



The study of market-oriented reform and recommendations of the water sector

Shu Hui and Li Wei

School of Business Administration of Jiangxi University of Finance & Economics, Nan Chang, Jiangxi, P. R. China

ABSTRACT

As the water industry has led to inefficient monopoly, the market has become an inevitable trend in the water industry. Carrying out market-oriented reforms, we should adhere to three principles, namely focusing on the public interest, the Government funds in the investment structure irreplaceable, and balance between efficiency, equity and stability. In the market-oriented reforms often encounter the following impediments: the conflict between the new and old systems, dispute the right of the departments, price increases experienced public resistance. Learn from the successful experience of foreign countries in the basis, we proposed recommendations, specifically including improvement of relevant laws and regulations, strengthen water administrative reform, continuing to promote diversification of property rights reform, promoting investment and financing system optimization.

Keywords: water; market; suggestion

INTRODCUTION

1. IDEAS OF WATER INDUSTR MARKET REFORM

1.1. The principle of market-oriented reform of water sector

Market-oriented reform of tap water should be integrated many of the actual situation, such as the political system, the reform of the background, the economic base, target mode, so our water industry during the market-oriented reform should follow the following principles.

(1)Market-oriented reform of public interest cannot be weakened

Urban water industry's most significant and fundamental characteristic is its public nature. Utilities provide the most basic urban services, related to the vital interests of the masses, which is the basic requirement of urban public utilities reform. Essentially, the market is located in the program is only available between pure public goods and pure private goods on mixed items. Therefore, the market is "limited market." For the livelihood of the core public goods can only be provided by the government, which is composed of public nature, public, nonprofit, and government authority institutional advantages of public goods(Yu,L.and Li,Y.,2006). "Service can be outsourced, but it cannot govern." Socialist nature also determines the scope of China's market-oriented solutions that can be implemented to be narrower than in Western countries, so privatization is to maintain public ownership under the premise of limited privatization, and the contract rent is only suitable for the same services at the edge of the field. Urban public utilities and continuity of our production costs and production and living life, convenience is closely linked, which has a strong spillover effects. This requires that the primary objective of reform in this area should not be to alleviate their financial burden or get some kind of executive powers for myself, nor should be to provide new areas of development of private capital or foreign capital, but the public interest(Zhou,X.M.,2007). This is the

community to provide reasonable price, good quality and sufficient quantity of a stable and secure supply of public goods, providing common conditions for economic and social development, thus contributing to the overall increase in social economic efficiency and social welfare.

(2) Government funds in the investment structure irreplaceable

In many countries are the main source of funding the construction of the water industry, and its role can be divided into the following areas: ① the rapid economic development stage, can play a role in stimulating domestic demand; ② through policy interest loans and other financing instruments, to guide private sector investment in water sector; ③ through the use of government funds to fund act as a "seed money" role, while establishing credit level of borrowers, to provide the necessary guarantees; ④ reduce financing costs; ⑤ to play the role of social responsibility, including balanced regional differences and narrow the wealth gap; ⑥ play a role in the healthy subsidize the price mechanism. Finally, from a practical point of view, subjective and objective state-owned water industry is not required to withdraw from the field, the reason is that: first, the water industry is seen as a sunrise industry, which has been living in and through the restructuring of state-owned water and sewerage companies will not opt out of their own; second is to play a guiding and stimulating role, the government is still making new investments; third, the water industry as an important relationship between the people's livelihood, the government will not easily be determined to make state-owned all exit. Thus, China's water industry should be a state-owned, private capital and foreign investment go hand in hand in the situation, but in a fairly long period of time will be the dominant state-owned assets.

Therefore, the investment structure of China's water industry should be a state-owned, private capital and foreign investment go hand in hand in the situation, and for a long period of time will be the dominant state-owned assets.

