

Is Construction Industry in China on Right Track?

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Abstract

The construction industry in China has gone through a market-oriented reform since 1984. Has the sector been made fully market-driven and institutional arrangements been made for construction markets to operate efficiently and effectively? What institutional innovations have taken place in recent years? Has the competition raised efficiency of allocation of resources and well being of the society? Is there any problem that needs further institutional changes? This paper describes the current status and a number of problems of construction markets in China, such as “over-competition”, “tendering show”, default of obligations for payments, redundant and thus inefficient institutional arrangements and finds out the institutional factors that have caused the problems. In addition, issues of making construction markets more efficient have been addressed as well.

Keywords

Over-competition, market efficiency, institutional innovation, default of obligations for payment, price signal

1. Introduction

The construction industry in China was not viewed as a productive sector before 1980s. Mr. Deng Xiaoping pointed out in 1980 that the sector should have been more productive if policies towards it had changed. Reform steps have been taken and new institutional arrangements made for the industry since then. Market has worked well as a resources allocating mechanism. However, failures of market and government to regulate construction markets properly have caused a few problems. This paper limits discussion to “over-competition”, “tendering show”, default obligations for payments, implementation of public projects and role of price as a market signal. The institutional factors leading to the problems and the issues of making construction markets more efficient are addressed as well.

2. Problems and issues of construction markets in China

2.1 “Over-competition”

The construction industry has been used as a tool for government to ensure stable economic growth and sufficient employment and benefited considerably from the government active fiscal policies. The

government has spent ¥400 billions on economic and social infrastructure since 1998, to reverse the economic slow down since 1996 and then 1997. The real estate development backed by generous lending of the state-owned banks and ambitious government housing programs have also generated huge demand for construction industry. The success of Beijing and Shanghai in bidding for Olympic 2008 and World Exposition 2010, respectively, has added to the sector's attractiveness.

The sector for its nature can accommodate huge surplus rural and urban labor. It seems that there always are too many firms chasing very few work contracts. The competition for general construction work has become so keen that the sector is alleged to be over-competitive and that the winner would lose money for certain if he did not employ cheap labor, use cheap materials and substandard workmanship. Very often contractors take advantage of over-capacity of labor-only subcontractors and even suppliers and specialists to push their quotations down.

The over-capacity is not unique with construction force. The same is true of design and construction supervision service suppliers. Clients push professional fees down to a level that cost can hardly be recovered, as design institutes complain. The design and consultant professionals from industrialized countries have made "over-competition" worse.

Most of the companies, however, have survived the alleged "over-competition". A major part of their ability to survive comes from cheap rural labor. The author's field-surveys reveal that workers are paid much lower or forced to work much longer than required by the governments. The same is true of design institutes. The architects and engineers in China are also getting cheaper because of the increasing capacity of universities to supply graduates.

The author believes that the keen competition and the resulting cheaper resources is the demonstration of efficiency of market in allocating resources, which has reduced bid prices and saved a huge amount of public money. According to Mr. Lu Youmei, CEO of China Yangtze Three Gorges Engineering Development Corporation, an amount of ¥22 billion has been saved in comparison to an estimate of ¥201.9 made in early 1990s (Lu Youmei, 2002) partly because of the competitive procurement of works, equipment and professional services.

In the author's opinion, "over-competition" is an excuse of a few state-owned construction companies and design institutes to push the government to prevent their potential competitors from entering the markets. They even cannot define the criteria to judge whether or not a market is over-competitive.

The Ministry of Construction, however, under the pressure, has attempted to raise barriers to entry by pushing stricter standards of licensing and qualifications. Some local governments have tried to prevent the outside construction companies from bidding for their local contracts.

A few people in China attribute the poor quality works to the "over-competition". It is in fact the ineffective legislative and judicial systems that should be responsible for most of the consequences. The problem can be overcome effectively if corruption is cracked down by a more effective legal system or institutional arrangement. To the author, the judicial system in China that took its initial form and grew up during the period of the planned economy has been government-oriented and playing a role of keeper of social rather than economic order. The system shall be made more people

and market-oriented and become a keeper of both social and economic order so as to blame and punish any negative behaviors and the consequences while they arise.

