

## 第十章 作业

### 计算题

Suppose you are the seller, please calculate the unit price in USD(on the basis of CIFC5% Houston) according to the following information:

Port of shipment: Shanghai

Port of destination: Houston

Purchase Cost: CNY 80/piece

VAT Rate: 17%

Drawback Rate: 15%

Quantity: 2000 pieces

Warehouse Charges: CNY 600

Certificate charges: CNY300

Domestic Transport Charges: CNY 500

Port charges: CNY 1000

Interest Rate: 2.5%/year, 30 days on the basis of purchase cost

Banking Charges: advising charges CNY 200

Export freight: USD 0.5/piece

Export Premium: All Risks 0.8% War Risks 0.3%

Commission Rate: 5% on the basis of CIFC5%

Profit rate: 10% on the basis of CIFC5%

Exchange Rate: USD : CNY = 1: 6.38/6.40

答案:

#### **I List the information**

1. Quantity: 2000 pieces

2. Cost

Purchase Cost: CNY 80/pieces

VAT Rate: 17%

Drawback Rate: 15%

3. Charges

1) Domestic charges

Warehouse Charges: CNY 600

Certificate charges: CNY300

Domestic Transport Charges: CNY 500

Port charges: CNY 1000

Interest Rate: 2.5%/year, 30 days on the basis of purchase cost

Banking Charges: advising charges CNY 200

2) Export charges

Export freight: USD 0.5/piece

Export Premium: All Risks 0.8% War Risks 0.3%

Commission Rate: 5% on the basis of CIFC5%

4.profit

Profit rate: 10% on the basis of CIFC5%

5. Exchange rate

Exchange Rate: USD : CNY = 1: 6.38/6.40

## II Calculation

### 1. Cost

$$\begin{aligned}\text{Actual Cost} &= \text{Purchase cost} - \text{Drawback} \\ &= \text{Purchase cost} - \text{Purchase cost} \div (1 + \text{VAT Rate}) \times \text{Drawback Rate} \\ &= \text{CNY } 80 - 80 \div (1 + 17\%) \times 15\% \\ &= \text{CNY } 80 - 10.2564 \\ &= \text{CNY } 69.7436/\text{piece}\end{aligned}$$

### 2. Charges

#### 1) Domestic charges

$$\begin{aligned}\text{Interest} &= \text{Amount} \times \text{Interest Rate} \times \text{Days} \div 360 \\ &= \text{CNY } 80 \times 2.5\% \times 30 \div 360 \\ &= \text{CNY } 0.1667/\text{piece}\end{aligned}$$

$$\begin{aligned}\therefore \text{Domestic charges} &= \text{Warehouse charges} + \text{Certificate charges} + \text{Domestic transport} \\ &\quad \text{charges} + \text{Port charges} + \text{Banking charges} + \text{Interest} \\ &= \text{CNY } (600 + 300 + 500 + 1000 + 200) \div 2000 + 0.1667 \\ &= \text{CNY } 1.3 + 0.1667 \\ &= \text{CNY } 1.4667/\text{piece}\end{aligned}$$

#### 2) Export charges

$$(1) \text{ Export freight} = \text{USD } 0.5 \times 6.38 = \text{CNY } 3.19 / \text{piece}$$

$$\begin{aligned}(2) \text{ Export premium} &= \text{CIF} \times (1 + \text{insurance bonus rate}) \times \text{premium rate} \\ &= \text{CIF} \times 5\% \times (1 + 10\%) (0.8\% + 0.3\%) \\ &= \text{CIF} \times 5\% \times 1.21\% / \text{piece}\end{aligned}$$

$$\begin{aligned}(3) \text{ Commission} &= \text{commission-included price} \times \text{commission rate} \\ &= \text{CIF} \times 5\% \times 5\% / \text{piece}\end{aligned}$$

$$\begin{aligned}\text{Export charges} &= \text{Export freight} + \text{Export premium} + \text{Commission} \\ &= \text{CNY } 3.19 + \text{CIF} \times 5\% \times 1.21\% + \text{CIF} \times 5\% \times 5\% \\ &= \text{CNY } 3.19 + \text{CIF} \times 5\% \times 6.21\% / \text{piece}\end{aligned}$$

### 3. Profit = Quoted price $\times$ profit rate

$$= \text{CIF} \times 5\% \times 10\% / \text{piece}$$

$$\begin{aligned}\therefore \text{CIF} \times 5\% &= \text{Actual Cost} + \text{Charges} + \text{Profit} \\ &= \text{CNY } 69.7436 + \text{CNY } 1.4667 + \text{CNY } 3.19 + \text{CIF} \times 5\% \times 6.21\% + \text{CIF} \times 5\% \times 10\% \\ &= \text{CNY } 74.4003 + \text{CIF} \times 5\% \times 0.1621 / \text{piece}\end{aligned}$$

$$\text{CIF} \times 5\% - \text{CIF} \times 5\% \times 0.1621 = \text{CNY } 74.4003$$

$$\text{CIF} \times 5\% (1 - 0.1621) = \text{CNY } 74.4003$$

$$\text{CIF} \times 5\% = \text{CNY } 74.4003 \div (1 - 0.1621)$$

$$\text{CIF} \times 5\% = \text{CNY } 74.4003 \div 0.8379$$

$$= \text{CNY } 88.7938 / \text{piece}$$

Covert CNY into USD:

$$\text{CIF} \times 5\% = \text{CNY } 88.7938 \div 6.38$$

$$= \text{USD } 13.92 / \text{piece}$$

So the unit price is USD 13.92/piece CIF 5% Houston