(3) Balance between efficiency, fairness and stability

Urban water industry is a necessity, with the consumption of "non-repudiation", even if the price must be higher consumption. From the perspective of the government economic point of view, the essence of the utility market is produced by the private sector and the provision of public goods. Therefore, it cannot hold anything against the poor and love the rich, and it should continue to adhere to the principle of universal service. The principle of universal service refers to the utility operators to provide some to meet the basic needs of life and the development of services to all residents, which should be able to universally affordable prices. Such universal service "national treatment", if for consumers, is entitled to all kinds of daily necessities; if for government, but also the fundamental values of public policy objectives. Since the implementation of market-oriented government to provide public goods and services functions entrusted to a private enterprise, so it has become an obligation and social responsibility of private enterprises must fulfill. The main responsibility of the government is to meet society's demand for public consumption. Principles of the market are seeking to maximize the economic benefits. However, this is difficult to reconcile the two aspects will lead to contradictions. Government can guarantee social benefits as entrusted with the operation conditions to implement contract management. Therefore more need to strengthen market regulation and industry self-regulation to prevent irregular operation, to ensure social benefits. Fair compensation for a uniform price policy and market pricing reform-oriented, can give investors the real return or return expectations. So, during the city's market-oriented reforms in the water sector, the government must consider the economic and political considerations together, focusing on political considerations. Market-oriented reforms must be combined with the government's own revenue operators and consumers (citizens) of the three, and focus on the people (citizens). Market-oriented reforms must be short-term gains and long-term effects of reforms to combine and focus on the long-term interests. Market-oriented reforms must be fair and efficient to combine a focus on fairness. So not only improve the efficiency of operation of the water industry, and safeguarding the fundamental interests of the masses.

2. WATER INDUSTRY MARKET- ORIENTED MODELS

Under the reform of state-owned enterprises to further accelerate the field of public facilities and the full liberalization of investment regimes in the background situation, the water industry from the last state-owned monopoly to gradually implement market-oriented operations. Meanwhile ownership structure change from a single state-owned investment subject to the diversification of investors (Wang, L.S., 2008). This change stems from the inevitable requirement for water companies to optimize internal resources, improve work efficiency and improve the management level, and truly establish a modern enterprise system. Privatization of the water industry, or market-oriented reforms, the essential thing is the investment and financing market and socialization. The main pathway is a franchise that is open to the public by tender in the form of water supply companies selects business units, authorized to operate by the government. Specifically includes the following manner.

2.1. BOT (Build - Operate - Transfer)

BOT is the main form right through the construction and operation rights transfer to attract incremental funding. China's first state-sanctioned by the urban water infrastructure BOT projects in Chengdu, Liu Chang B water plant, through tenders by the Chengdu Municipal Government and the French general-purpose water and Marubeni consortium signed a cooperation agreement (Hou, F.Y., 2009). Among them, 106 million of construction funds rose by the foreign beauty, the 18-year term of the agreement, the foreign company owns, operates and maintains the infrastructure projects, while achieving the Chengdu Municipal Government promised a 12% profit margin by charging water. 2020, ownership of the project it will be transferred to the Chengdu Municipal Government.

2.2. Joint Venture Mode

Typical examples are mainly joint venture mode Baoding and Fengxian. Baoding Water Company will have built a water plant at a price of 200 million yuan and sell 90% of the property, a joint venture with Hong Kong Sino-French Water Company water, and in June 5, 2000 began formal operations. Agreement: Cooperation of 20 years after the expiration, water rights and management rights owned by Baoding. In 2001, the French water company Zhaohe Water and Fengxian third water worked together to set up the first Sino-foreign cooperation in Shanghai Showa Water company.

2.3. Direct Acquisition

Direct acquisition mainly refers to foreign direct tap into China market. May 2002, Shanghai Pudong Water Company transferred 50% of state-owned shares in Vivendi premium, Vivendi provided 20 billion in cash (asset valuation price nearly three times more than the price) on the Shanghai Pudong water company mergers and acquisitions (Xia, C.X., 2010). Vivendi is also committed to the joint venture is not to lay off 1,582 employees, ensuring the provision of high quality water than existing standards and conditions for the government to maintain uniform pricing, the first foray into the water supply network.

