



The Modelling of Shares and Parameter of The Best Condition in Stock Market with High Investment on Economics I

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Abstract

The relationship between investment and shares is established to find the intrinsic nature. It is found when the best labour is 3 the number of shares are 175 thousand with the intersection of 1 RMB which is turnover point. When the best capital is 5RMB the best quantity will be 135 thousand shares with labor increasing. It is found the 50,000Yuan are the smallest average cost intersecting with 5RMB at any capital with yof 107638 in investment. Meantime 50,000 shares and 300,000 shares are turnover point with 1Yuan and 5 Yuan revenue according to best capital. The biggest total share will happen which attains from 1,500 to 12,000 thousand when the total cost is 200,000Yuan. The smallest shares cost will be minimum in the condition of labor with high Pk. It is observed when laobr is one the minimum TC is 10,000~100,000 with Pk=1000 and 750Yuan respectively.

Keywords: Modeling; High investment; Shares; Stock market; Economics

Introduction

The investment and shares is a behavior with investing much money and requiring revenue from investment and shares in stock market. This process includes buy and sale shares in order to form the profile of shares, so it is a process which completes these two functions in whole process. The profit is calculated through revenue and shares which is an important factor in this process. In this paper the revenue has been computed and drawn from their relationship with cost. The revenue and AC, AVC & AFC which is shares is investigated for searching their change in these processes. For the better benefit it must be studied further it can gain the profit use. Since the stability is key as for this procedure. How we can define stable and low cost parameter is significant matter. For the inference the different drawing between profit cost and quantity is made to analyze the change and low cost situation in this study. The constant labor L & capital K is defined to fit to cost value for this process [1-3]. The least total cost has an important role with the quantity & labor. Because the least one is

evaluating the cost per labor under the best labor and capital on economics. If the cost is big it will increase cost burden. Only if the least cost can decrease the cost price and the reasonable choose may be used in determining the total cost. Because of its availability it may be chosen for other factor such as the random price promotion. In this paper the revenue is adopted from higher value to check the piece and the cost value. So as to higher revenue the low cost value and low pieces is necessary. For the sake of the least total cost the best labor and capital has been established firstly and then determined the least total cost equation with quantity and labor [4-7]. In the study the detail research has been completed with low investment of 1000 shares Now we discuss the detailed search with high investment of 100,000 in this paper. We looked forwards to finding more reasonable one by this study. Through parameters of shares and cost the destination with low cost and the least cost will be hoped to find.

Modelling and Discussions

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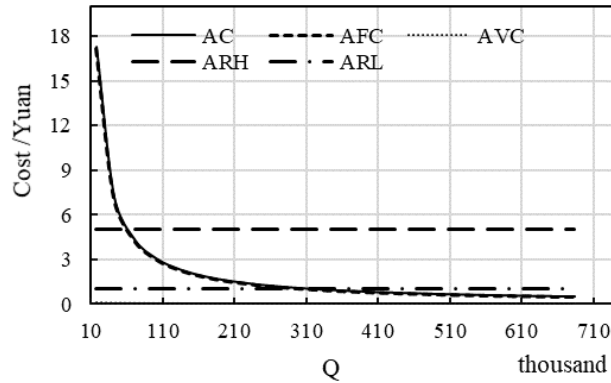
The Investment and shares has been established according to modeling with economic equations that has a certain role in stock market. So Cobb-Douglas function is used to complete the modelling. The detail establishment and modelling is as related literature.

The Cobb-Douglas function is

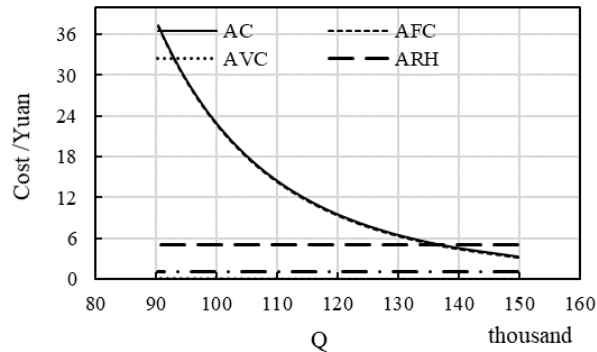
$$Q = \gamma L^\alpha K^\beta \quad (1)$$

Here Production quantity Q ; γ is technique coefficient; α is producing labour; β is capital elasticity. K is capital; L is labour;

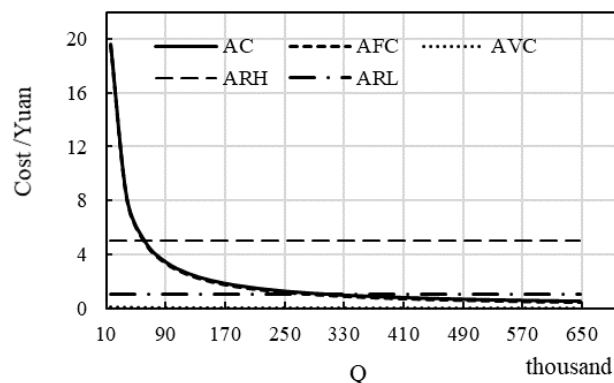
AFC is average fixed cost; AVC is average variable cost; AR is the average revenue; TR is total revenue. The calculated constant is $\gamma=106086$; $\alpha=1.25$; $\beta=-0.26$ respectively. The parameter P_l is labor price and P_k is capital price. They are from 1000 to 3000 and from 3000 to 8000 Yuan respectively. Turnover is in terms of 5Yuan per share and Q is piece of shares. Table 1 shows the parameter of constant value with labor and capital & quantity. It is chosen that 10groups value to acquire average ones. The detail narration is expressed as below (Table 1) (Figure 1).



