

## FINANCIAL ACCOUNTING IV

### VALUATION OF GOODWILL

Goodwill is also one of the special aspects of partnership accounts which requires adjustment at the time of a change in the profit sharing ratio, the admission of a partner or the retirement or death of a partner.

#### Meaning of Goodwill

Over a period of time, a well-established business develops an advantage of good name, reputation and wide business connections. This helps the business to earn more profits as compared to a newly set up business. In accounting, the monetary value of such advantage is known as 'goodwill'.

It is regarded as an intangible asset. In other words, goodwill is the value of the reputation of a firm in respect of the profits expected in future over and above the normal profits. It is generally observed that when a person pays for goodwill, he/she pays for something, which places him in the position of being able to earn super profits as compared to the profit earned by other firms in the same industry.

In simple words, goodwill can be defined as "the present value of a firm's anticipated excess earnings" or as "the capitalized value attached to the differential profit capacity of a business". Thus, goodwill exists only when the firm earns super profits. Any firm that earns normal profits or is incurring losses has no goodwill.

#### Factors giving rise to Goodwill

The main factors helping the creation of goodwill are as follows :

1. *Nature of Business* : A firm that produces high value added products or having a stable demand is able to earn more profits and therefore has more goodwill.
2. *Location* : If the business is centrally located or is at a place having heavy customer traffic, the goodwill tends to be high.
3. *Efficiency of Management* : A well-managed concern usually enjoys the advantage of high productivity and cost efficiency. This leads to higher profits and so the value of goodwill will also be high.
4. *Market situation* : The monopoly condition or limited competition enables the concern to earn high profits which leads to higher value of goodwill.
5. *Special Advantages* : The firm that enjoys special advantages like import licences, low rate and assured supply of electricity, long-term contracts for supply of materials, well-known collaborators, patents, trade marks, etc. enjoy higher value of goodwill.

#### Need for Valuation

Normally, the need for valuation of goodwill arises at the time of the sale of a business. But, in case of a partnership firm it may also arise in the following circumstances:

1. Change in the profit sharing ratio amongst the existing partners;
2. Admission of a new partner;
3. Retirement of a partner;
4. Death of a partner;
5. Dissolution of a firm which involves sale of business as a going concern;  
and
6. Amalgamation of firms.

## Methods of Valuation of Goodwill

### 1. Average Profits Method

The average profits method primarily takes the following two forms -

#### a. Simple Average

Here, the goodwill is evaluated by the calculation of average profit against the number of years purchased.

$$\text{Goodwill} = \text{Average profit} \times \text{Number of years of purchase}$$

#### b. Weighted Average

This method is usually used in the instances of alterations of profit while also focusing on the current year's profit. It calculates the previous year's profit for obtaining the valuation.

$$\text{Goodwill} = \text{Weighted Average Profit} \times \text{Number of years of purchase}$$

### 2. Super Profits Method

The super profit method of valuation of goodwill covers the excess of the maintainable profits in the future as opposed to the normal profits. The formula is indicated below.

$$\text{Goodwill} = \text{Super profit} \times \text{Number of years of purchase}$$

(Super profit = Average / Actual profit – Normal profit)

Normal profit = (Capital employed X Normal rate of return) / 100)

The super-profits method can be undertaken by either of the two following methods.

**a. Annuity Method of Goodwill**

The annuity method in the valuation of goodwill uses the average super profit over a specific number of years. The current value of an annuity is found on the basis of a discounted amount of super profit at the established rate of interest.

**b. Purchase Method by Number-of-Years**

Super profits in a definite number of purchase years are evaluated forestablishing goodwill.

**3. Capitalisation Method**

In the goodwill capitalization method, there are two ways in which the calculation canbe done.

**a. Average Profits Method**

The calculation covers the deduction of its actual capital that has been employed from the average profits of the capitalized value. It is undertaken based on the normal rate of return.

$$\text{Goodwill} = \text{Capitalised Average profits} - \text{Actual capital employed}$$

(Capitalised average profits = Average profits X 100 / Normal rate of return  
Actual capital employed = Total assets (excluding goodwill) – Outside liabilities)

**b. Super Profits Method of Valuation of Goodwill**

In these methods, super profits are directly capitalized for the valuation ofgoodwill.

$$\text{Goodwill} = \text{Super profits} \times 100 / \text{Normal rate of return}$$

*1. Average Profits Method :*

*Illustration (Goodwill)*

The profit for the last five years of a firm were as follows year 1999 Rs. 4,00,000; year 2000 Rs. 3,98,000; year 2001 Rs. 4,50,000; year 2002 Rs. 4,45,000 and year 2003 Rs. 5,00,000. Calculate goodwill of the firm on the basis of 4 years purchase of 5 years average profits.

