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*In memoriam Sabine-Corina*

# **ACCOUNTING**

## **SOLVED PROBLEMS, APPLICATIONS, CASE STUDIES**



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1. The situation before the increase of the share capital is as follows: share capital: 10,000 RON, divided into 10,000 shares; reserves: 8,000 RON. The increase of the share capital by new contributions in cash has been decided, for which 5,000 shares will be issued, at an issue price of 1.2 RON/share. Which is the new mathematical book value (VMC) of a share, the amount of the subscription right (DS), the old shares/new shares ratio and the accounting formula?

**Solution:**

| The situation before the capital increase   |                   | The situation after the capital increase   |                   |
|---|-------------------|--|-------------------|
| ● Share capital   | 10,000 RON        | ● Initial share capital  | 10,000 RON        |
| + Reserves  | 8,000 RON         | + Increase of share capital by nominal value (5,000 shares x 1 RON/share)                  | 5,000 RON         |
| = <b>Owners' equity</b>   | <b>18,000 RON</b> | = <b>New share capital</b>   | <b>15,000 RON</b> |
|   |                   | + Capital premiums (5,000 shares x (1.2 RON/share - 1 RON/share))                          | 1,000 RON         |
|   |                   | + Reserves   | 8,000 RON         |
|   |                   | = <b>Owners' equity</b>  | <b>24,000 RON</b> |
| VN (nominal value) = $\frac{10,000 \text{ RON}}{10,000 \text{ shares}} = 1 \text{ RON/share}$ |                   | VMC = $\frac{24,000 \text{ RON}}{(10,000 + 5,000) \text{ shares}} = 1.6 \text{ RON/share}$ |                   |
| VMC = $\frac{18,000 \text{ RON}}{10,000 \text{ shares}} = 1.8 \text{ RON/share}$              |                   |  |                   |

DS = VMC before increase - VMC after increase  
 DS = 1.8 RON/share - 1.6 RON/share = 0.2 RON/share

$$\frac{\text{old shares}}{\text{new shares}} = \frac{10,000 \text{ shares}}{5,000 \text{ shares}} = 2/1$$

2. The situation before the capital increase is as follows: share capital: 10,000 RON, consisting of 10,000 shares; reserves: 5,000 RON. The increase of the share capital has been decided, by incorporation of reserves worth 2,000 RON, for which 2,000 shares will be issued. Which is the new mathematical book value (VMC) of a share, the amount of the assignment right (DA) and the old shares/new shares ratio?

**Solution:**

| The situation before the capital increase   |                   | The situation after the capital increase   |                   |
|---|-------------------|--|-------------------|
| ● Share capital   | 10,000 RON        | ● Initial share capital  | 10,000 RON        |
| + Reserves  | 5,000 RON         | + Share capital increase by incorporation of reserves  | 2,000 RON         |
| <b>= Owners' equity</b>   | <b>15,000 RON</b> | <b>= New share capital</b>   | <b>12,000 RON</b> |
|   |                   | + Remaining reserves (5,000 – 2,000) RON   | 3,000 RON         |
|   |                   | <b>= Owners' equity</b>  | <b>15,000 RON</b> |
| $\text{VMC} = \frac{15,000 \text{ RON}}{10,000 \text{ shares}} = 1.5 \text{ RON/share}$ |                   | $\text{VMC} = \frac{15,000 \text{ RON}}{(10,000 + 2,000) \text{ shares}} = 1.25 \text{ RON/share}$ |                   |

DA = VMC before the increase – VMC after the increase

DA = 1.5 RON/share – 1.25 RON/share = 0.25 RON/share

$$\frac{\text{old shares}}{\text{new shares}} = \frac{10,000 \text{ shares}}{2,000 \text{ shares}} = 5/1$$

3. The situation before the double increase of the share capital is as follows: share capital: 10,000 RON, divided into 10,000 de shares; reserves: 8,000 RON. The increase of the share capital by double increase has been decided, as follows: in phase I, new contributions in cash, for which 5,000 shares will be issued × 1.2 RON/share issue price; in phase II, incorporation of reserves worth 1,000 RON, for which 1,000 shares will be issued. Which are the distinct amounts of the subscription rights (DS) and assignment rights (DA)?

