

Average Profit Method:-

Q1. Goodwill is to be valued at three year purchase of four year average profit. Profit of the firm for last four years ending 31st March, were:

**2019 – 12,000; 2020 – 18,000; 2021 – 16,000; 2022 – 14,000.
Calculate amount of Goodwill.**

Solution – Average Profit of the year

$$= \frac{12,000 + 18,000 + 16,000 + 14,000}{4}$$

$$= \frac{60,000}{4}$$

$$= 15,000$$

Goodwill = Average Profit of the year x Three year Purchase

$$= 15,000 \times 3$$

$$= 45,000$$

Q2. Profits for the five years ending 31st March are as follows:

Year 2020 – 4,00,000; year 2021 – 3,98,000; year 2022 – 4,50,000; year 2023 – 4,45,000 and year 2024 – 5,00,000.

Calculate goodwill of the firm on the basis of 4 years purchase of 5 years average profit.

Solution - Average Profit of Five year

$$= \frac{4,00,000 + 3,98,000 + 4,50,000 + 4,45,000 + 5,00,000}{5}$$

$$= \frac{21,93,000}{5}$$

$$= 4,38,600$$

Goodwill = Average Profit for 5 year x Four year Purchase

$$= 4,38,600 \times 4$$

$$= 17,54,400$$

Q3. Purav and Purvi are partners in a firm sharing profits and losses in the ratio of 2:1. They decided to take Parv into partnership for $\frac{1}{4}$ th share on 1st April, 2024. For this purpose, goodwill is to be valued at four times the average annual profit of the previous four or five years, whichever is higher. The agreed profits for goodwill purpose of the past five year ended 31st March are:

Year	2020	2021	2022	2023	2024
Profits	14,000	15,500	10,000	16,000	15,000

Calculate the value of goodwill.

Solution – Average Profit of 4 year

$$\begin{aligned}
 &= \frac{15,000 + 16,000 + 10,000 + 15,500}{4} \\
 &= \frac{56,500}{4} \\
 &= 14,125
 \end{aligned}$$

Average Profit of 5 year

$$\begin{aligned}
 &= \frac{15,000 + 16,000 + 10,000 + 15,500 + 14,000}{5} \\
 &= \frac{70,500}{5} \\
 &= 14,100
 \end{aligned}$$

As average Profit of 4 year is greater

$$\begin{aligned}
 \text{Goodwill} &= \text{Average Profit of 4 year} \times 4 \\
 &= 14,125 \times 4 \\
 &= 56,500
 \end{aligned}$$

Average Profit Method When Past Adjustments are Made:-

Q4. Asin and Shreyas were partners sharing profits and losses in the ratio of 2:1. They admitted Shyam as a partner for $\frac{1}{5}$ th share in profits. For this purpose Goodwill of the firm was to be valued on the basis of three years purchase of last five years average profit. Profit for the last five years ended 31st March, were

Year	2020	2021	2022	2023	2024
Profits	1,25,000	1,00,000	1,87,500	(62,500)	1,25,000

Calculate Goodwill of the firm after adjusting the following:

Profit of 2020-21 was calculated after charging 25,000 for abnormal loss of goods by fire.

Solution – Average Profit of Last 5 Year after Adjustment

$$\begin{aligned} &= \frac{1,25,000 - 62,500 + 1,87,500 + (1,00,000 + 25,000) + 1,25,000}{5} \\ &= \frac{5,00,000}{5} \\ &= 1,00,000 \end{aligned}$$

Goodwill = Average Profit of last 5 year x Three year Profit

$$\begin{aligned} &= 1,00,000 \times 3 \\ &= 3,00,000 \end{aligned}$$

Q5. Madhu and Vidhi are partners sharing profits in the ratio of 3:2. They decided to admit Manu as a partner from 1st April, 2024 on the following terms:

- I. Manu will be given 2/5th share of the profit.**
- II. Goodwill of the firm will be valued at two years purchase of three years normal average profit of the firm.**

Profits of the previous three years ended 31st March, were:

2024 – Profit 30,000 (after debiting loss of stock by fire 40,000).

2023 – Loss 80,000 (includes voluntary retirement compensation paid 1, 10,000).