### Solution

<i>Year</i> <i>Rs.</i>	<i>Profit</i> <i>Rs.</i>
1999	4,00,000
2000	3,98,000
2001	4,50,000
2002	4,45,000
2003	5,00,000
<b>Total</b>	<b>21,93,000</b>

$$\text{Average Profit} = \frac{\text{Total profit of last 5 years}}{\text{No. of years}} = \frac{\text{Rs. } 21,93,000}{5} = \text{Rs. } 4,38,600$$

$$\begin{aligned} \text{Goodwill} &= \text{Average Profits} \times \text{No. of years purchased} \\ &= \text{Rs. } 4,38,600 \times 4 = \text{Rs. } 17,54,400 \end{aligned}$$

*Illustration 13 (Goodwill)*

Compute the value of goodwill on the basis of four years' purchase of the average profits based on the last five years.

**The profits for the last five years were as follows :**

<b>Year</b>	<b>Rs.</b>
1999	40,000
2000	50,000
2001	60,000
2002	50,000
2003	60,000

**Solution**

**Calculation of Average Profits**

<b>Year</b>	<b>(Profits) Rs.</b>
1999	40,000
2000	50,000
2001	60,000
2002	50,000
2003	60,000
<b>Total</b>	<b>2,60,000</b>

$$\begin{aligned}\text{Average Profits} &= 2,60,000/5 \\ &= \text{Rs. } 52,000 \\ \text{Goodwill} &= \text{Rs. } 52,000 \times 4 \\ &= \text{Rs. } 2,08,000\end{aligned}$$

1. *Weighted Average Profit Method :*

$$\begin{aligned}\text{Weighted Average Profit} &= \frac{\text{Total of Productsof Profits Total of Weights}}{\text{Total of Weights}} \\ \text{Goodwill} &= \text{Weighted Average Profits} \times \text{Agreed Number of years' (Purchase)}\end{aligned}$$

*Illustration 15 (Goodwill)*

The profits of a firm for the year ended 31st March for the last five years were as follows :

<i>Year</i>	<i>Profit (Rs.)</i>
1999	20,000
2000	24,000
2001	30,000
2002	25,000
2003	18,000

Calculate the value of goodwill on the basis of three years' purchase of weighted average profits after weights 1,2,3,4 and 5 respectively to the

profits for 1999, 2000, 2001, 2002 and 2003.

**Solution**

<i>Year ended 31 March</i>	<i>Profit Rs.</i>	<i>Weight</i>	<i>Product</i>
1999	20,000	1	20,000
2000	24,000	2	48,000
2001	30,000	3	90,000
2002	25,000	4	1,00,000
2003	18,000	5	90,000
<b>Total</b>		<b>15</b>	<b>3,48,000</b>

$$\text{Weighted Average Profit} = \frac{3,48,000}{15} = \text{Rs. } 23,200$$

$$\text{Goodwill} = 23,200 \times 3 = \text{Rs. } 69,600$$

**Super Profits Method**

$\text{Normal Profits} = \frac{\text{Capital Employed} \times \text{Normal Rate of Return}}{100}$
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*Illustration 19 (Goodwill)*

The capital of the firm of Anu and Benu is Rs. 1,00,000 and the market rate of interest is 15%. Annual salary to partners is Rs. 6,000 each. The profits for the last 3 years were Rs. 30,000; Rs. 36,000 and Rs. 42,000. Goodwill is to be valued at 2 years purchase of the last 3 years' average super profits. Calculate the goodwill of the firm.

**Solution**

$$\text{Interest on capital} = 1,00,000 \times \frac{15}{100} = \text{Rs. } 15,000 \dots\dots\dots (i)$$

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Add partner's salary	=	$\frac{\text{Rs. } 6,000}{2} \times 2$	=	Rs. 12,000	
					) .....(ii)
Normal Profit (i + ii)				=	Rs. 27,000
Average Profit				=	$\frac{\text{Rs. } 30,000 + \text{Rs. } 36,000 + \text{Rs. } 42,000}{3}$
					= Rs. 36,000
Super Profit				=	Average Profit – Normal Profit
					= Rs. 36,000 – Rs. 27,000
					= Rs. 9,000
Goodwill				=	Super Profit × No of years'
					= purchase Rs. 9,000 × 2
					= Rs. 18,000

**Capitalization Method** Under this method the goodwill can be calculated in two ways : (a) by capitalizing the average profits, or (b) by capitalizing the super profits.

(a) *Capitalization of Average Profit* : In this method, the value of goodwill is ascertained by deducting the actual capital employed (net assets) in the business from the capitalized value of the average profits on the basis of normal rate of return. This involves the following steps :

- (i) Ascertain the average profits based on the past few years' performance.
- (ii) Capitalize the average profits on the basis of the normal rate

Average Profits × 100/Normal Rate of Return
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of return as follows :

This will give the total value of business.

- (iii) Ascertain the actual capital employed (net assets) by deducting outside liabilities from the total assets (excluding goodwill).

Capital Employed = Total Assets (excluding goodwill) – outside liabilities
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- (iv) Compute the value of goodwill by deducting net assets from the total value of business, i.e. (ii) – (iii).