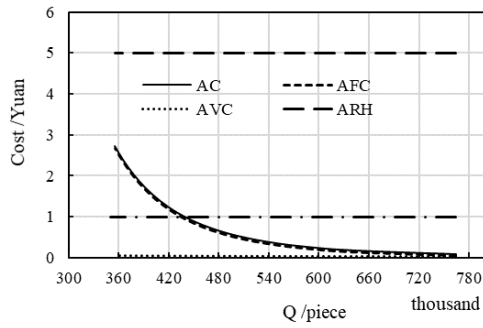
(a) $K=37.4$; $P_l \& P_k=3000 \& 8000$.



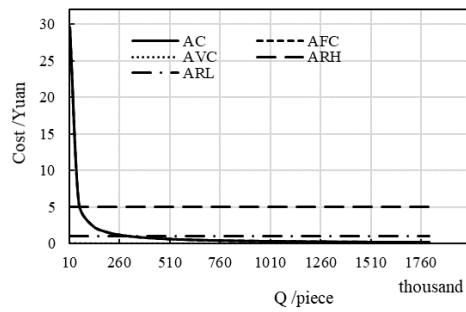
(b) $L=3$; $P_l \& P_k=3000 \& 8000$.



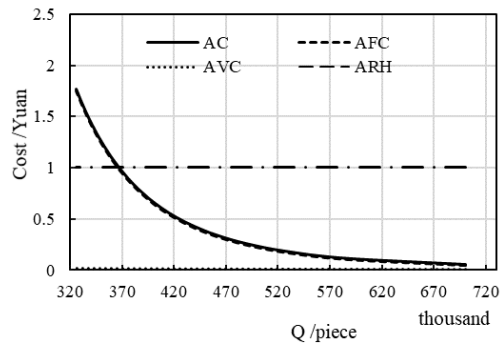
(c) $K=60$; $P_l \& P_k=3000 \& 5000$



(d) $L=7.5; P_l \& P_k=3000 \& 5000$.

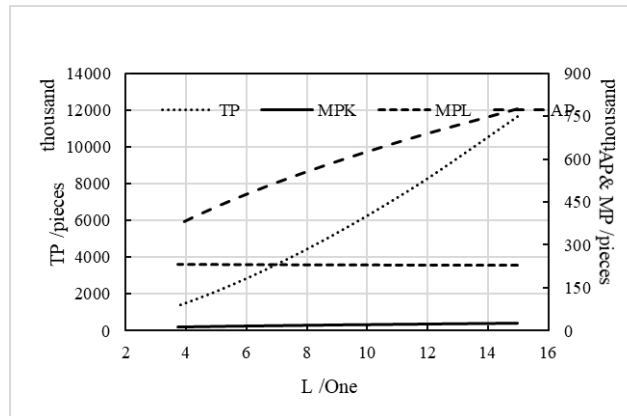


(e) $K=100; P_l \& P_k=1000 \& 3000$.

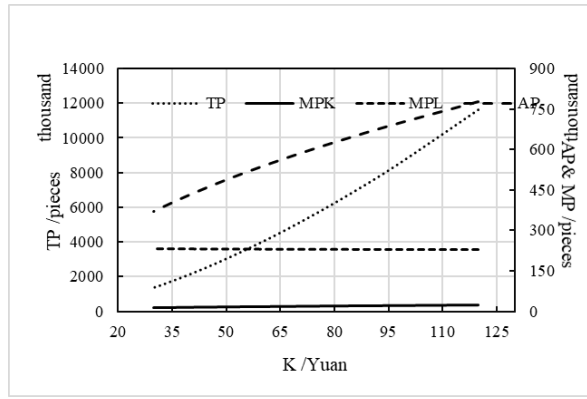


(f) $L=7; P_l \& P_k=1000 \& 3000$

Figure 1: The relationship between cost and number of shares according to different conditions.



(a) L



(b) K

Figure 2: The relationship between maximum & marginal production and number of capital and labor.

