Construction Project’s Price Foundation Adjustment and Countermeasures Under “Replacing Business Tax with Value-added Tax” Policy—A Shaanxi Province Case

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Abstract. After the launch of “Replacing Business Tax with Value-added Tax” (hereinafter referred to as RBTWVAT) policy, all provinces began to adjust their construction project’s price foundation so as to calculate the VAT output tax. Taking Shaanxi Province as an example, this paper analyzes the differences after the adjustment and offering suggestions to its policy. Changes in tax have been known by a practice case’s calculation in this paper too. Therefore, from the point of view of the construction enterprise, this paper puts forward some countermeasures, such as the management of the VAT input tax amount, the coordination of the direct parties, the government preferential policies, and the strengthening of staff learning.

1. Introduction

To conform to national tax reform, construction industry has been in RBTWVAT pilot range since 1$^{st}$ May, 2016 with 11% as its tax rate [1]. For construction enterprises, RBTWVAT can prevent double taxation to reduce the tax burden [2]. Also, it has positive meanings in promoting the development and specialization and cooperation of construction industry, and extending VAT chain [3]. However, the disadvantages are obvious. For example, whether can enterprises adapt to this change? How can VAT be calculated? What measures can be taken to ensure tax is reduced? This paper will explore these urgent issues next.

2. Comparisons Before and After the Price Foundation’s Adjustments and Suggestions

Provinces’ price foundation is the basis of calculating construction projects’ VAT. After RBTWVAT, transitional synthetic coefficient method is adopted in Shaanxi Province, its adjustments are mainly listed below: (1) Regulating that provincial and municipal project cost management institutes announce material information unit-price (VAT is included). (2) Regulating 11% as its tax rate instead of 3.48%. (3) Changing “urban maintenance and construction tax, extra-charge for education and local additional education fee” into supplementary tax, see Eq.1.

Supplementary tax = (sub-engineering fee + measure fee + other fee + regulate fee) × tax rate

(1)

Where tax rate equals 0.48% if tax payment place is in city, 0.41% if in county and town and 0.26% if outside county and town.

In section 3 of Notice on Adjusting Shaanxi Province’s Construction Project’s Price Foundation, on the premise of knowing no-tax project cost under BT policy and no-tax project cost under VAT policy, the coefficient is their specific value, then calculating no-tax project cost under VAT policy. The method seems meaningless. Methods of calculating VAT and machine fee, enterprise management fee and regulate fee’s no-tax price should be specially given, in which case, construction enterprises can put it into practice.
3. Analysis of a Project Cost Practice Case Before and After RBTWVAT

After RBTWVAT, how does a project’s tax change? Now taking a commercial residential building’s project cost in Xi’an city as an example, the building has 32 floors above ground in shear wall structure, with building area of 30036.25 square meters, 96.45 meters high and reinforced concrete full basement. Bases of its bills of quantities valuation are 2009 Shaanxi Province’s Code of bills of quantities and valuation for construction works, 2004 Shaanxi Province’s Consumption quota for building construction and fitting-out works and 2009 Shaanxi Province’s Price list for building construction and fitting-out works.

3.1 Biding price before the adjustment

Table 1. Biding price before the adjustment.

<table>
<thead>
<tr>
<th>Number</th>
<th>Project Name</th>
<th>Calculation Method</th>
<th>Project Cost (Yuan)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>sub-engineering fee</td>
<td>( \Sigma \text{integrated unit price } \times \text{quantities } + \text{possible price difference} )</td>
<td>21852045.47 + 2069317.18 = 23921362.65</td>
</tr>
<tr>
<td>2</td>
<td>measure fee(safe and civilized construction fee is included)</td>
<td>( \Sigma \text{integrated unit price } \times \text{quantities } + \text{possible price difference} )</td>
<td>13016424.22 + 2383220.21 = 15399644.43</td>
</tr>
<tr>
<td>3</td>
<td>other fee</td>
<td>( \Sigma \text{integrated unit price } \times \text{quantities } + \text{possible price difference} )</td>
<td>0.00 + 0.00 = 0.00</td>
</tr>
<tr>
<td>4</td>
<td>regulate fee</td>
<td>( (1 + 2 + 3) \times \text{fee rate} )</td>
<td>1836291.01</td>
</tr>
<tr>
<td>5</td>
<td>no-tax project cost</td>
<td>(1 + 2 + 3 + 4)</td>
<td>41157298.09</td>
</tr>
<tr>
<td>6</td>
<td>tax</td>
<td>(5 \times \text{fee rate} )</td>
<td>1432273.97</td>
</tr>
<tr>
<td>7</td>
<td>project cost</td>
<td>(5 + 6)</td>
<td>42589572.06</td>
</tr>
</tbody>
</table>

