



From American Westward Movement to  
Chinese Western Development  
----- General Analysis of Relationships between Institutions and  
Economic Development as Well as the Enlightenment for China

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**Abstract**

This paper starts from the description of the concept and importance of institutions. Then it takes American Westward Movement as an example to illustrate in details about the relationship between institutions and economic development as well as the significant influence that institutions exert. After analyzing the current institutional obstacles (the lagged-behind government functional system and market system, and the super sticky institutional change) that stand in the way of the Western Development Program in China, this paper finally puts forward several practical approaches to improve this situation according to the theory of system innovation. (The additional statistical analysis better proves that the innovations on institutions did improve the average standard of living and comfort level of local citizens.)

**Keywords:** Institutions, Western Development Program, American Westward Movement, Institutional change, System innovation

**1. The institution concept and its importance**

Veblen, T., a founder of institutionalism, thinks that institutions are the stable and common thinking habits for most people. Commons, J., another founder, defines institutions as group activities that control, liberate, and expand human behaviors. North, D., a representative of new institutional economics, regards institutions as social game rules designed by people and also a mechanism that drives the interaction of politics, economy, and society, including formal constraints and informal constraints. The former includes political rules, economic rules, and contracts. The later includes values, ethics, customs, and ideologies (the core is ideology). Coase, R.H., from England, thinks that because of transaction costs, institutions will affect the efficiency of resources allocation. Market malfunction may happen but can be solved by certain institutional arrangement. The production arrangement and its reform centered on property right system and contract system usually drive or obstruct the modernization process. Economic modernization is institutional modernization.

Therefore, institutions may come into being in social members naturally or be constituted by special groups. Institutions include a series of rules, procedures, systems, and groups' internal cultures. The purpose of institutions is to coordinate and guarantee the coherence of social members' behaviors and restrain the relationships between internal groups and the exterior. Both the inner natural effect and the outer enforcing effect contribute to the realization of institutions. Institutions are characterized with coordination, enforcement, and rigidity.

Because institutions are capable of decreasing transaction costs, cultivating economy of scale, driving internalization of externality, and offering guarantees for people's activities, institutions determine the incentive mechanism, social transaction costs, fair allocation, and conflict solution. Therefore, institutions bring about orders and stability for complex and uncertain economic relationships. Perfect institutional system exerts vital effects and impacts on economic development.

**2. The experiences and lessons from American Westward Movement in the establishment of institutions**

According to international experiences, by developing undeveloped regions, countries with large areas can enlarge economic development spaces, explore wider markets, drive optimization of industrial structure and adjustment of products structure, and improve overall national strengths effectively. The most typical representative is American Westward Movement. It is a large-scale migration and colonization movement driven by government institutions based on pure capitalism. The rise of American West offers rich experiences and profound lessons for the development of other countries, including the undeveloped regions in developing countries.

### *2.1 What the valuable experiences we can get from American Westward Movement*

In a sense, without participation of American government, constitution and implementation of relevant policies, it is impossible to develop the expansive western land in such a short period.

(1) American Westward Movement takes large-scale migrations and transportations as the base

In order to drive American Westward Movement, the federal government carried out the free migration policy, encouraging foreigners to move in America. Besides, an unprecedented trans-regional migration happened in America. From 1790 to 1910, the population center moved 557 miles westward, yearly 4 miles in average. During regional development, giving priority to transportation development affected American Westward Movement and national economic growth profoundly. First of all, transportation enhanced regional specialization of western economy. Secondly, transportation drove the form of unified national market. Finally, transportation facilitated western economy as well as national economic growth.

(2) Take commercial and private capitals as main investment resources

The transportation development policy attracted amounts of private capitals for the construction of western transportation system, which directly influenced the progress of Westward Movement. It was the land speculators, the poor, and the planters who pushed American Westward Movement. Their investment funds were mainly from commercial and private capitals. A majority of funds for American Westward Movement were acquired by marketization and commercialization. That is an important character of American Westward Movement.