#### *Illustration 20 (Goodwill)*

A business has earned average profits of Rs. 1,00,000 during the last few years and the normal rate of return in a similar type of business is 10%. Ascertain the value of goodwill by capitalization method, given that the value of net assets of the business is Rs. 8,20,000.

#### **Solution**

Capitalized Value of Average Profits

$$\frac{\text{Rs. } 1,00,000}{100} \times 100 = \text{Rs } 10,00,000$$

$$\begin{aligned}\text{Goodwill} &= \text{Capitalized Value} - \text{Net Assets} \\ &= 10,00,000 - 8,20,000 \\ &= \text{Rs. } 1,80,000\end{aligned}$$

(b) *Capitalization of Super Profits* : Under this method following steps are involved :

- (i) Calculate Capital employed of the firm, which is equal to total assets minus outside liabilities.
- (ii) Calculate required profit on capital employed by using the following formula :

$$\text{Profit} = \text{Capital Employed} \times \text{Required Rate of Return}/100$$

- (iii) Calculate average profit of past years, that is, 3 to 5 years.
- (iv) Calculate super profits by deducting required profits from average profits.
- (v) Multiply the super profits by the required rate of return multiplier, that is,

$$\text{Goodwill} = \text{Super Profits} \times 100/\text{Normal Rate of Return}$$

In other words, goodwill is the capitalized value of super profits.

#### *Illustration 21(Goodwill)*

Calculate Goodwill if :

- (i) The goodwill of a firm is estimated at three years' purchase of the average profits of the last five years which are as follows :

Years:	1998	1999	2000	2001	2002
Profits (Loss):	Rs.10,000	15,000	4,000	(5,000)	6,000

- (ii) If in the firm total capital employed is Rs.1,00,000 and normal rate of return is 8%, the average profit for last 5 years is Rs. 12,000 and goodwill is estimated at 3 years' purchase of super profits, remuneration to partners Rs. 3000.
- (iii) Rama Brothers earn a net profit of Rs. 30,000 with a capital of Rs. 2,00,000. The normal rate of return in the business is 10%. Use capitalization of super profits method to value the goodwill.

#### **Solution**

- (i) Total Profit = Rs. 10,000 + 15,000 + 4,000 + 6,000 – 5,000 = Rs. 30,000  
 Average Profit = Rs. 30,000/5 = Rs. 6,000  
 Goodwill = Average Profit × 3 = Rs. 6,000 × 3 = Rs. 18,000.
- (ii) Average Profit = Rs. 12,000  
 Remuneration to Partners = Rs. 3,000  
 Average actual profit = Rs. 12,000 – Rs. 3,000 = Rs. 9,000  
 Normal Profit = Rs. 1,00,000 × 8/100 = Rs. 8,000  
 Super Profit = Average Profit – Normal profit = Rs. 9,000 – 8,000 = Rs. 1,000



$$\text{Goodwill} = \text{Super Profit} \times 3 = 1,000 \times 3 = \text{Rs. } 3,000$$

$$(iii) \text{ Normal Profit} = \text{Rs. } 2,00,000 \times 10/100 = \text{Rs. } 20,000$$

$$\text{Super Profit} = \text{Average Profit} - \text{Normal Profit} = \text{Rs. } 30,000 - 20,000 \\ = \text{Rs. } 10,000$$

$$\text{Goodwill} = \text{Super Profit} \times 100/\text{Normal Rate of Return} \\ = 10,000 \times 100/10 = \text{Rs. } 1,00,000$$

2. *Present Value of Super Profits* : Under this method, goodwill is estimated as the present value of the future super profits. This requires following steps:

- (i) Calculate the future super profits for next 5 to 7 years depending upon the business potential.
- (ii) Choose the required rate of return.
- (iii) Calculate present value factors.
- (iv) Multiply present value factors with future super profits.
- (v) The sum of product of present value factors and super profits is the value of goodwill.

*Illustration 22 (Goodwill)*

A firm has the forecasted profits for the coming 5 years as follows :

Year	I	II	III	IV	V
Profits (Rs.)	1,00,000	1,20,000	90,000	1,00,000	1,50,000

The total assets of the firm are Rs. 10,00,000 and outside liabilities are Rs. 2,00,000. The present value factor at 10% are as follows :

Year	I	II	III	IV	V
PVF	0.9091	0.8264	0.7513	0.6830	0.6209

Calculate the Value of goodwill.

**Solution**

Year	I	II	III	IV	V
Profits (Rs.)	1,00,000	1,20,000	90,000	1,00,000	1,50,000
Normal Profit	80,000	80,000	80,000	80,000	80,000
Super Profit	20,000	40,000	10,000	20,000	70,000
PVF	0.9091	0.8264	0.7513	0.6830	0.6209
Present Value of Super Profits	18,182	33,056	7,513	13,660	43,463

$$\text{Value of Goodwill} = \text{Rs. } 18,182 + 33,056 + 7,513 + 13,660 + 43,463 \\ = \text{Rs. } 1,15,874$$