3.2 Biding price after the adjustment

Table 2. Biding price after the adjustment.

<table>
<thead>
<tr>
<th>Number</th>
<th>Project Name</th>
<th>Calculation Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>sub-engineering fee</td>
<td>( \Sigma \text{integrated unit price } \times \text{quantities } + \text{possible price difference} )</td>
</tr>
<tr>
<td>2</td>
<td>measure fee(safe and civilized construction fee is included)</td>
<td>( \Sigma \text{integrated unit price } \times \text{quantities } + \text{possible price difference} )</td>
</tr>
<tr>
<td>3</td>
<td>other fee</td>
<td>( \Sigma \text{integrated unit price } \times \text{quantities } + \text{possible price difference} )</td>
</tr>
<tr>
<td>4</td>
<td>regulate fee</td>
<td>( (1 + 2 + 3) \times \text{fee rate} )</td>
</tr>
<tr>
<td>5</td>
<td>no-tax project cost</td>
<td>( (1 + 2 + 3 + 4) \times \text{synthetic coefficient} )</td>
</tr>
<tr>
<td>6</td>
<td>VAT output tax</td>
<td>(5 \times 11% )</td>
</tr>
<tr>
<td>7</td>
<td>supplementary tax</td>
<td>( (1 + 2 + 3 + 4) \times \text{tax rate} )</td>
</tr>
<tr>
<td>8</td>
<td>project cost</td>
<td>(5 + 6 + 7)</td>
</tr>
</tbody>
</table>

According to Table 2, no-tax project cost is 38091567.90 Yuan, among which manual earthwork fee, mechanical earthwork fee, pile foundation fee and building project fee (All these fees are contained in sub-engineering fee) respectively multiplied by 0.9702, 0.9391, 0.9310 and 0.9251. VAT output tax is 4190072.47 Yuan, because it’s in Xi’an city, supplementary tax rate is 0.48%, thus supplementary tax equals 197555.03 Yuan. In all, project cost is 42479195.40 Yuan.

3.3 Analysis on the differences

By calculation, compared with 41157298.09 Yuan, no-tax project cost has decreased by 7.4%. Main reason for this is that the coefficients multiplied by manual earthwork fee, mechanical earthwork fee, pile foundation fee and building project fee are less than 1.
In contrast, VAT output tax is 38091567.90 Yuan, which has drastically increased by 206.34%. In this case, VAT input fee should at least be 2955353.53 Yuan (4190072.47 + 197555.03 - 1432273.97 = 2955353.53) to meet Shaanxi Province’s principal that “For the same construction project, enterprises’ tax payment should be reduced after RBTWVAT”.

At last, project cost has decreased by 0.26%, which is 42479195.40 Yuan. In addition to the reasons for the coefficient, the supplementary tax rate is the main reason for the decline.

4. Countermeasures for Construction Enterprises After RBTWVAT

As shown in the case above, for construction enterprises, project cost reduces a little, but the amount of tax has increased a lot, which means that if it wants to bid same project successfully, its no-tax project cost has to decrease quite a lot. When the quality goal and cost remains unchanged, enterprises’ profit will narrow, even though there are engineering changes that will increase the project cost, its tax will increase too. This will discourage their activeness, encourage some enterprises’ jerry-built works to some extent and do harm to construction industry’s healthy development, which is opposite to RBTWVAT’s aim. In above background, from enterprises’ view, countermeasures are proposed below to make sure project’s tax is reduced.