(3) Push agricultural development energetically

In 1784, 1785, and 1787, the federal government made up three land acts respectively, establishing three principles of dealing with western lands for the first time in American history. In 1862, Lincoln government issued the Homestead Act, arousing people's enthusiasm for the Westward Movement. To strengthen agricultural management as well as agricultural technological research and popularization were also important policies constituted by the federal government for the Westward Movement. In 1862, American government founded the Ministry of Agriculture to direct the development of western agriculture. In 1887, it set up agricultural experiment management bureaus and employed many agricultural scientists for special researches. Besides, it tried hard to popularize mechanization. Many state governments founded lots of agricultural and relevant colleges and institutes on the lands endowed by the federal government, cultivating kinds of talents for Westward Movement.

(4) Guided by economic integration, the Movement benefited from the effects of government and market

American Westward Movement basically realized the market unification and economic integration between the west and the east, gradually shortening the economic gap, and pushing the coordinative development of regional economy. Till late 19<sup>th</sup> century, a basic economic pattern with economic specialization, primary market unification, and complement economy between the east and the west in USA came into being: The Great Lakes Region in the northeast became the largest manufacturing zone in the world; The Midwest was the largest grain production and distributing center in the world; and the west remote mountain areas provided irreplaceable mines in USA.

### *2.2 Lessons from American Westward Movement*

(1) Ecological environment suffered from grave damages

In American Westward Movement, because of the predatory nature of bourgeois and the indifference of federal government, ecological environment suffered from long-lasting damages in a large scale. Forests, soils, and biological resources were ruined thoroughly. In explorers' opinions, America had unexhausted resources. They focused on explorations but not cared about conserving resources. Considering the ecology, American economic development was at the price of environmental damages and even irreparable losses for certain regions.

(2) Expel, plunder, and slaughter Indian

Almost all people who moved toward the west stepped on Indian bones and blood. Because Indian fought back, the year 1876 witnessed a brutal war suppressing Indian. Afterward, batches of miners run into the mountain areas. Numerous suppresses led to a sharp decrease of Indian population.

(3) Land speculation and land monopoly made farmers suffer from heavy burdens

The imperfect land policies broke the coherence of land acts and caused large-scaled land speculation and land monopoly. As a result, most properties were controlled by land masters on one hand. On the other hand, farmers suffered from heavier burdens. But we should know that land speculation, as a way adopted by bourgeois in American Westward Movement, benefits primitive capital accumulation.

### **3. The institutional obstructs in front of China Western Development Program**

The "three-step" strategy advanced by Xiaoping Deng allows and encourages some regions and some people to become rich firstly, by which driving the overall development, and gradually achieving the ultimate socialist goal ----- common

prosperity. He also put forward the “two overall situations” thought. One overall situation is to expedite the opening process and develop the east seaside regions first. Then, after a period of development, the east should help the Midwest expedite the development. That is also an overall situation. At the turn of the century, in order to achieving the “three-step” strategic goals, President Zemin Jiang advanced the Western Development Strategy based on China’s overall situations, advocating to construct a new west region with prosperous economy, social progress, stable life, united nations, and beautiful sceneries during decades of years or even the whole 21<sup>st</sup> century. As the Western Development Program has been carried out for eight years, the state kept in offering financial support for infrastructure construction, ecological environment protection, and social economic causes in the western region. The west has already achieved fast development. However, some institutional problems obstruct the western economic development. In specific, they are:

### *3.1 The lagged-behind government function system in western regions*

In many western regions, local governments are arranged unscientifically and have grave overlaps. Multiple managements are still common. Local governments play not only as judges but also as athletes in economic operations, and behave terribly. No institutions ensure the government to act following a scientific and rational way. In other words, the functional confusion and inefficiency of western governments are originated from the lagged-behind government function system.

