts from planned economy to market economy in which the market plays the key role. Compared with the planned economy, market economy has more vitality. It can thus promote individuals more actively involved in the economic activity, resulting in the accumulation of social wealth. Therefore, market-oriented reform is able to promote economic growth. This paper argues that institutional factors such as the establishment of the price system, the construction of the market order and the macroeconomic regulation will eventually implement to increase the activities of private and foreign capital in the society and economic. In view of the complicated behavior of the market economy, the selection of indicators is difficult. This paper learns from the method that adopted by Huang and Zhang (2005) and selects the following nine indicators from four aspects. Data is shown in Table 3.

**Table 3**
**Marketization Indicators from 2000 to 2015**

| Year | Fiscal Expenditure/ GDP (%) | Non-state-owned Industrial Output Value/ Total Industrial Output Value (%) | Non-state-owned Fixed Asset Investment/ Total Fixed Asset Investment (%) | Non-state-owned Employment/ Total Employment (%) | Foreign Direct Investment/ GDP (%) | Patent Accepted/ GDP (piece/1,000 million CYN) | Patent Authorization/ GDP (piece/1,000 million CYN) | Export/ GDP (%) | Import/ GDP (%) |
|---|---|---|---|---|---|---|---|---|---|
| 2000 | 15.92 | 53.19 | 49.86 | 88.76 | 4.92 | 1.71 | 1.06 | 20.68 | 18.68 |
| 2001 | 17.14 | 56.17 | 52.69 | 89.51 | 3.73 | 1.85 | 1.04 | 19.97 | 18.28 |
| 2002 | 18.23 | 59.63 | 56.60 | 90.23 | 3.76 | 2.09 | 1.09 | 22.27 | 20.19 |
| 2003 | 18.05 | 62.88 | 61.09 | 90.68 | 3.40 | 2.26 | 1.33 | 26.57 | 25.04 |
| 2004 | 17.73 | 65.58 | 64.49 | 90.96 | 3.21 | 2.20 | 1.18 | 30.55 | 28.89 |
| 2005 | 18.25 | 66.97 | 66.58 | 91.31 | 2.81 | 2.56 | 1.15 | 33.70 | 29.20 |
| 2006 | 18.57 | 69.06 | 70.03 | 91.42 | 2.23 | 2.63 | 1.23 | 35.65 | 29.12 |
| 2007 | 18.57 | 70.75 | 71.81 | 91.46 | 2.22 | 2.59 | 1.31 | 34.91 | 27.35 |
| 2008 | 19.76 | 72.22 | 71.82 | 91.47 | 2.09 | 2.62 | 1.30 | 31.70 | 25.11 |
| 2009 | 22.08 | 73.64 | 68.97 | 91.53 | 1.81 | 2.83 | 1.68 | 23.73 | 19.85 |
| 2010 | 21.98 | 73.72 | 70.04 | 91.44 | 1.80 | 2.99 | 1.99 | 26.17 | 23.16 |
| 2011 | 22.57 | 74.19 | 73.52 | 91.23 | 1.53 | 3.37 | 1.98 | 25.46 | 23.37 |
| 2012 | 23.58 | 76.31 | 74.32 | 91.08 | 1.34 | 3.84 | 2.35 | 24.22 | 21.49 |
| 2013 | 23.84 | 78.42 | 75.39 | 91.73 | 1.25 | 4.04 | 2.23 | 23.32 | 20.58 |
| 2014 | 23.87 | 80.81 | 75.59 | 91.83 | 1.16 | 6.91 | 0.17 | 22.63 | 18.93 |
| 2015 | 25.97 | 84.84 | 62.99 | 93.46 | 1.15 | 1.63 | 0.53 | 20.90 | 15.44 |

*Note*. Adapted from the China statistical yearbook and China statistical yearbook of science and technology.

a) From the perspective of the resource allocation in the whole social, it chooses the proportion of fiscal spending in GDP.

b) From the perspective of the development of non-state-owned economy, it selects the gross industrial output value proportion of non-state economy, the proportion of investment in fixed assets in the whole society and urban and rural employment population proportion.

c) From the perspective of opening-up, it selects the proportion of foreign direct investment, import and export in GDP.

d) From the perspective of the development of the market system, it selects the proportion of patent accepted and patent authorization in GDP.

