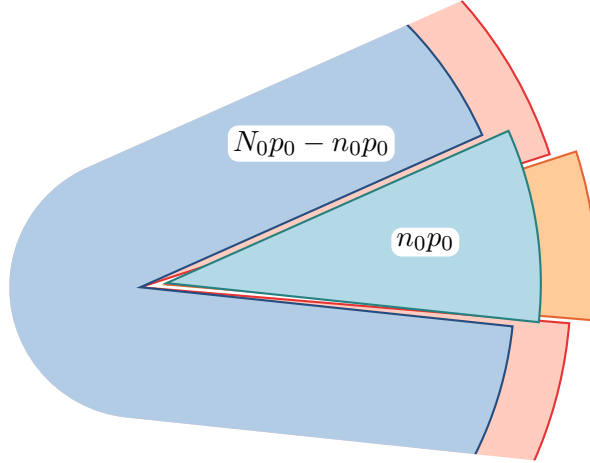


# On Rights Issue Shares

Paul Kotschy

19 November 2013

Compiled on July 2, 2025



**I**N THE EVENT OF A RIGHTS ISSUE,<sup>1</sup> a company seeks to raise additional working capital through the issuance of additional shares in the company. But by issuing additional shares, those shares already owned by existing shareholders become diluted in the larger pool of shares. This dilution might result in an erosion of existing shareholder value. So to help reduce this risk faced by shareholders, the company may elect to first offer additional shares to shareholders at a discounted value. That is, the company might give existing shareholders the right to purchase shares at a discount.

During the execution of a rights issue, the two interested parties are the company itself and the group of existing shareholders. I shall perform an analysis here from the perspective of these two parties.

**Before.** Suppose that just before the rights issue, the company's market capitalisation is  $V_0$ , and that there are  $N_0$  ordinary shares held by the company's shareholders. The price per share before the issue is obviously then

$$p_0 = \frac{V_0}{N_0} \quad (1)$$

Suppose, too, that before the issue, an individual shareholder owns  $n_0$  shares in the company, and that he/she also has an amount  $v_R$  available with which he/she may participate in the issue. That is, the shareholder's value pertaining to the affairs of the company just before the rights issue is

$$v_0 = n_0 p_0 + v_R$$

**During.** By issuing additional shares in the company, the company intends increasing its working capital by an amount  $V_R$ , say. And it does this by issuing an additional  $N_R$  shares. But the company first honours each existing shareholder's right to purchase  $n_R$  additional shares each valued at  $p_R$ , say. If a shareholder chooses to exercise that right, then the shareholder will use his/her available  $v_R$  amount to purchase these  $n_R$  shares. And so the shareholder's value just before any additional shares are offered to non-shareholders is

$$v_0 = n_0 p_0 + n_R p_R$$

---

<sup>1</sup>I declare this to be my own work, entirely. In particular, no AI was used in any research, analysis, synthesis, writing, nor typesetting of this work. In short, AI was not recruited at any time in this work. Errors and inaccuracies are therefore proudly my own.

**After.** Following the issuance of additional shares to both existing shareholders and new shareholders, the company's market capitalisation increases to  $V_0 + V_R$ , there are now  $N_0 + N_R$  outstanding shares, and the price per share after the rights issue is then

$$p_1 = \frac{V_0 + V_R}{N_0 + N_R} \quad (2)$$

If a shareholder did in fact exercise his/her right by purchasing the  $n_R$  shares, then immediately after the issuance of shares to non-shareholders, his/her value pertaining to the affairs of the company changes from  $v_0$  in (1) to

$$v_1 = (n_0 + n_R)p_1(V_R)$$

How will individual shareholders be impacted by the issuance of additional company shares? The shareholder's value change will be

$$\Delta v = v_1 - v_0 = (n_0 + n_R)p_1 - n_0p_0 - n_Rp_R$$

To mitigate the risk of erosion of shareholder value, the company offers to set the value for  $p_R$  such that  $\Delta v$  remains positive. That is  $p_R$  satisfies

$$p_R(V_R) \leq \frac{n_0 + n_R}{n_R}p_1(V_R) - \frac{n_0}{n_R}p_0 \quad (3)$$

Or stated explicitly in terms of the anticipated increased working capital,  $V_R$ , using (1) and (2)

$$p_R(V_R) \leq \frac{1}{n_R} \left( \frac{n_0 + n_R}{N_0 + N_R} - \frac{n_0}{N_0} \right) V_0 + \frac{1}{n_R} \left( \frac{n_0 + n_R}{N_0 + N_R} \right) V_R$$

**Example.** Suppose that a company's initial market capitalisation equals 1000 currency units ( $V_0 = 1000$ ), and that there are 100 outstanding shares ( $N_0 = 100$ ). The company would like to increase its working capital by 250 currency units ( $V_R = 250$ ). So the company declares a rights issue with 30 additional shares ( $N_0 = 30$ ). An existing individual shareholder already owns 10 shares in the company ( $n_0 = 10$ ). In the rights issue, the company offers to sell the shareholder 3 additional shares ( $n_R = 3$ ). So applying (1), (2) and (3), the price per share before the rights issue is  $p_0 = 10$ . The price per share after the rights issue is  $p_1 = 9.61$ . And to mitigate the risk of erosion of the shareholder's value, the company must offer to sell the 3 shares to the shareholder at the price per share  $p_R \leq 8.33$ .