### *3.2 The lagged-behind market system in western regions*

Western economic operations, from the production to consumption, lag behind the east. In many regions, economy operates in an explicit market with implicit plans. In the aspect of constructing a socialist market economy system, the west and the east start at the same time. But after nearly ten years’ development, the market system in western regions is far behind that in the east. The lagged-behind market system inevitably results in low efficiency of economic operation, which will lead to governments’ blind interference. That is a vicious circle. As a result, government functions become more confusing and market mechanism can not exert its effectiveness completely.

### *3.3 The super sticky character displayed by supply-and-demand relationships in western institutional changes*

Institutional changes mean to break up primary institutions in the forming and amending institutions due to time changes. The closeness of western regions makes it impossible to realize institutional changes internally. Because of poverty, lagged-behind transportation, undeveloped logistics, poor information communication, and difficult exchange between inside and outside, the west have to spend more in institutional innovations, which reduces chances of profitability in a sense. Therefore, informal institutions, such as customs, work for a long period. That seriously obstructs regional technological progresses on one hand. On the other hand, it strengths the super-stable equilibrium of informal institutions. Besides, the institutional changes in western regions have prominent path dependence. In analyzing the “path dependence”, Professor North thinks that there is a wage increment and self-reinforcement mechanism in institutional changes. Its predetermined direction will achieve self-reinforcement in next development. If the primitive direction is correct, institutional changes will follow a virtuous circle. If the primitive direction is not exact, institutional changes may walk into a wrong way and even be locked in an inefficient state. Institutional changes have to take market maturity degree, industrial structure, economic strength, and government functions and performances evaluations into consideration. These conditions are also factors of institutional path dependence in western regions.

## **4. Feasible approaches based on institutional innovations (with data analysis in appendix)**

Institutional innovations are significant institutional changes. Institutional innovation subjects are people who start and join in institutional innovations because they can precisely predict the extra return generated by institutional innovations. North and Thomas think that institutional innovations are the fundamental reasons for modern economic growth. To construct institutions aims at reducing transaction costs, shortening the distance between individual income and social return, encouraging individuals and organizations undertake production activities, and achieving economic growth. If a society can not realize economic growth, it means the social institutions are incapable of guaranteeing what innovative subjects had expected to return. Considering China’s Western Development Program, institutional innovations include:

(1) Some institutional variables, such as the level of non-nationalization, the degrees of marketization and opening, are significant factors that determine regional differences of economic growth during the transition period. In order to shorten and reduce regional differences of economic growth, expediting western development, an effective choice is to emphasize on reforms and institutional innovations, aiming at improve the ability of using market opportunities, expand the levels and degrees of opening, and develop non-state economy. Construct and perfect the factor markets, including labor market, capital market, and technology market. Deepen the reform of price and circulation system for western agricultural products. Enhance the specialization of regions and make the west exert its comparative advantages.

(2) Improve regional legislation and keep coherence of policies. Compared with regional policies, regional legislation has stronger institutional coordinative function. According to experiences from foreign countries, a series of regional policies, including key projects supported by regional finance, are all based on these laws and regulations. In England, the primitive regional policies were from the “special regional act”. Then, its regional policies developed together with

a series of activities related with legislation on the whole. The former federal Germany extremely stressed the legislation of regional policies. China's Western Development Program should be guaranteed by a series of detailed laws and regulations.

(3) Expedite changes of western informal institutions, and encourage individuals and organizations make institutional innovations. Because of geographical location, the social culture in the west has been restrained in a closed environment for a long period. So, the west can not immediately accept new outer things and information easily. Therefore, we should try our best to improve the education, science and technology levels, construct an opening labor circulation mechanism, and enhance information engineering. Those are important ways for expediting informal institutional changes, improving the compatibility of formal rules and informal rules in institutional changes. In addition, it is the government who serves as the subjects of western institutional changes. However, the institutional changes driven by administrative forces can not help the west dig out its potential interests, what leads to an institutional supply "bottleneck". Therefore, as we try to adjust property relationships, we should encourage state-owned and non-state economic organizations, local governments, and individuals to make institutional innovations, satisfying institutional services, and breaking up the institutional supply "bottleneck".