2.2 “Tendering show”

“Tendering show” in this paper refers to the employer of a public project having selected a contractor before he follows a tendering process aiming at showing his compliance with the *Tendering Law*. The reason for him to do so very often is local protectionism and even a kind of corruption. The reason the tendering show players succeed and are at large is the lack of an institutional arrangement where the information on procurement of public works is easily available to the public and the public is well motivated to monitor the procurement process.

2.3 Default of Obligations for Payments

It is a long history practice for employer to pay contractor for the works he gets, while for contractor to deliver the works he is paid for. The principle, however, has not been followed for many years in China. Many employers do not pay their contractors as timely and in amounts as required contractually. The employers’ defaults provide contractor’s excuse to put off payments to his subcontractors and suppliers who in turn default in paying wages to workers, especially those from rural areas. A “debt chain” has thus been formed. According to the State Statistics Bureau the debts of employers to contractors are estimated at ¥300 billions, 18 percent of total construction output in 2001. 41 percent of victims are large state-owned construction enterprises (Wang Mingliang, 2003).

Most of the defaulting employers are government agencies, statutory undertakings, state-owned enterprises and real estate developers. The high competition pressure has made contractors misunderstand that they would get nothing but offending employers, losing contract and even future opportunities if they press employers for payments or take legal action. Encouraged by the contractors’ cowardice and silence the defaults have occurred more frequently in recent years. The real estate developers many of whom are state-owned or government officials-backed follow suits in defaulting obligations for payments.

It is unlikely under the current institutional arrangement for the management of a state-owned construction company to be serious about the defaults now that they can borrow from the state-owned banks to keep their business going. On the other hand, there is no incentive for the state-owned banks to press for debt service. Such behaviors of the parties to a construction contract and the state-owned banks are in fact a typical case of so called *morale hazard problem* that arises from the *principal-agent relationship* between the state (the principal, a virtual owner of public money, banks or construction companies) and the government officials or the managers of state-owned banks or construction companies (agent, pursuer for maximal personal utility rather than bank’s or company’s profits).

Many government officials sponsor projects just for their personal political career rather than the local economic growth and sustainable development. The mayors, governors and other officials in China are to be appointed by the China Communist Party rather than be elected as, for example, in the United States. Pursuit of higher office is their nature and their promotion is GDP and/or political

achievement-based and, therefore, they are keen to sponsor projects such as urban redevelopment, highways and various parks. However, they do not have sufficient financial resources, which can explain why they tend to default in payment. The unsolved “debt chain” sends a signal of demand being larger than it is, misleading the allocation of resources by the potential entrants to construction and property markets. Allocation of more resources than actually needed to real estate development contributes to the property bubble that is inflating in major cities in China. Needless to say, how disastrous it will be if the “debt chain” is broken anyway.

As far as the lack of incentive on the part of state-owned construction companies to claim, collect and pushing for payments due from the employers is concerned they are looking forward to the central government’s intervention rather than their costly and fruitless efforts. That is one more piece of their experience handed down from the previous institutional arrangement under the planned economy. They believe that the central government is on their side and will not forsake them.

A basic assumption of microeconomics about economic entities’ behaviors is that owners wish to maximize utility or profits. This assumption is perhaps most appropriate when the manager is the owner and has direct control of the assets and utility or profits earned. It does not hold, however, in the case of the parties to a construction contract in China. The morale hazard is unavoidable. It is, therefore, obviously urgent to bring the employers’ representatives, the managers of the state-owned construction companies and banks under an institutional arrangement motivating them well enough to maximize the utility or profits for the owners. The new central government formed in March 2003 is trying further institutional changes in this regard. The morale hazard can be minimized if the changes take place as desired.

3. Redundant Institutional Arrangements

As neo-institutional school of economics argues a new institutional arrangement could not replace an existing one unless it could generate more benefit and reduce transaction cost. The school also believes that market drives institutional changes. In real world, however, government is also a keen supplier of institutions. The Ministry of Construction in China plays such a role. It tends to issue regulations, procedures or provisions or to set “new systems” (supply institutions), trying to bring construction markets under its control and keep in order. Very often the negative consequences of a few such institutional changes have not become aware of until very late.