**Solution:**  
**The situation before  
the capital increase**

**The situation after  
the capital increase**

**PHASE I**

|   |                   |  |                   |
|---|-------------------|--|-------------------|
| ● Share capital   | 10,000 RON        | ● Initial share capital  | 10,000 RON        |
| Reserves  | 8,000 RON         | + Increase of share capital by nominal value (5,000 shares x 1 RON/share)                  | 5,000 RON         |
| <b>= Owners' equity</b>   | <b>18,000 RON</b> | <b>= New share capital</b>   | <b>15,000 RON</b> |
|   |                   | + Capital premiums (5,000 shares (1.2 - 1) RON/share)                                      | 1,000 RON         |
|   |                   | + Reserves   | 8,000 RON         |
|   |                   | <b>= Owners' equity</b>  | <b>24,000 RON</b> |
| $VN = \frac{10,000 \text{ RON}}{10,000 \text{ shares}} = 1 \text{ RON/share}$ |                   | $VMC = \frac{24,000 \text{ RON}}{(10,000 + 5,000) \text{ shares}} = 1.6 \text{ RON/share}$ |                   |
| $VMC = 18,000 \text{ RON} / 10,000 \text{ shares} = 1.8 \text{ RON/share}$    |                   | $DS = 1.8 \text{ RON/share} - 1.6 \text{ RON/share} = 0.2 \text{ RON/share}$               |                   |
|   |                   | <b>PHASE II</b>  |                   |
|   |                   | ● Initial share capital (taken over after the increase of phase I)                         | 15,000 RON        |
|   |                   | + Capital increase by incorporation of reserves  | 1,000 RON         |
|   |                   | <b>= New share capital</b>   | <b>16,000 RON</b> |
|   |                   | + Capital premiums (taken over from phase I)   | 1,000 RON         |
|   |                   | + Remaining reserves (8,000 RON - 1,000 RON)   | 7,000 RON         |
|   |                   | <b>= Owners' equity</b>  | <b>24,000 RON</b> |

**The situation before the capital increase**

**The situation after the capital increase**

$$VMC = \frac{24,000 \text{ RON}}{(15,000 + 1,000) \text{ shares}} = 1.5 \text{ RON/share}$$

$$DA = 1.6 \text{ RON/share} - 1.5 \text{ RON/share} = 0.1 \text{ RON/share}$$

4. The situation before the double increase of the share capital is as follows: share capital: 10,000 RON, divided into 10,000 shares; reserves: 5,000 RON. The increase of the share capital has been decided, as follows: in phase I, incorporation of reserves worth 2,000 RON, for which 2,000 shares will be issued; in phase II, by new contributions in cash, for which 3,000 shares will be issued, at an issue price of 1.00 RON/share. Which are the distinct amounts of the subscription rights (DS) and assignment rights (DA)?

**Solution:**

| The situation before the capital increase  |            | The situation after the capital increase              |            |
|--|------------|---|------------|
|  |            | <b>PHASE I</b>  |            |
| ● Share capital  | 10,000 RON | ● Initial share capital                               | 10,000 RON |
| + Reserves   | 5,000 RON  | + Share capital increase by incorporation of reserves | 2,000 RON  |
| = <b>Owners' equity</b>  | 15,000 RON | = <b>New share capital</b>                            | 12,000 RON |
| $VN = \frac{10,000 \text{ RON}}{10,000 \text{ shares}} = 1 \text{ RON/share}$    |            | + Remaining reserves (5,000 RON – 2,000 RON)          | 3,000 RON  |
| $VMC = \frac{15,000 \text{ RON}}{10,000 \text{ shares}} = 1.5 \text{ RON/share}$ |            | = <b>Owners' equity</b>                               | 15,000 RON |

$$VMC = \frac{15,000 \text{ RON}}{(10,000 + 2,000) \text{ shares}} = 1.25 \text{ RON/share}$$

$$VN = \frac{12,000 \text{ RON}}{(10,000 + 2,000) \text{ shares}} = 1.00 \text{ RON/share}$$