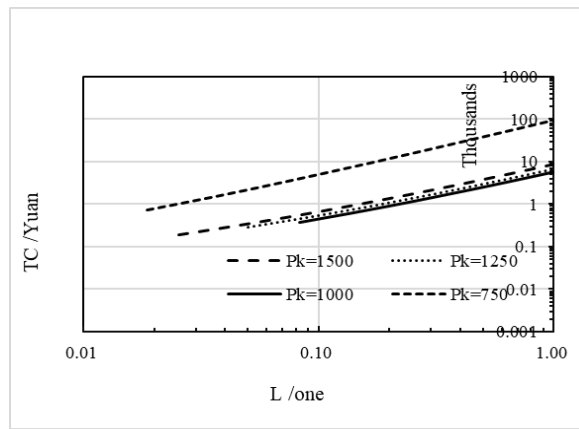


Figure 3: The minimum cost with labor quantity and 100,000 pieces under different P_k.

Table 1: The conditions of original parameters and coefficient.

Parameters No.	l	K	Q	α	β	γ
1	0.1	0.1	10, 000	-	-	-
2	0.2	0.2	20, 000	-	-	-
3	0.3	0.3	30, 000	1.69	-0.41	141391
4	0.4	0.4	40, 000	1.41	-0.29	111396
5	0.5	0.5	50, 000	1.29	-0.22	104575
6	0.6	0.6	60, 000	1.22	-0.18	102107
7	0.7	0.7	70, 000	1.18	-0.15	101010
8	0.8	0.8	80, 000	1.15	-0.13	100461
9	0.9	0.9	90, 000	1.13	-0.12	100166
10	1	1	100, 000	1.12	-0.11	100000
11	1.1	1.1	110,000	1.11	-0.10	99904
12	1.2	1.2	120,000	1.10	-0.09	99849
Average	-	-	-	1.24	-0.18	106086

It is found when the best labour is from 3 to 7.5 & 7 the number of shares are 430 thousand with the intersection of 1 RMB in Figure 1(d) with L=7.5 which is turnover point from Figure

1(a~f) according to the P_l and P_k from 1000 to 8000. When the best capital is 1RMB the quantity will be 175 thousand RMB and the turnover point is 135 thousand of the number of shares with



the 5 RMB in Figure 1(a). So the balance value is 1~5RMB which could be satisfactory with both situations because the average revenue 1RMB can't be intersected with average cost line in the case of the one higher than labor of 3 for example 7.5 & 7. The intersection with 1RMB is 1050 and 740 thousand in the above two cases. The bigger one accounts for the turn with 430 and 360 thousand. It is expected that the revenue has been increased so that the share decreases to normal level. Meantime the labor is somewhat higher according to the Cobb-Douglas function than capital. In Figure 1(b, d & f) the normal share value exhibits the normal one will be formed in this study. The same value is from 50 to 300 thousand with 5 RMB and 1RMB respectively whatever capital variation is here at different PI and Pk. Therefore because the intersection with 1RMB is higher than 100 thousand shares and promoting revenue is necessary. To say more if labor increases share will increase (Figure 2).

From Figure 2 the best total shares will increase when the K & L increases from 30 to 120 and from 3.5 to 15 respectively in the total cost of 200,000 Yuan. It is under parameter with $PI=1000\sim 3000$ and $Pk=3000\sim 8000$. The average shares will increase too from 400 to 750 thousand too while capital increases. The best shares lie in 120,000 thousand Yuan. It explains that the increasing capital will increase the revenue. When the price of labor and capital increase the maximum number of shares will increase. It ranges from 1,500 thousand to 12,000 thousand shares. It expresses that increasing the price will cause maximum shares increase. MPL maintains 250 thousand level meanwhile MPK stays 20 thousand (Figure 3).

In Figure 3 it is expressed that the minimum cost will increase with the labor increasing. Meantime it increases when the Pk increases from 750 Yuan to 1,250 Yuan. The smallest shares will be in the condition of capital being 10,000Yuan with labor of 1 and Pk being 1000 Yuan besides labor with high Pk of 1500 which accounts for higher PI related to Pk. It reaches the maximum value with total cost TC of 10,000 Yuan at laobr of 1. If extending the curve it is observed when laobr is one the minimum TC is 100,000 Yuan with $Pk=750$ Yuan. The one will be high with the Pk which reaches maximum. Total cost has the tendency that approaches one. It explains the availability has been formed in this study. The one with $Pk=1,000$ Yuan is the smallest total cost wherein $Pk=750$ Yuan is the highest cost on the contrary.

Conclusions

To find the intrinsic nature the relationship between investment and shares is established according to Cobb-Douglas function. It is found when the best labour is 3 the number of shares are 175 thousand with the intersection of 1 RMB which is turnover point. When the best capital is 5RMB the best quantity will be 135 thousand shares with labor increasing. It is found the 50,000Yuan

are the smallest average cost intersecting with 5RMB at any capital with γ of 107638 in investment. Meantime 50,000 shares and 300,000 shares are turnover point with 1Yuan and 5 Yuan revenue according to best capital. The biggest total share will happen which attains from 1,500 to 12,000 thousand when the total cost is 200,000Yuan. The smallest shares cost will be minimum in the condition of labor with high Pk. It is observed when laobr is one the minimum TC is 10,000~100,000 with $Pk=1000$ and 750Yuan respectively.

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