

BUDGETING AND CONTROLLING (PART 23): ROX-RATIOS (2)



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As described in the last article of the series Budgeting and Controlling (BTV Unternehmen 2-2005) the operating return or profitability resp of enterprises shall be presented with the support of ROX-ratios. Each ROX-ratio represents return (R) or profit from the profit and loss account resp, in relation to (on = O) a certain impacting factor X.

Apart from the question that was dealt with in the last article, which profit is used for determining ratios (profit from the operative business of the enterprise, profit from the total business activity including financial result, profit before or after considering interest, profit before or after tax), the question arises which impacting factor X shall be incorporated into the calculation of the respective ROX-ratio.

Apart from the ratio ROS which sets the profit from the profit and loss account in relation to the turnover from the profit and loss account, certain values from the balance sheet are compared to the profit from the profit and loss account in the framework of the calculation of ROX-ratios.

The values from the balance sheet which are used for the calculation of the ratios can either be taken from the assets or the liabilities side of the balance sheet. Depending on the side that was used as a source of the respective balance sheet values, the respective ratios must be interpreted either assets-oriented or capital-oriented.

The ratio ROI (Return on Investment, return on total capital) and ROE (Return on Equity) are the best known ROX-ratios that are determined based on values from the balance sheet and refer to the total or own capital resp employed in the enterprise.

Further ratios which have been used more and more frequently recently, are followed by an "A" or a "C" after the "RO". The "A" stands for "Assets" the asset values in this term, the "C" for "Capital", the capital values of the enterprise.

Like that the ratios ROA, ROFA and ROTA are determined based on the assets side of the balance sheet, the ratios ROCE and ROACE, however, are calculated based on the capital side of the balance sheet.

According to the characteristic feature of the respective ratio either the total assets or capital values of the balance sheet are incorporated into the calculation of the ratio (usually used for

ROTA and ROI), or only certain parts of the asset or capital side of the balance sheet are used for determining the respective ratio.

Apart from the source or derivation of the respective ratio from the asset or capital side of the balance sheet, it must be taken into consideration whether only the respective amount of assets or capital values are used as a basis or if the development of the amounts in the course of time is also incorporated into the calculation of the ratio.

These themes result from using flow values (the profit from the profit and loss account) in the formulas for the ROX-ratios (except the ratio ROS) on the one hand and stock values (the respective stock of assets or capital values from the balance sheet) on the other hand.

Whenever flow and stock values are set against each other, a decision must be made whether solely the opening stock of the respective stock value is to be taken into account or if the development of this stock in the course of time shall be incorporated into the review. If the development of the stock in the course of time is incorporated this can be done by determining average values of the respective stock and so the average assets or capital employed in the course of a year is considered.

In the framework of compiling average values the question arises which stock is to be incorporated into the calculation of these average values at what time. If there is a continuous or linear development of stock in the course of a business year it might mostly be sufficient to compile the average value of the opening stock from the opening balance sheet and the final stock from the final balance sheet. Should the respective stock, however, fluctuate during the year it will be valuable for exact calculations to compile the average of several stock values (eg from quarterly stock or even monthly stock) to achieve a reliable information on the average assets and capital employed.

In the following articles of the series Budgeting and Controlling, the background and the different ways of compiling and interpreting the various ROX-ratios will be dealt with in more detail.

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