2022 – Profit 1, 10,000 (including a gain (profit) of 30,000 on the sale of fixed assets).

Calculate The Value Of Goodwill.

Solution – Correct Profit after Adjustment

Profit (2024) = 30,000 + 40,000 = 70,000

Profit (2023) – (-80,000) + 1, 10,000 = 30,000

Profit (2022) – 1, 10,000 – 30,000 = 80,000

Average Profit of 3 Year

$$\begin{aligned} &= \frac{70,000 + 30,000 + 80,000}{3} \\ &= \frac{1,80,000}{3} \\ &= 60,000 \end{aligned}$$

Goodwill = Average Profit of 3 year x Two year Profit

$$= 60,000 \times 2$$

$$= 1,20,000$$

Q6. Tarang purchased Jyoti's business with effect from 1st April, 2024. Profits shown by Jyoti's business for the last three financial years ended 31st March, were:

2022: 1, 00,000 (including an abnormal gain of 12,500)

2023: 1, 25,000 (after charging an abnormal loss of 25,000)

2024: 1, 12,500 (excluding 12,500 as insurance premium on firm's property – now to be insured)

Calculate the value of firm's goodwill on the basis of two years purchase of the average profit of the last three years.

Solution – Normal Profit after Adjustment

Profit (2022) – 1, 00,000 – 12,500 = 87,500

Profit (2023) – 1, 25,000 + 25,000 = 1, 50,000

Profit (2024) – 1, 12,500 – 12,500 = 1, 00,000

Average Profit

$$= \frac{87,500 + 1, 50,000 + 1, 00,000}{3}$$

$$= \frac{3, 37,500}{3}$$

$$= 1, 12,500$$

Goodwill = Average Profit x Two year Profit

$$= 1, 12,500 \times 2$$

$$= 2, 25,000$$

Q7. Abhay, Babu and Charu are partners sharing profits and losses equally. They agree to admit Daman for equal share of profit. For this purpose, the value of goodwill is to be calculated on the basis of four years purchase of average profit of last five years. These profits for the year ended 31st March, were:

Year	2020	2021	2022	2023	2024
Profits/ Loss	1,50,000	3,50,000	5,00,000	7,10,000	(5,90,000)

On 1st April, 2023, a car for 1, 00,000 was purchased and debited to Travelling Expenses Account, on which depreciation is to be charged @ 25% p.a. Interest of 10,000 on Non-trade Investments is credit to income for the year ended 31st March, 2023 and 2024.

Calculate the value of goodwill after adjusting the above.

Solution – Normal Profit after adjustment

Profit (2023) – 7, 10,000 – 10,000 = 7, 00,000

Profit (2024) – (- 5, 90,000) + 1, 00,000 – 25,000 – 10,000 = - 5, 25,000

Average Profit Last 5 year

$$= \frac{1, 50,000 + 3, 50,000 + 5, 00,000 + 70,000 - 5, 25,000}{5}$$

$$= \frac{11, 75,000}{5}$$

$$= 2, 35,000$$

Goodwill = Average Profit x Four year Profit

$$= 2, 35,000 \times 4$$

$$= 9, 40,000$$

Q8. Sumit purchased Amit's business on 1st April, 2022. Goodwill was decided to be valued at two years purchase of average normal profit of last four years. The profits for the past four years were:

Year Ended	31 st March, 2021	31 st March, 2022	31 st March, 2023	31 st March, 2024
Profits	80,000	1,45,000	1,60,000	2,00,000

Books of Account revealed that:

- I. Abnormal loss of 20,000 was debited to Profit and Loss Account for the year ended 31st March, 2021.
- II. A fixed asset was sold in the year ended 31st March, 2022 and gain (profit) of 25,000 was credited to Profit & Loss Account.
- III. In the year ended 31st March, 2023 assets of the firm were not insured due to oversight. Insurance premium not paid was 15,000.

Calculate the value of goodwill.