2.4. Pure Private Mode

Purely private model is relatively rare in the water industry, such as Inner Mongolia Yuanhe Group companies invest in Tuoketuo County Water Supply Project. Yuanhe Group invested construction projects, including the construction of an area of 25,500 square meters of water purification plants, a 8.3 km of the main water pipeline and a water distribution station. The total investment is 59.6 million yuan. After the project is completed, the daily water supply will reach 40,000 cubic meters. After the project is completed, the daily water supply will reach 40,000 cubic meters.

2.5. TOT (Transfer - Operate - Transfer)

TOT refers to government investment projects in a given period paid transfer to non-government investment entity operates, the government recover funds can be used for the construction of new infrastructure, and ultimately have ownership of projects. TOT refers to government investment projects, in a certain period of non-government investment paid transfer in the main business, but this form of government through the construction of new infrastructure, and ultimately have ownership of projects. Currently, Jinan, Qingdao and water supply enterprises in Handan TOT investment projects, however, the specific TOT has entered the implementation phase of the project has not yet seen.

3. RESISTANCE FACTORS ANALYSIS MARKET REFORM

Central and local governments are continuing to explore and deepen the internal reform of urban water industry sector. Currently industrialization, mercerization and gradually become the main direction of development of China's urban water sector and it is already substantial on the agenda (Feng, L. and W, Zheng., 2009). We can say that the market urban water industry is the inevitable choice of China's urban water management. However, the current development of China's market-oriented water industry is also faced with tremendous pressure and resistance. These obstacles are mainly reflected in the conflict between the old and the new system, the rights of the battle between departments, and public resistances to price increases. Moreover, the debate about whether China urban water sector to go the way of the market also affects the part of the city government's decision.

3.1. Conflict Between The New and Old Systems

Market is a revolutionary urban water sector reform in the face, while the conversion of different subjects under the old system to progressive realization. In the old system of alternating periods of vested interest groups who tend to

be the largest to stop the reform process, while urban water industry is no exception. In order to promote water industry market process, the central ministries are actively corresponding policies require separating. However, the local construction sector and the traditional water business are as vested interests, always trying to delay or even distort the market process. For example, although the decentralization of the Ministry of Construction of the right, but there are a lot of phenomenon that local construction sector remains the government to pre-empt.

3.2. The Rights of The Battle Between Departments

Power disputes, rights and responsibilities are not clear of the water sector has been restricting the reasons behind the management system. Rights disputes in different sectors are very serious "friction", which also hindered the healthy development of the water sector of the market.

3.3. Public Resistances to Price Increases

In the process of water industry markets, "water" from the previous "public welfare water" transforming itself into a "commodity of water", so tariff adjustment to become one of the highlights of market reform. At present, China is the basic status of the water tariff price is too low, and the water industry is also faced with the risk that investment income may not support basic tariff revenue. The current trend of China's tariff policy mainly lies will further increase the proportion of water resources fee. And will gradually develop into a tax, water charges are not included in the price of water hearing system.

In addition, sewage treatment and collection fees will further place. 2002 implementation of the sewage treatment fee system in the city, the highest fee is Suzhou, Changzhou, are 1.15 yuan / ton, which has reached the level of full cost. Ningbo, Nanchang and other cities 14 minimum fee of only 0.10 yuan / ton, which is sufficient to cover operating costs (about 0.50-0.60 yuan / ton) and 68.2% of China's average sewage treatment fee.

Nanjing: 2003 program of price increases at the hearing was not adopted.

Shanghai: People's Congress also raised the price of water to rise against the proposal, resulting in delays in Shanghai implement tariff reform measures implemented. Shanghai is an important reason for this is the low price of water in large cities.

Beijing: Municipal Development and Reform Commission in early June 2004, held a hearing on the question of price increases will, but under pressure from many, the price ladder originally scheduled for July 1, 2004 implementation of the delayed execution.