3.1 Construction supervision

The construction supervision that came into being in 1988, as an institutional arrangement, has not played its role as well as expected of ensuring that contractors execute works and perform his obligations as specified contractually, instead become big burdens on the employers in many cases. International practice suggests that employer should retain the designer of his project to administer his contract with contractor. However, the construction supervision system in China requires employers to hire a firm other than the designer to supervise the contractor’s site operations. While the design institute has to have a site representative to clarify to both the contractor and the supervisor the ambiguity or inconsistency in the design documents, if any, rather than directly to the contractor. The proponents of this institutional arrangement argue, without knowing the international practice, that the

designer would for certain cover up and deny the errors or omissions in his design documents if he administers the contract, while the supervisor would act impartially. They even have not realized that it is this practice that has deprived the design professionals, especially the juniors, of the opportunity of verifying and improving their design. It is another point showing why the construction supervision leads to low efficiency of construction industry in China.

3.2 Independent checking of working drawings

Since 2000 all working drawings must be checked by a firm officially certified at employer's cost of 1~2 percent of construction contract sum (Ministry of Construction, 2000), which is alleged to ensure the drawings free of errors and omissions. This arrangement is redundant, too. Complaints are often heard from employers and design institutes about delay in commencement, additional cost and unqualified checkers. However, the most damaging consequence is the weakening of responsibility sense of original designers. The *Construction Law* provides that architects and design engineers be responsible for their design outputs. Now it will be difficult to decide who shall be blamed if any error or omission in the drawings so checked cause serious consequences. It is certainly true that preliminary design shall be reviewed and approved by urban planning authorities for compliance with zoning requirements and safety and convenience of the public. But, it shall take place prior to rather than after detail design. It is also true that the working drawings of important and/or complex works shall be carefully checked and evaluated by selected professionals rather than such a checking firm. In summary, the institutional arrangement shall be removed before its demobilization cost has become very high.

4. Recent Institutional Changes in Construction Markets

4.1 Change of method for implementing public projects

The public and private construction projects should have been treated differently as the author and many others proposed ten years ago or earlier (Lu Youjie, 1993). The governments have proceeded in this direction now. This is one more institutional innovation in China.

Any public body wanting a new facility had to set up a temporary team in the past. This practice turns out inefficient and prone to corruption. The governments have realized that the roles as employer, final user and superior over contractor of a construction project must be separated. Shenzhen, Xiamen and Zhuhai governments have thus set up a new agency in charge of procurement of works in place of final users of public sector. It is believed that an agency staffed with qualified professionals is able to reduce procurement costs and corruption considerably. The Ministry of Construction is urging other cities to follow (Wang Minghui, 2003). As far as private sector including most of state-owned enterprises is concerned the sponsors have been allowed full freedom to handle their construction projects, which means much less government intervention in construction markets.

4.2 Replacement of standard schedules of unit rates with bills of quantities

Prior to early 2002 construction companies used standard schedules of unit rates issued by governments as a basis of estimating and bidding. As a result, bid prices differed from each other very

little. A deviation from the employer's estimate by over 5 percent would lead to rejection of a bid as non-responsive, which had stifled any genuine competition. Price couldn't guide as a signal efficient allocation of resources. The bidder had to compete to influence the employer's award decisions in various ways other than bid price, including bribing. Thing has changed now. The standard schedules of unit rates would have been removed and bills of quantities included in bidding documents as of 1 July 2003. This may be the last and largest institutional change of construction markets in China because construction companies can bid based on their actual technical and managerial capacities and available resources. Biddings carried out in pilot cities indicate that bid prices have been reduced by 5~8 percent, on average. The reduction is as large as 10.7 percent in Shunde, Guangdong (Wu Di, 2003). In addition, lobby for contract has declined as well. This change can be viewed as an improvement of well-being of the society.

5. Conclusions

Reform efforts lasting as long as 20 years have changed the institutional arrangements in which the construction industry operates. Construction markets have been established, although not fully fledged yet, and work well. "Over-competition" is an excuse of a few state-owned construction companies and design institutes to push the government to protect them against their potential competitors. They even couldn't define the criteria to judge whether or not a market is over-competitive. Price has become a signal guiding efficient allocation of resources. That bid prices are getting lower demonstrates the efficiency of competition in allocating resources. Therefore, the sector has been brought on a right track. However, the government shall carefully think about the consequences any institutional change may cause before it is brought into the sector and onto the markets. It is the judicial system rather than the executive branch in China that shall play the major role in keeping construction market in order. The worsening defaulting for payments to the design and construction force, down to line workers, especially those from rural areas, long working hours, illegally low pays, bribing and corruption shall be stopped by the judicial means rather than left to the Ministry of Construction and the local construction commissions.

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