Solution – Normal Profit after Adjustment

Normal Profit (2021) – 80,000 + 20,000 = 1, 00,000

Normal Profit (2022) – 1, 45,000 – 25,000 = 1, 20,000

Normal Profit (2023) – 1, 60,000 – 15,000 = 1, 45,000

Normal Profit (2024) – 2, 00,000

Average Profit

$$= \frac{1, 00,000 + 1, 20,000 + 1, 45,000 + 2, 00,000}{4}$$

$$= \frac{5, 65,000}{4}$$

$$= 1, 41,250$$

Goodwill = Average Profit x Two year Profit

$$= 1, 41,250 \times 2$$

$$= 2, 82,500$$

WEIGHTED AVERAGE PROFIT METHOD:-

Q9. Profits of a Firm for the year ended 31st March for the last five years were:

Year Ended	31 st March, 2020	31 st March, 2021	31 st March, 2022	31 st March, 2023	31 st March, 2024
Profits	20,000	24,000	30,000	25,000	18,000

Calculate value of goodwill on the basis of three years purchase of Weighted Average Profit after assigning weights 1, 2, 3, 4 and 5 respectively to the profits for years ended 31st March, 2020, 2021, 2022, 2023 and 2024.

Solution – Weighted Average Profit:

Year	Profit	Weight	Product
2020	20,000	1	20,000
2021	24,000	2	48,000
2022	30,000	3	90,000
2023	25,000	4	1,00,000
2024	18,000	5	90,000
		15	3,48,000

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

Q10. Raman and Daman are partners sharing profits in the ratio of 60:40 and for the last four years they have been getting annual salaries of 50,000 and 40,000 respectively. The annual accounts have shown the following net profit before charging partners salaries:

Year ended 31st March, 2022 – 1, 40,000; 2023 – 1, 01,000 and 2024 – 1, 30,000.

On 1st April, 2024, Zeenu is admitted to the partnership for 1/4th share in profit (without any salary). Goodwill is to be valued at four years purchase of

weighted average profit of last three years (after partners salaries); Profits to be weighted as 1, 2 and 3, the greatest weight being given to the last year.

Calculate the value of Goodwill.

Solution – Actual Normal Profit After

Profit (2022) – 1, 40,000 – (50,000 + 40,000) = 50,000

Profit (2023) – 1, 01,000 – (50,000 + 40,000) = 11,000

Profit (2024) – 1, 30,000 – (50,000 + 40,000) = 40,000

Profit	Weight	Weight of Profit
50,000	1	50,000
11,000	2	22,000
40,000	3	1, 20,000
	6	1, 92,000

$$\text{Weight Average Profit} = \frac{1, 92,000}{6}$$
$$= 32,000$$

$$\text{Goodwill} = 32,000 \times 4 = 1, 28,000$$

SUPER PROFIT METHOD:-

Q11. The capital of the firm of Anuj and Benu is 10, 00,000 and the market rate of interest is 15%. Annual Salary to the partners is 60,000 each. The profit for the last three years were 3, 00,000 3, 60,000 and 4, 20,000. Goodwill of the firm is to be valued on the basis of two years purchase of last three years average super profit. Calculate the goodwill of the firm.

Solution – Salary of both Partners of three year

$$60,000 \times 2 \times 3 \text{ years} = 3, 60,000$$

Average Profit after Salary

$$\begin{aligned} &= \frac{3,00,000 + 3,60,000 + 4,20,000 - (3,60,000)}{3} \\ &= \frac{7,20,000}{3} \\ &= 2,40,000 \end{aligned}$$

Normal Profit = Capital employed x NRR

$$\begin{aligned} &= 10,00,000 \times 15\% \\ &= 1,50,000 \end{aligned}$$

Super profit = average profit - normal profit

$$\begin{aligned} &= 240,000 - 150,000 \\ &= 90,000 \end{aligned}$$

Goodwill = Super Profit x number of year of Purchase

$$\begin{aligned} &= 90,000 \times 2 \\ &= 1,80,000 \end{aligned}$$

Q12. Atul and Bipul had a firm in which they had invested 50,000. On an average, the profits were 16,000. The normal rate of return in the industry is 15%. Goodwill is to be valued at four years purchase of profits in excess of profits @ 15% on the money invested. Calculate the value of goodwill.