4. THE OVERVIEW OF FOREIGN MARKET REFORM WATER INDUSTRY

Since the late 1970s, under the impact of the concept of a free economy, the privatization of public utilities has become a common global trend. Private range includes almost all levels of government functions and industries, from industry, agriculture, mining, services, until the police, defense industry, social welfare and public utilities. The purpose is to hope that through privatization after privatization and the introduction of a corporate philosophy of play, reversed the poor performance of public utilities and severe loss situation.

Historically, before the 1990, almost all water industry in developing countries by are operated by the government. In the 1984-1990 years, the world's only 8 \$ 290 million from the total value of the water industry privatization cases. Although, from 1991 to 1997, the water industry since privatization cases to 97, the total value reached \$ 25 billion, but basically many countries still regard social attributes than economic attributes of water. Privatized water industry is still relatively low degree, compared with other utilities privatization (Luo, Y., 2007).

Compared with the privatization of public utilities, such as gas, electricity, telecommunications, the number has a big difference. The first reason is the monopoly characteristics of the water sector; the private sector is difficult to operate by the introduction of market competition mechanism. Although the water quality and safety related to public health, but it is difficult to determine the water quality is good or not for the people, and the private sector to provide water testing reports are still government rechecks. Price and quality regulation costs after may be higher than the privatization of profit that the government takes the necessary water industry privatization engaged and therefore the government may prefer to choose their own operations in the industry.

Another impact of the government's determination to promote the privatization of the water industry is to ensure the fairness issue. There are three indicators available for verification, whether fairness is implementing water industry after privatization:(1) continuing to improve water supply coverage, including secure access to tap water and convenience;(2) whether the price of water to make the general public can afford, whether mechanisms exist to provide assistance for those who cannot afford;(3) whether there is public participation in decision-making services. This three indicators before the water industry to promote privatization must have proper planning, so they are not derived from social problems after privatization.

In addition, the way of privatization is also an important factor when the water industry shifted from the public sector to the private sector need to be considered. The public and private sectors on how to locate the role after privatization, industrial restructuring, regulatory framework, the expected profitability of private enterprises, and even social, political and economic environment will influence the choice of privatization methods. Privatization improper way, except to make the original goal of the pursuit of performance improvement greatly reduced, but also often increase the re-negotiation costs in the future between the public and private sectors.

5. MEASURES OF WATER INDUSTRY MARKET REFORM

Ministry of Construction to promote market-oriented reform of water sector has three main goals. The first is to solve the problem of inadequate investment to meet the rapid development of urbanization in China and the huge demand for the construction of municipal facilities. The second is to introduce competition, improve efficiency, reduce costs and provide better public goods and services. The third is to transform government functions through reform government truly representative of public service functions. Around these three objectives, the water industry promotes the market-oriented to strengthen the following aspects.

5.1. Improve Relevant Laws and Regulations

Comprehensive legal framework can reflect the degree of rigor and maturity of a government. Governments need to set up a goal to the provisions of the laws and regulations in different chapters and finishing together. Such as the Asian Development Bank proposed to set up the system of laws and regulations related to the water industry. To achieve this goal, we can build a dedicated team, which continued to collaborate with all relevant government departments (An, F.D., 2011). Meanwhile, regular communications with relevant government departments are also key to achieve this goal.

5.2. Promote Water's Administrative Reform

At present, the domestic water supply on administrative reform, there are three opinions. The first is "to maintain the status quo on." In this view, the current division of governance structure can effectively keep the balance of power, As long as the water sector is not a single large. The second is the Ministry of Water Resources has been pushing the Water mode. The third is considered to be divided into three steps. During the transition phase, specifically coordinate overlapping functions and conflicts of interests of various sectors wading by a vice premier. Then cancel the current Ministry of Water Resources, and establish Water Resources Coordination Committee in the State Department to coordinate management of water affairs. Finally, the committee stripe all the functions of the former Department of wading and specializes in integrated water resources planning and unified management.