### 5. Enlightenment and conclusion

To sum up, rational institutional system is vital for national economic development. Besides American Westward Movement, more experiences from other countries show that only sufficient financial support for undeveloped regions but without institutional changes can not result in satisfying development. Take Italy for example. After the World War II, Italian governments input amounts of materials and capitals in the south. But the south still has a great distance from the north in economic development. In essence, it is the incomplete institutional reform that obstructs social and economic progresses from many aspects. All countries that reached better achievements in developing lagged-behind regions stress on regional institutional improvement. For example, Spain took advantages over social reforms in developing lagged- behind regions, by which the industrial structure, capitals, and organizations are more in accord with modernization. British government removed limits that harmed regional economic development in supporting undeveloped regions, gradually constructing new energetic economy there, and improving its attractiveness to capitals and skilled labors.

Therefore, the key to drive western development is to improve the opening degree, change traditional thinking, create a loose policy environment, promote governments and economic management bureaus' services and efficiencies, make the west exert its advantages completely, and attract more capitals from the east or the abroad. If western institutional changes lag behind and market economy can not develop well, the beneficial policies for the west and transfer payment will turn into approaches of safeguarding backwardness.

### Appendix

Data analysis demonstration and explanation ----- effects of institutional changes on people's living standard

In order to research whether a series of changes of market, laws, and social institutions impact people's (considering the large distance between counties and cities and the fact that rural population accounts for more than 70% of total western population, here we take rural population as the representative) living standard significantly since the Western Development Program, especially after the "tenth five-year" plan. Here, Y means the per capita income of rural population. X is the per capita GDP of 12 provinces in the west. Analyze the effects of GDP on rural population's income quantitatively.

Data in the next table:

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Per capita income of rural population	2290.9	2352.5	2403.7	2496.4	2608.2	2718.3	2836.7	3196.0	3646.0	4223.1
Per capita GDP in the west	3960.7	4212.2	4444.9	4778.9	5101.0	5753.8	6565.2	7950.2	9126.4	10194.3

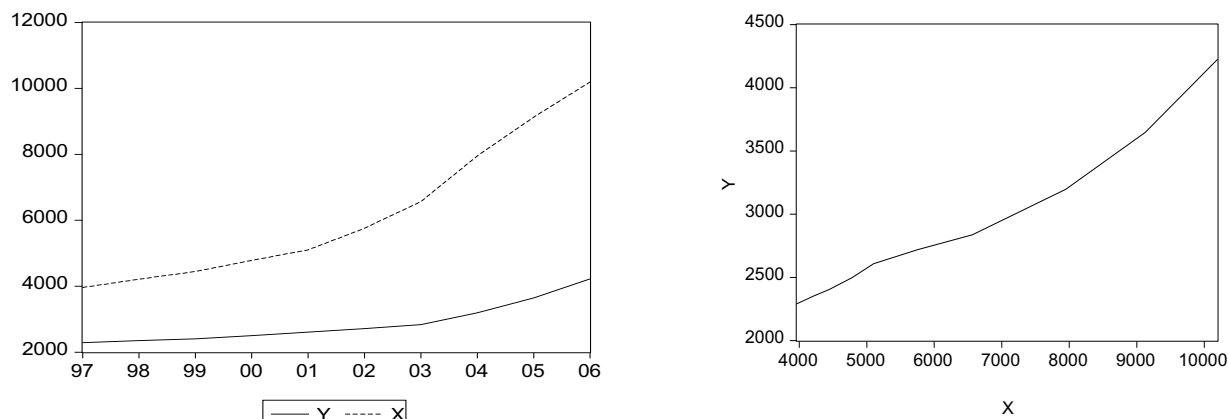
Resource:

(Unit: RMB)

China Regional Economy Statistic Yearbook. China Statistics Press.