Solution – Average Profit = 16,000

Normal Profit = Capital employed x NRR

$$\begin{aligned} &= 50,000 \times 15\% \\ &= 7,500 \end{aligned}$$

Super Profit = Average Profit – Normal Profit

$$\begin{aligned} &= 16,000 - 7,500 \\ &= 8,500 \end{aligned}$$

Goodwill = Super Profit x year of Purchase

$$\begin{aligned} &= 8,500 \times 4 \\ &= 34,000 \end{aligned}$$

Q13. Total capital of the firm of Sakshi, Mehak and Megha is 1,00,000 and the market rate of interest is 15%. The net profits for the last 3 years were 30,000;

36,000 and 42,000. Goodwill is to be valued at 2 years purchase of the last 3 years super profit. Calculate the goodwill of the firm.

Solution –

$$\begin{aligned}\text{Average Profit} &= \frac{30,000 + 36,000 + 42,000}{3} \\ &= \frac{1,08,000}{3} \\ &= 36,000\end{aligned}$$

$$\begin{aligned}\text{Normal Profit} &= \text{Capital employed} \times \text{NRR} \\ &= 1,00,000 \times 15\% \\ &= 15,000\end{aligned}$$

$$\begin{aligned}\text{Super Profit} &= \text{Average Profit} - \text{Normal Profit} \\ &= 36,000 - 15,000 \\ &= 21,000\end{aligned}$$

$$\begin{aligned}\text{Goodwill} &= \text{Super Profit} \times \text{year of Purchase} \\ &= 21,000 \times 2 \\ &= 42,000\end{aligned}$$

Q-14 A and B were partners in a firm sharing equally. Their capitals were: A- ₹ 1,20,000 and B- ₹ 80,000. The annual rate of interest is 20% profits of the firm the last three years were ₹ 34,000; ₹ 38,000 and ₹ 30,000 they admitted C as a new partner. On C's admission the goodwill of the firm was valued at 2 years' purchase of the super profits.

Calculate the value of goodwill of the firm on C' admission.

Solution

$$\text{Goodwill} = \text{No. of years' Purchase} \times \text{Super Profit}$$

$$\text{Super Profit} = \text{Actual profit} - \text{Normal Profit}$$

$$\text{Average Profit} = \text{Average profit of 3 years}$$

Average Profit

$$\frac{34,000 + 38,000 + 30,000}{3} = 3400$$

Normal Profit = 20% of total capital

$$= 20\% \times 2,00,000 = ₹ 40,000$$

Super Profit

$$= 34,000 - 40,000 = - 6,000$$

This firm is having negative super profit. So, no goodwill is Possible.

Q15. A business earned an average profit of 8, 00,000 during the last few years. The normal rate of profit in the similar type of business is 10%. The total value of assets and liabilities of the business were 22, 00,000 and 5, 60,000 respectively. Calculate the value of goodwill of the firm by super profit method if it is valued at 2 ½ years purchase of super profit.

Solution – Average Profit = 8, 00,000

Calculate Capital employed

$$\begin{aligned}\text{Net Assets} &= \text{Total Assets} - \text{Liabilities} \\ &= 22, 00,000 - 5, 60,000 \\ &= 16, 40,000\end{aligned}$$

$$\begin{aligned}\text{Normal Profit} &= \text{Capital employed} \times \text{NRR} \\ &= 16, 40,000 \times 10\% \\ &= 1, 64,000\end{aligned}$$

$$\begin{aligned}\text{Super Profit} &= \text{Average Profit} - \text{Normal Profit} \\ &= 8, 00,000 - 1, 64,000 \\ &= 6, 36,000\end{aligned}$$

$$\begin{aligned}\text{Goodwill} &= \text{Super Profit} \times \text{year of Purchase} \\ &= 6, 36,000 \times 25 \\ &= 15, 90,000\end{aligned}$$

Q16. Average net profit expected in future by XYZ firm is 36,000 per year. Average capital employed in the business by the firm is 2, 00,000. The normal rate of return from capital invested in this class of business is 10%. Remuneration of the partners is estimated to be 6,000 p.a. Calculate the value of goodwill on the basis of two years purchase of super profit.