We prefer the third option. Such programs tend to avoid to the greatest degree of "national benefit to be sectoral, the rights of the battle between departments and maximize the benefits of personalized individual". In any case, the reform should comply with two principles. One is to rationalize the administrative system from top to bottom, then all the water affairs eventually reverted to a sector management; another is the government should try to do public affairs separate and separating the interest t have to remove the color that it should not have.

5.3. Continue to Promote The Reform of Investment Diversification

We need to continue to improve the government's investment diversification as the main mode of operation. In July 25, 2004, "Decision on Reform of Investment System" issued by the State Council pointed out "Allow social capital into the laws and regulations did not cut into the infrastructure, public utilities and other industries and fields." Further clarify encourage and guide enterprises of various ownership participation in the operation of public welfare and infrastructure. Encourage and guide social capital to sole proprietorship, joint venture, cooperation, joint venture, project financing, etc. to enter. Involving state monopoly resource exploitation requires unified planning of the project. After construction plan after the government determined that the Government may tender to the public owners of the selected item.

5.4. Promote Investment and Financing System Optimization

Water supply and drainage network, sewage treatment plants and other water infrastructure mainly rely on local government municipal bonds, debentures or sewage water in the form of bonds and other public institutions to raise capital construction in the United States, Germany and other developed market economies. China is now the policy does not allow local governments to issue bonds, the government should actively study by municipal or tap water revenue bond financing. We can launch relatively standardized local municipal or corporate bonds to tap corporate earnings as the primary mode of corporate finance water. Based on the above analysis of financing, taking into account the economic profitability and social environmental benefits of urban water environmental infrastructure projects, etc., we can consider the following financing model. First, we can use the international lending facility. Secondly, we have the choice of project financing in the form of cocoa. Again, we can choose the urban water environment infrastructure funds and municipal bonds. And finally we can consider corporate bonds, commercial bank loans(Chen,H.,2012). Thus, it can promote the body in the field of financing environmental infrastructure diverse urban water situation as a whole.

To promote investment and financing system to optimize, we need to focus on two important issues that are pricing mechanism and identify good practice management system. After years of exploration and institutional arrangements for policy changes, China's water industry financing system has kept pushing forward. However, we still need to continue to make breakthroughs and innovations in practice. The three cases of Vivendi Pudong Water Company, Shenyang, Chengdu sixth eighth Veolia Water Works water basically reflects the urban water market in China is currently in the process of the problems. Although the results of the cases are different, all of them reflected the missing of the Government's commitment. Therefore, we need effective institutional arrangements for the contracting parties to implement effective economic behavior constraints and incentives. In the system we can choose reasonable contractual arrangements to achieve Pareto efficiency. Outside the system we need to create a new institutional arrangement to achieve efficient allocation of resources is maximized.

REFERENCES

- [1]An, F.D.,2011. Chinese urban water pricing study. In:Shandong University,pp:35-49.
- [2] Chen,H.,2012.Urban water market reform: model, performance and path selection. In: Southwest University of Political Science and Law, PP:32-65.
- [3] Feng,L.and W,Zheng.,2009. Financing and operational performance of rural water supply facilities market: *Shandong evidence. Reform*, 09:81-86.
- [4] Hou,F.Y.,2009. *Shandong Economic*,06:134-142.
- [5] Luo,Y.,2007. Binhai New Area water market operation research. In:Tianjin University of Technology,pp:23-48.
- [6] Wang,L.S.,2008. *Mall Modern*, 25:334.
- [7] Xia,C.X.,2010. *Scientific economic and social*, 02:42-48.
- [8] Yu,L.and Li,Y.,2006. China water industry and related industrial organization policy. *Shandong University (Philosophy and Social Sciences)*, 05:71-77.
- [9] Zhou,X.M.,2007. *Industrial Technology & Economy*, 10:76-79.