China Yearbook of Rural Household Survey. China Statistics Press.

In order to study whether the law that reflects the effects of economic yield on rural residents' income along with changes of GDP in recent ten years or not, we research changes of rural residents' income and GDP along with time changes. See figures as follow.



In the two figures we find out similar phase characters. The year 2003 is an evident turning point. introduce the following virtual variable model.

$$Y_t = \beta_1 + \beta_2 X_t + \beta_3 (X_t - 6565.2) D_t + U_t$$

Here,  $D_t = 1$ ,  $t$  means the time after 2003

$= 0$ ,  $t$  means the time before 2003 and the year 2003

Make regression as follow:

Dependent Variable: Y

Method: Least Squares				
Date: 03/05/08 Time: 12:36				
Sample: 1997 2006				
Included observations: 10				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1593.011	164.5952	9.678354	0.0000
X	0.185528	0.032093	5.780893	0.0007
(X-6565.2)*DUM	0.174623	0.052877	3.302425	0.0131
R-squared	0.988109	Mean dependent var		2877.180
Adjusted R-squared	0.984712	S.D. dependent var		631.7219
S.E. of regression	78.10992	Akaike info criterion		11.79744
Sum squared resid	42708.12	Schwarz criterion		11.88821
Log likelihood	-55.98718	F-statistic		290.8418
Durbin-Watson stat	1.459290	Prob(F-statistic)		0.000000

$$Y_t = 1592.011 + 0.185528 X_t + 0.174623 (X_t - 6565.2) D_t$$

$$se = (164.5952) \quad (0.032093) \quad (0.052877)$$

$$t = (9.678354) \quad (5.780893) \quad (3.302425)$$

$$R^2 = 0.988109 \quad \bar{R}^2 = 0.984712 \quad F = 290.8418$$

Because the  $t$  of very coefficient is bigger than 3, it means the coefficient of independent variable is not equal to 0 significantly. The regression model of per capita income of rural population is:

$$Y_t = 1592.011 + 0.185528X_t + \varepsilon_1 \quad (1996 < t \leq 2003)$$

$$Y_t = 2738.44592 + 0.360151X_t + \varepsilon_2 \quad (t > 2003)$$

Therefore, studies show that along with the implementation of Western Development Program since 2000, western people's, represented by rural residents, living standard has been improved in general. Especially the issue of a series of policies and measures for the sake of driving institutional changes benefits western people to a great degree. The year 2003 was a turning point. Since then, the government began to emphasize on the western state-owned enterprise reform, the strategic adjustment of state-owned economy layout, the construction of modern enterprise system in state-owned large and medium-sized enterprises, and the shareholding system transformation. Enterprises' capital structure is optimized further and lots of leading enterprises successfully list in market. Up to now, non-public economy has already accounted for 31.4% of total production value. Rural taxation reform works well, exempting agricultural taxes comprehensively, starting many rural integrated and coordinated reform pilots, and the reform of grains circulation mechanism achieves breakthrough progresses. An investment pattern with multiple investors comes into being. The reform of administrative approval institution tends to be more effective. And the reform of financial management system gains new achievements.

Apparently, if we want to further improve western people's living standards and qualities, we must persist in promoting development by reforms, taking institutional changes and institutional innovations as important drives for development. Make non-public economy exert important effects on western national economy. Deepen the investment system reform further and prevent lagged-behind government functions and market as well as break the super stick character of western demand-and-supply relationship. Enhance the reforms on science & technology, education, culture, sanitation, and residential house.

In sum, we should try our best to carry out a series of approaches for institutional innovations, such as developing market economy, improving regional legislation, and expediting informal institutional changes, and take references from other countries' experiences and lessons in institutional innovation, which will inevitably help us to build the west into a beautiful and prosperous region.

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