According to the data collected, it then uses the method of principal component analysis in SPSS and compound a comprehensive index of marketization. The result is shown in Table 4.

**Table 4**
**Marketization Index from 2000 to 2015**

| Year | Marketization Index | Year | Marketization Index |
|---|---|---|---|
| 2000 | 119.49 | 2008 | 153.65 |
| 2001 | 124.33 | 2009 | 150.7 |
| 2002 | 130.72 | 2010 | 152.88 |
| 2003 | 138.11 | 2011 | 155.69 |
| 2004 | 143.74 | 2012 | 157.41 |
| 2005 | 147.54 | 2013 | 159.35 |
| 2006 | 152.05 | 2014 | 160.73 |
| 2007 | 153.58 | 2015 | 153.55 |

e) Institution Score

According to the three indicators above, it uses principal component analysis again to compound an institution score. The result is shown in Table 5.

**Table 5**
**Institution Score from 2000 to 2015**

| Year | Relative Transaction Cost (%) | The Proportion of the Non-state-owned Industry Assets in Total Industry Assets (%) | Marketization Index | Institution Score |
|---|---|---|---|---|
| 2000 | 24.79 | 62.50 | 119.49 | 194.35 |
| 2001 | 25.05 | 68.98 | 124.33 | 205.47 |
| 2002 | 25.12 | 72.44 | 130.72 | 214.92 |
| 2003 | 24.61 | 75.33 | 138.11 | 224.28 |
| 2004 | 23.80 | 79.37 | 143.74 | 232.87 |
| 2005 | 23.59 | 81.31 | 147.54 | 238.16 |
| 2006 | 24.23 | 83.19 | 152.05 | 244.78 |
| 2007 | 25.88 | 84.50 | 153.58 | 248.88 |
| 2008 | 25.64 | 84.44 | 153.65 | 248.69 |
| 2009 | 26.83 | 86.09 | 150.70 | 248.52 |
| 2010 | 27.23 | 86.53 | 152.88 | 251.33 |
| 2011 | 27.50 | 86.87 | 155.69 | 254.54 |
| 2012 | 28.02 | 86.72 | 157.41 | 256.45 |
| 2013 | 28.97 | 91.98 | 159.35 | 264.22 |
| 2014 | 29.63 | 93.00 | 160.73 | 267.07 |
| 2015 | 28.94 | 93.78 | 153.55 | 260.50 |

Among them, the contribution of the transaction cost, the ownership and marketization to the change of the institution in China are 30.33%, 35.52% and 34.14% respectively. It is obvious that the promotion effect of three indicators is very close to each other. The most effective one is the change of the ownership system, followed by the marketization reform and the transaction costs which reflect the increase of deals.

## 3. THE ESTABLISHMENT OF ECONOMIC GROWTH MODEL

On the basis of the data above, this paper will establish a model using Cobb-Douglas production function, which includes capital, labor, technology and variables of institution to study the effect of the institution on economic growth. Specific equation is shown below:

$$Y = AK^{a}L^{b}I^{c}e^{\varepsilon}$$

Among them, Y is the national output. A represents the total factor productivity, using the method of Solow residual to handle. K is the investment of capital. L is on behalf of the investment in labor. The word I represents the index of institution. The word a, b and c are parameters in the model. ε is a random disturbance. The data of each variable is shown in Table 6 (the data of Y and K eliminates price factors):