**The situation before  
the capital increase**

**The situation after  
the capital increase**

$$DA = 1.5 \text{ RON/share} - 1.25 \text{ RON/share} = 0.25 \text{ RON/share}$$

**PHASE II**

|   |            |
|---|------------|
| ● Initial share capital (after the increase, taken over from phase I) | 12,000 RON |
| + Capital increase at the nominal value (3,000 shares x 1 RON/share)  | 3,000 RON  |

|   |            |
|---|------------|
| = <b>New share capital</b>                      | 15,000 RON |
| + Remaining reserves, (taken over from phase I) | 3,000 RON  |

|                         |            |
|-------------------------|------------|
| = <b>Owners' equity</b> | 18,000 RON |
|-------------------------|------------|

$$VMC = \frac{18,000 \text{ RON}}{(12,000 + 3,000) \text{ shares}} =$$

**1.2 RON/share**

$$DS = 1.25 \text{ RON/share} - 1.2 \text{ RON/share} = 0.05 \text{ RON/share}$$

5. The situation before the double increase in capital is as follows: share capital: 10,000 RON, divided into 10,000 shares; reserves: 5,000 RON. The double increase of the share capital has been decided, by incorporation of reserves worth 2,000 RON, for which 2,000 shares will be issued and, at the same time, by new contributions in cash, for which 3,000 shares will be issued, at an issue price equal to the nominal value. Which are the distinct amounts of the subscription rights (DS) and assignment rights (DA)?

**Solution:**

**The situation before  
the capital increase**

**The situation after  
the capital increase**

|                 |            |   |            |
|-----------------|------------|---|------------|
| ● Share capital | 10,000 RON | ● Initial share capital                               | 10,000 RON |
| + Reserves      | 5,000 RON  | + Share capital increase by incorporation of reserves | 2,000 RON  |

**The situation before  
the capital increase**

**The situation after  
the capital increase**

|  |           |
|--|-----------|
| + Capital increase at the nominal value (3,000 shares x 1 RON/share) | 3,000 RON |
|--|-----------|

**The situation before the capital increase**
**The situation after the capital increase**

**Owners' equity** 15,000 RON  

$$VN = \frac{10,000 \text{ RON}}{10,000 \text{ shares}} = 1 \text{ RON/share}$$

$$VMC = \frac{15,000 \text{ RON}}{10,000 \text{ shares}} = 1.5 \text{ RON/share}$$

**New share capital** 15,000 RON  
 + Remaining reserves (5,000 RON – 2,000 RON) 3,000 RON  


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**Owners' equity** 18,000 RON  

$$VMC = 18,000 \text{ RON} / 15,000 \text{ shares} = 1.2 \text{ RON/share}$$

$(DS + DA) = \text{old VMC} - \text{new VMC} = 1.5 \text{ RON/share} - 1.2 \text{ RON/share} = 0.3 \text{ RON/share}$

For DA:  $\frac{\text{old shares}}{\text{new shares}} = \frac{10,000 \text{ shares}}{2,000 \text{ shares}} = 5/1$

$$DA = \frac{\text{new VMC}}{\text{ratio}} = \frac{1.2 \text{ RON/share}}{5} = 0.24 \text{ RON/share}$$

$DS = 0.3 \text{ RON/share} - 0.24 \text{ RON/share} = 0.06 \text{ RON/share}$

**6.** Given the following data: subscribed share capital unpaid: 50,000 RON; subscribed share capital paid in: 10,000 RON; issue premiums: 2,000 RON; bond-to-share conversion premiums: 1,000 RON; reevaluation reserves (credit balance): 9,000 RON; legal reserves: 6,000 RON; retained earnings (debit balance): 8,000 RON; financial year result (credit balance): 5,000 RON; profit distribution: 5,000 RON; subsidies for investments: 3,000 RON. According to the Order of Public Finance Minister (OMFP) no. 1802/2014, which is the amount of the owners' equity?

**Solution:**

|   |  |                   |
|---|--|-------------------|
| ● | Subscribed share capital unpaid        | 50,000 RON        |
| + | Subscribed share capital paid in       | 10,000 RON        |
| + | Issue premiums                         | 2,000 RON         |
| + | Bond-to-share conversion premiums      | 1,000 RON         |
| - | Reevaluation reserves (creditor)       | 9,000 RON         |
| + | Legal reserves                         | 6,000 RON         |
| - | Retained earnings (debit balance)      | - 8,000 RON       |
| + | Financial year result (credit balance) | 5,000 RON         |
| - | Profit distribution                    | - 5,000 RON       |
| = | <b>Owners' equity</b>                  | <b>70,000 RON</b> |

7. A company has a share capital of 80,000 RON, legal reserves: 16,000 RON, other reserves: 4,000 RON, number of shares: 20,000 certificates. From the previous years, losses amounting to 40,000 RON were carried over. The Extraordinary General Assembly has decided a reduction of the owners' equity, in order to cover the loss carried over. The new nominal value of a share, established following the capital reduction, should not be lower than 2.8 RON/share. Which is the book entry for the capital reduction?