Solution – Average Profit = 36,000 – 6,000 = 30,000

Normal Profit = Capital employed x NRR

$$= 2, 00,000 \times 10\%$$

$$= 20,000$$

Super Profit = Average Profit – Normal Profit

$$= 30,000 - 20,000$$

$$= 10,000$$

Goodwill = Super Profit x year of Purchase

$$= 10,000 \times 2$$

$$= 20,000$$

Q17. A partnership firm earned net profits during the last three years ended 31st March, as follows:

2022 – 17,000; 2023 – 20,000; 2024 – 23,000

Capital investment in the firm throughout the above-mentioned period has been 80,000. Having regard to the risk involved, 15% is considered to be a fair return on the capital. Calculate value of goodwill on the basis of two years purchase of average super profit earned during the above-mentioned three years.

Solution –

$$\text{Average Profit} = \frac{17,000 + 20,000 + 23,000}{3}$$

$$= \frac{60,000}{3}$$

$$= 20,000$$

Normal Profit = Capital employed x NRR

$$= 80,000 \times 15\%$$

$$= 12,000$$

Super Profit = Average Profit – Normal Profit

$$= 20,000 - 12,000$$

$$= 8,000$$

Goodwill = Super Profit x year of Purchase

$$= 8,000 \times 2$$

$$= 16,000$$

Calculation of average profit ,normal rate of return and capital employed

Q18. On 1st April, 2024, an existing firm had assets of 75,000 including cash of 5,000. Its creditors amounted to 5,000 on that date. The firm had a Reserve of 10,000 while Partners Capital Accounts showed a balance of 60,000. If normal Rate of Return is 20% and goodwill of the firm is valued at 24,000 at four years purchase of Super profit, find average profit per year of the existing firm.

Solution –

Capital employed (Assets side approach) = (Assets – Creditor)

$$= (75,000 - 5,000)$$

$$= 70,000$$

Or

Capital employed (Liabilities side approach) = Capital + Reserve

$$= 60,000 + 10,000$$

$$= 70,000$$

Normal Profit = Capital employed x NRR

$$= 70,000 \times 20\%$$

$$= 14,000$$

Goodwill = Super Profit x No Of year Purchase

Goodwill = (Average Profit – Normal Profit) X no of year purchase

24,000 = (Average Profit – 14,000) x 4

Average Profit – 14,000 = 24,000/4

Average Profit – 14,000 = 6,000

Average Profit = 6,000 + 14,000

Average Profit = 20,000

Q19. Average profit of a firm during the last few years is 2, 00,000 and the normal rate of return in a similar business is 10%. If the goodwill of the firm is 2, 50,000 at 4 years purchase of Super profit. Find the capital employed by the firm.

Solution –

Goodwill = Super Profit x No Of year Purchase

Goodwill = (Average Profit – Normal Profit) X no of year purchase

2, 25,000 = (2, 00,000 – Normal Profit) x 4

2, 50,000/4 = 2, 00,000 – Normal Profit

62,500 = 2, 00,000 – Normal Profit

Normal Profit = 2, 00,000 – 62,500

Normal Profit = 1, 37,500

Normal Profit = Capital employed x No of Year

1, 37,500 = Capital Employed x 10%

Capital Employed = 1, 37,500 x 100

10

= 13, 75,000

20. A business earned an average profit of ₹ 1,80,000 during the last few years. Average capital employed by the firm is ₹ 12,50,000. If goodwill of the firm is valued at ₹ 1,60,000 at 2 years' purchase of super profit, find normal rate of return.

Solution

$$\text{Goodwill} = \text{Super profit} \times 2 \text{ year Purchase}$$

$$16,000 = \text{Super Profit} \times 2$$

$$\text{Super profit} = 160000/2 = ₹ 80000$$

$$\text{Super profit} = \text{Average profit} - \text{Normal profit}$$

$$80000 = 180000 - \text{Normal profit}$$

$$\text{Normal profit} = ₹ 100000$$

$$\text{Normal profit} = \text{Capital Employed} \times \text{Normal rate of return}$$

$$\begin{aligned}\text{Normal rate of return} &= \frac{\text{Normal profit}}{\text{Capital employed}} \\ &= \frac{10,0000}{1,25,0000} \times 100 \\ &= 8\%\end{aligned}$$