4.1 Strengthening invoices management and preparing for crediting VAT input tax actively

The direct way to reduce tax is to credit VAT input tax as much as possible. After RBTWVAT, invoices that can be credited are “special invoices for VAT” and “general invoices for VAT”. Enterprises who mostly are general taxpayers should focus on managing the former [5].

By calculation, material fee accounts for about 60% of project cost [6], to credit enough fee from that, enterprises should procure less bricks, sands and stones etc from small-scale taxpayers [7] who are not able to provide special invoices for VAT, or buy these crude material from them at 12% discount [8]. Besides, Actions, such as procuring material from appointed sites that can’t offer valid invoices, must be curbed. Anyway, when procuring material, especially staple ones, besides quality, invoices must be got and entered into account.

For new established construction enterprises or old enterprises that need to procure new construction machines, buyers have to ask sellers for special invoices for VAT. On the one hand, they can be used to credit VAT input tax so as to reduce VAT. On the other hand, book value for construction machines are reduced, and their depreciation cost will decrease, which will reduce enterprises’ cost.

4.2 Untangling and coordinating relationships among direct related parties

Directed related parties here are owner, construction enterprise and the third that provides building services. After RBTWVAT, “material provided by owner” issue should be specifically mentioned in the contract. If most material are provided by owner, VAT input tax that can be credited will decrease seriously. Therefore, enterprises could insist that owner share some VAT obligation with them or project cost rise some percents. The most useful way is to use less material that is provided by owner under the guidance of trust mechanism. For common defaulting on project funds problem, compensation plan that can avoid delayed tax payment shall be issued in the contract at the very beginning.

If in the contract signed by owner and construction enterprise, the third party manages project funds directly with owner, corresponding VAT shall be paid by the third party and offering VAT invoices to the owner [9]. In this way, construction enterprises can transfer some VAT by project subcontracting if legally possible.

4.3 Governments announcing preferential policies

To make the transition go smoothly, governments should announce some preferential policies on tax. For example, reduce tax rate reasonably or unite related departments to launch relatively slack loan policy, which will make enterprises’ cash flow flexible. At the same time, to encourage
enterprises to get involved in PPP business, if tax rate can’t be reduced, governments could think of giving other tax preference or give preference to public land leasing through owner indirectly.

Synthetic evaluation of bid method is adopted in Shaanxi Province, which is averaging all valid bidding price, then multiplying the value by a $K$ value (usually between 0.95 and 1), then naming the final value after “evaluation basic price”. Among all the bidding prices offered by enterprises, the closest one to the evaluation basic price wins. In the process, the $K$ value means that enterprises have to give a discount on the original reasonable bidding price. This preference to owner can be studied or lessened to create a fairer market environment. A reasonable base price set by owner and more supervision on it will also avoid reducing project cost purposely. What’s more, some consultation fee and collateral can be reduced properly.

4.4 Enhancing staffs’ study on RBTWVAT continuously, and improving risk awareness

As existing projects are completed, plenty of projects that need to pay VAT are commencing. Except for improving financial staffs’ quality by training [10], stabilizing material quantity in stock before and after RBTWVAT and analysing fixed assets and staple equipments’ taxation are also necessary for enterprises [11].

On construction projects, the project manager must put an end on naming a price after quitting invoices and work together with financial staff to simulate different projects’ tax payment, concentrating mainly on improving construction management level to reduce cost. Besides, small-scale taxpayers need to pay attention to become general taxpayers due to enterprise’s scale expansion, as thus it should improve its awareness of risk to cope with the fierce competition in construction industry.

5. Summary

RBTWVAT in construction industry is a slight move in one part that may affect the situation as a whole which needs to be taken very seriously. This paper starts from analysing Shaanxi Province’s construction project’s price foundation adjustment and its method of tax calculation after RBTWVAT, and then offers countermeasures to construction enterprises after a practice case’s calculation. Construction enterprises’ projects are the focus in this paper, their enterprises’ cost management after RBTWVAT can be explored further.

References


[9] Information on http://www.chinatax.gov.cn/n810341/n810755/c2567296/content.html