**Solution:**

|                               |                     |              |
|-------------------------------|---------------------|--------------|
| ●                             | Share capital       | 80,000 RON   |
| +                             | Legal reserves      | 16,000 RON   |
| +                             | Other reserves      | 4,000 RON    |
| -                             | Losses carried over | - 40,000 RON |
| = <b>Total owners' equity</b> |                     | 60,000 RON   |

$$\text{VMC} = \frac{60,000 \text{ RON}}{20,000 \text{ shares}} = 3.00 \text{ RON/share.}$$

The new nominal value of a share, established following the capital reduction, is 2.80 RON/share. The difference of 20,000 shares x (3.00 RON/share – 2.80 RON/share) = 4,000 RON will be accounted to the legal reserve. The accounting formula is the following:

|                          |      |   |     |            |
|--------------------------|------|---|-----|------------|
|                          | %    | = | 117 | 40,000 RON |
| 4,000 RON                | 1068 |   |     |            |
| 12,000 RON               | 1061 |   |     |            |
| (16,000 RON - 4,000 RON) |      |   |     |            |
| 24,000 RON               | 1012 |   |     |            |

8. 1,000 bonds are redeemed and cancelled, under the following conditions: nominal value: 2 RON/bond; redemption price: 1.5 RON/bond. Specify the book entries for the bond redemption and cancellation.

**Solution:**

1. Bond redemption with the redemption price of 1,000 bonds x 1.5 RON/bond = 1,500 RON:

|           |     |   |      |           |
|-----------|-----|---|------|-----------|
| 1,500 RON | 505 | = | 5121 | 1,500 RON |
|-----------|-----|---|------|-----------|

2. Bonds cancellation (the debenture loan decreases by the nominal value of the bonds, 1,000 bonds x 2 RON/bond):

|           |     |   |     |           |
|-----------|-----|---|-----|-----------|
| 2,000 RON | 161 | = | %   |           |
|           |     |   | 505 | 1,500 RON |
|           |     |   | 768 | 500 RON   |

9. A company has a share capital of 24,000 RON, reserves: 6,000 RON, subsidies for investments: 200 RON, number of shares: 3,000 certificates. An increase of the share capital has been undertaken, by issuing 1,500 new shares,

the issue value being equal to the mathematical book value of the old shares. Which is the mathematical book value of the new shares, the issue premium and the appropriate accounting formula for the capital increase?

**Solution:**

| The situation before the capital increase |            | The situation after the capital increase                               |                |
|---|------------|--|----------------|
| ● Share capital                           | 24,000 RON | ● Initial share capital  | 24,000 RON     |
| + Reserves                                | 6,000 RON  | + Share capital increase by nominal value (1,500 shares x 8 RON/share) | 12,000 RON     |
| = <b>Owners' equity</b>                   | 30,000 RON | = <b>New share capital</b>   | 36,000 RON     |
|   |            | + Capital premiums (1,500 shares (10 RON/share – 8 RON/share))         | 3,000 RON      |
|   |            | + Reserves   | 6,000 RON      |
|   |            | = <b>Owners' equity</b>  | 45,000 RON     |
|   |            | VMC = $\frac{45,000 \text{ RON}}{(3,000 + 1,500) \text{ shares}}$      | = 10 RON/share |

$$VN = \frac{24,000 \text{ RON}}{3,000 \text{ shares}} = 8.0 \text{ RON/share}$$

$$VMC = \frac{30,000 \text{ RON}}{3,000 \text{ shares}} = 10 \text{ RON/share}$$

$$15,000 \text{ RON} \quad 456 \quad = \quad \% \quad \begin{matrix} 1011 & 12,000 \text{ RON} \\ 1041 & 3,000 \text{ RON} \end{matrix}$$

10. 8,000 bonds are converted into 3,000 shares, provided the nominal value of a bond is 1.00 RON and the nominal value of a share is 1.70 RON. Specify the book entry for the operation above.

**Solution:**

The subscribed share capital paid-in increases by the nominal value of the shares issued: 3,000 shares x 1.70 RON/share = 5,100 RON.

The debenture loan diminishes by the nominal value of the bonds converted into shares: 8,000 bonds x 1.00 RON/bond = 8,000 RON.

The bond-share conversion premium = 8,000 RON – 5,100 RON = 2,900 RON.