**Table 6**
**The Data of the Variables in the Production Model**

| Year | Y (100 million CYN) | K (100 million CYN) | L (100 million) | I |
|---|---|---|---|---|
| 2000 | 99776.30 | 126211.24 | 72085 | 194.35 |
| 2001 | 109503.87 | 134461.77 | 72797 | 205.47 |
| 2002 | 121123.12 | 146364.14 | 73280 | 214.92 |
| 2003 | 135078.73 | 166971.02 | 73736 | 224.28 |
| 2004 | 153061.33 | 205102.86 | 74264 | 232.87 |
| 2005 | 173896.91 | 228984.33 | 74647 | 238.16 |
| 2006 | 200605.16 | 268400.47 | 74978 | 244.78 |
| 2007 | 235725.07 | 310499.01 | 75231 | 248.88 |
| 2008 | 262864.48 | 357929.92 | 75564 | 248.69 |
| 2009 | 288987.63 | 412786.67 | 75828 | 248.52 |
| 2010 | 330827.67 | 479677.90 | 76105 | 251.33 |
| 2011 | 371830.65 | 519045.21 | 76420 | 254.54 |
| 2012 | 399792.66 | 575165.57 | 76704 | 256.45 |
| 2013 | 428897.74 | 635121.13 | 76977 | 264.22 |
| 2014 | 454871.24 | 684389.99 | 77253 | 267.07 |
| 2015 | 477227.08 | 742210.80 | 77451 | 260.50 |

To facilitate the estimation of the neoclassical production function, it takes natural logarithms on both sides. The new function is shown below:

$$lnY = lnA + \alpha lnK + blnL + clnI + \varepsilon$$

It then estimates the model using the method of OLS. The result shows that the value of $R^2$ and F test is higher than expected, and the parameters of each variable are very small. In addition, through the inspection, it finds that the original model has the multicollinearity problems, illustrating that the stability is poor. Therefore, it must first solve the problem of multicollinearity. In this paper, Using y = y/L, k = k/L rebuilding the model, the original model is adjusted to the following form:

$$y = Ak^{\alpha}I^{\beta}e^{\varepsilon}$$

Taking natural logarithms on both sides, the new function is shown below:

$$lny = lnA + \alpha lnk + \alpha lnI + \varepsilon$$

It then uses Eviews to process OLS analysis and adopt the method of first-order lag to eliminate autocorrelation. The result is shown in Table 7.

**Table 7**
**Result after Processing OLS Analysis and Eliminating Autocorrelation**

Dependent Variable: LNY
Method: Least Squares
Date: 04/16/16 Time: 10:51
Sample (adjusted): 2000 2015
Included observations: 16 after adjustments

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| LNK | 0.480666 | 0.077551 | 6.198042 | 0.0000 |
| LNI | 3.310900 | 0.406100 | 8.152914 | 0.0000 |
| LNA | 0.875365 | 0.599560 | 1.460012 | 0.1700 |
| C | -18.66549 | 2.168895 | -8.605992 | 0.0000 |
| R-squared | 0.993698 | Mean dependent var | | -0.001002 |
| Adjusted R-squared | 0.992122 | S.D. dependent var | | 0.557554 |
| S.E. of regression | 0.049487 | Akaike info criterion | | -2.961902 |
| Residual sum of squares | 0.029387 | Schwarz criterion | | -2.768755 |
| Log likelihood | 27.69522 | Hannan-Quinn criter. | | -2.952011 |
| F-statistic | 630.6939 | Durbin-Watson stat | | 0.784112 |
| Prob (F-statistic) | 0.000000 | | | |

It can thus get the following regression equation:

$lny = -18.66549 + 0.875365lnA + 0.480666lnk + 3.310900lnI$

The statistical tests in the table show that the equation fits the data well. Therefore the equations can express the contribution of institution and per capita capital on per capita yield. The Table 8 shows the contribution of institution to economic growth from 2000 to 2015:

**Table 8**
**The Contribution of Capital and Institution on the Growth of Economics from 2000 to 2015**

| | Average Per Capita Yield | Average Per Capita Capital | Average Change of Institution |
|---|---|---|---|
| Actual Growth (%) | 4.5935 | 4.4733 | 0.3404 |
| Perimeter | | 0.480666 | 3.310900 |
| Contribution to the Growth of Yield | | 2.150163 | 1.127030 |
| Contribution Proportion (%) | 100 | 64.4159 | 33.7642 |

According to the calculation, it shows that from 2000 to 2015, the average contribution of institution on economic growth is 33.7642%. In other words, institutional change has an important promoting effect on economic growth. Then it calculates the contribution of transaction costs, ownership and marketization on institutional change. It shows that from 2000 and 2015, the average contributions of these three indexes to the rate of economic growth are 10.2420%, 11.9939% and 11.5283% respectively. As a conclusion, the three institutional changes have huge promoting effect on economic growth.

## CONCLUSION AND POLICY RECOMMENDATIONS

According to the analysis above, institutional change has an important promoting effect on economic growth in China. Specifically, from 2000 to 2015, the average contribution of institution to the economic growth reaches 28.4646%. And among different institutional indexes, the change of ownership promotes most of economic growth. It represents the activities of the non-state economy in China, which explains the 10.1113% of economic growth on average. The second one is marketization, including the activities of the private economy in China economic, the relationship between domestic market and the international market and a series of rules and regulations, such as the patent protection system. It explains the average 9.7189% of economic growth. And the last one is the increase of transaction cost. It represents the increase of professional division of labor and exchange in the private sector. And it explains 8.6344% of the average growth. Therefore, every institutional factor has great contribution on economic growth, and still there are a lot of potential. It can thus provide more momentum to the future economic growth in future. According to the analysis above, this paper puts forward the following suggestions:

**a) Improve the Efficiency of Economic Growth and Lower Transaction Costs**

The increase of transaction costs shows the development of the specialized division of labor and exchange in the private sector. In addition, it also shows that there is still great space to improve in the efficiency of economic growth in China. At present stage, the growth of the transaction cost has not hindered the development of the economy in China. However, it should still be limited in the range in which the increase of social transformation marginal efficiency is greater than that of the marginal transaction cost. Therefore, on the one hand, the domestic market should improve the degree of opening-up to the international market to promote the improvement of the quality of the economic. On the other hand, it should speed up the structure transformation of the domestic economic. The former one can be processed by introducing the foreign direct investment and foreign advanced technology and giving full play to the knowledge spillover effect. The latter one can promote the virtuous circle of economic development and upgrading of related industrial.

**b) Cultivating Non-state-owned Economy and Improving the Quality of the Economy**

The increase of the share of non-state economy in China economy definitely is the dynamic source of economic growth in the future. However, there are many problems of the non-state-own economy for a long time. For example, the private enterprises lack of innovation awareness and social responsibility consciousness. The capital of the foreign capital enterprise is often less than their debt. In order to tackle with this problem, it should promote the independent innovation ability of private enterprises by enhancing the capacity of independent research and mastering of core and key technology instead of relying on the advanced foreign technology. The government should also provide certain supporting policies to the new and high technology industries. On the other hand, for the foreign capital enterprise, it shall cancel the restrictions, encourage fair competition and vigorously develop the establishment of free trade area.

**c) Improving the Rules and Regulations of Market and Releasing the Dividends of Reform**

According to the indicators of the marketization, a well-developed market system plays an important role in promoting the long-term healthy development of the economy, including internal economic activities, the smooth progress of foreign trade and the establishment of a series of security system. The marketization reform in China has made great achievements. However, there still exist many problems in the marketization process, especially the production elements market and legal environment system has become the key points in the

market-oriented reform in China, which has been shown in the indicators. Therefore, the government should set up a complete market legal system, promote the reform of marketization, reduce the government's intervention in the market and rely on price volatility to adjust supply and demand. It can thus release the dividend of China's reform and opening-up and achieve the goal of steady and rapid economic growth.

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