The accounting formula is the following:

$$\begin{array}{rcl}
 8,000 \text{ RON} & 161 & = & \% \\
 & & & 1012 & 5,100 \text{ RON} \\
 & & & 1044 & 2,900 \text{ RON}
 \end{array}$$

11. Suppose a company has a share capital of 15,000 RON, issue premiums: 1,000 RON, reserves: 6,000 RON, subsidies for investments: 200 RON, retained earnings (loss): 4,000 RON, number of shares: 6,000. The increase of the share capital has been decided, by incorporating part of the existing reserves, worth 5,000 RON, for which 2,000 shares will be issued. In such situation, which is the old and the new mathematical book value of a share, the theoretical amount of the assignment right (DA) and the accounting formula?

**Solution:**

| The situation before the capital increase |             | The situation after the capital increase                          |                       |
|---|-------------|---|-----------------------|
| ● Share capital                           | 15,000 RON  | ● Initial share capital   | 15,000 RON            |
| + Issue premiums                          | 1,000 RON   | + Share capital increase by incorporation of reserves             | 5,000 RON             |
| + Reserves                                | 6,000 RON   | = <b>New share capital</b>  | 20,000 RON            |
| - Retained earnings (loss)                | - 4,000 RON | + Remaining reserves: (6,000 – 5,000) RON                         | 1,000 RON             |
| = <b>Owners' equity</b>                   | 18,000 RON  | + Issue premiums  | 1,000 RON             |
|   |             | - Retained earning (loss)   | - 4,000 RON           |
|   |             | = <b>Owners' equity</b>   | 18,000 RON            |
|   |             | VMC = $\frac{18,000 \text{ RON}}{(6,000 + 2,000) \text{ shares}}$ | =                     |
|   |             | <b>3 RON/share</b>  | <b>2.25 RON/share</b> |

DA = 3 RON/share – 2.25 RON/share = 0.75 RON/share

$$\begin{array}{rcl}
 5,000 \text{ RON} & 106 & = & 1012 & 5,000 \text{ RON}
 \end{array}$$

12. Given the following information: share capital: 20,000 RON; financial year result (profit): 4,000 RON; profit distribution: 4,000 RON; reserves: 5,000 RON, long-term bank credits: 1,000 RON; retained earnings (loss): 3,000 RON; debenture loans: 14,000 RON; current commercial debts: 7,000 RON; using the Order of the Public Finance Minister (OMFP) no. 1802/2014, determine the amount of the owners' equity and of the permanent capitals.

**Solution:**

|   |                          |                   |
|---|--------------------------|-------------------|
| ● | Share capital            | 20,000 RON        |
| + | Profit                   | 4,000 RON         |
| - | Profit distribution      | -4,000 RON        |
| + | Reserves                 | 5,000 RON         |
| - | Retained earnings (loss) | -3,000 RON        |
| = | <b>Owners' equity</b>    | <b>22,000 RON</b> |
| + | Long-term debts          | 1,000 RON         |
|   | Long-term bank credits   |                   |
|   | Debenture loans          | 14,000 RON        |
| = | <b>Permanent capital</b> | <b>37,000 RON</b> |

13. Suppose a company has a share capital of 30,000 RON, other reserves: 6,000 RON, retained earnings: 1,000 RON, number of shares: 12,000. The reduction of the share capital has been decided, by redeeming and canceling 20% of the number of shares issued; the redemption price for a share is 3 RON/share. Which are the sums and the appropriate book entries for these operations?

**Solution:**

The number of shares by which the capital is reduced: 12,000 shares x 20% = 2,400 shares

The subscribed capital paid-in is reduced by the nominal value

( $\frac{30,000 \text{ RON}}{12,000 \text{ shares}} = 2.5 \text{ RON/share}$ ): 2,400 shares x 2.5 RON/share = 6,000 RON.

The owners' equity will be redeemed and cancelled with the redemption price: 2,400 shares x 3 RON/share = 7,200 RON.

The accounting formula is the following:

|           |      |   |      |           |
|-----------|------|---|------|-----------|
| 7,200 RON | 109  | = | 5121 | 7,200 RON |
|           | %    | = | 109  | 7,200 RON |
| 6,000 RON | 1012 |   |      |           |
| 1,200 RON | 149  |   |      |           |

14. Suppose that a company has a share capital of 5,000 RON, reserves: 1,000 RON, capital premiums: 1,000 RON, number of shares: 2,000 certificates.