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FINANCIAL STATEMENTS FORECAST

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Abstract: *This article focuses on theoretical aspects and practical examples for establishing the value of financial statements using percent-of-sale method. The financial statements are a result of the financial forecast made by the company, mainly those related to the evolution of the turnover and the changes in the external environment and of the hypothesis based on the correlations that can be established between the balance sheet items and the turnover. The calculations performed, based on different working hypotheses, have the consequence of establishing funds demands/surplus, as well as some possible ways of attracting new resources or using the new funds. The first hypothesis considers the direct correlation between fixed assets, current assets, total debts and the evolution of the turnover. The second hypothesis starts from the premises that only the debts of the suppliers are directly correlated with the turnover. The third hypothesis is that, within the limits of production/performance capacity, the turnover can be changed without changes in the volume of fixed assets. We determined in all three hypotheses the gap of assets and liabilities and consequently established the additional funds demand specifying possible sources of coverage or the surplus and how to use it. The purpose was to establish the consequences for each case.*

Keywords: Forecast, Balance Sheet, Percent-of-Sale Method, Funds Demand/Surplus.

1. Introduction

For carrying out its economic undertaking, any company has to provide periodically, generally on an annual basis, the synthetic balance sheet, which should assess, following accounting rules, the capital used and drawn, as well as the income and the expenses due to the period.

The accounting information as provided shall be subject to some concepts, methods, rules and procedures which shall ensure their comparability in time (time pull-down) and space (space pull-down).

This information shall meet the needs and interests of various internal or external users of the company.

For managers, as internal users of accounting information, both the processed data regarding the past undertaking, as well as the estimated or forecast values of the financial indicators are useful.

For this purpose, the forecast may use various methods, such as the percent-of-sale method, statistical methods, simulation methods, the sensitivity analysis, the budgets method, subjective methods (based on expert opinions), hybrid or combined methods.

We consider that for the short-time appreciation of the values from the balance sheets indicators, it is possible to successfully use the percent-of-sale method. The work hypothesis is that the size of certain balance sheet positions depends on the evolution of the trading turnover and a constant relation between them and the sales is preserved within the limits of the production/services providing capacity.

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Precisely, each company shall analyze in detail these positions and shall determine, upon each financial statement, the spread compared to the forecast values and the effect of the new conditions on the undertaking.

Working stages:

1. Establishing the profit and loss account and of the initial financial statement,
2. Calculation of the profit margins and the profit rates,
3. Establishing the manner of allocating the net profit amid self-financing (reinvesting) and compensating the shareholders by dividends,
4. Expressing the balance sheet positions as percentage of the trading turnover,as in [1] and [2],
5. Drafting the forecast or pro-forma balance sheet.

2. Comparativ examples

For the application of the method we propose the following indicators and values (example for the year N):

1.Trading turnover$100.000
2. Cost of sales (80%) $80.000
3. Gross margin $20.000
4. Gross margin ratio 20%
5. Other expenses$6.000
6. Gross profit $14.000
7. Tax on profit (16%) $2.240
8. Net profit and loss account $11.760
9.Net margin ratio 11,76%
10. Proposed dividends (25%)$2.940
11. Net profit for investments $8.820

Note: profit for the year = trading turnover× net margin ratio× development profit allotment weight.

The financial statement of year N of the company subject to analysis is:

Total Assets: $50.000= fixed assets ($20.000)+current assets ($30.000).

Total Liabilities $50.000= share capital ($1.000)+ reserves ($200)+ profit for the year ($8.820)+ current liabilities ($39.980).

Thus, the balance sheet positions correlated with the trading turnover are as follows: fixed assets 20%, current assets 30%, profit for the year (see the calculation formula 1) and current debts 39,98%.

2.1.Case 1

The analysis of the past undertaking shows that the fixed assets, the current assets and the liabilities vary in relation to the trading turnover, while the share capital and the reserves do not change along with the trading turnover.

If the trading turnover for next year is estimated to be $150.000, the forecast balance sheet shall be as follows:

Fixed assets: $150.000×20%=$30.000
Current assets:$150.000× 30% = $45.000
Total assets $75.000
Share capital$1.000
Reserves $200
Profit $8.820+**x**= $22.050
Debts $59.970
Total liabilities $75.000
The funds demand/surplus (FD/S) -$8.820,
Where **x** (profit of the year) =

$$x = \Delta Tt \times nmr\% \times i\% \quad (1)$$

With △Tt= increasing the Trading turnover, nmr= net margin ratio, i= net profit for investment ratio:

x = $150.000×11,76% ×(100-75)%= $13.230,

Notes:

1. The forecast values of the balance sheet positions can also be calculated by the relation:

Initial value × trading turnover index. So the profit of the year = x =$8.820 ×1,5 =$13.230.

2. The calculation of the additional resources can also be made in a manner other than using the forecast balance sheet, namely using the relation, as in [3]:

$$FD/S = \frac{TA}{Tt} \times \Delta Tt - \frac{CL}{Tt} \times \Delta T - Tt1 \times nmr \times 75\% \quad (2)$$

where
FD/S= 0,5×$50.000 -0,3998×$50.000 - $13.230 = 0,1002×$50.000-$13.230 = $5.010-$13.230 =$8.220,
Or
=$25.000-$19.990- $13.230 = - $8.220,
(increasing the assets – increasing the liabilities – development generated profit).
In conclusion, the following gaps were obtained:
Asset increase=$75.000-$50.000= $25.000
Profit of the year=$13.230
Debt increase= $59.970-$39.980=$19.990
Total additional resources=
$13.230+$19.990=$33.220.
Therefore, for the turnover to grow from $100.000 to $150.000, the company will have to increase its assets by $25.000.
The funds that finance this increase come from the profit of the year by $13.230, the spontaneous increase of the debt by $19.990, which means $33.220.
The surplus by $8.220 can be used for the payment of some debts or for the granting of dividend income.

2.2.Case 2

The estimation has considered a constant dynamics of all liabilities in relation to the trading turnover. However, if some of the short-term liabilities, such as those towards suppliers, go up once with the trading turnover increase, the obligations towards employees and other creditors, including drawing long-term additional resources (bank loans for instance) are not perfectly conditioned by the sales dynamics.
The calculation shows that the weight of suppliers within the total liabilities is 30%, amounting therefore to $11.994.
The outcome is a future liability of $150.000×39,98%×30% = $17.991
or
$15.992×1,5 = $17.991.
Under these circumstances, the forecast balance sheet is the following:
Total Assets: $75.000=fixed assets ($150.000×20%=$30.000) + current assets (($150.000 × 30% =$45.000).
Total Liabilities $75.000= share capital ($1.000) + reserves ($200) + profit $22.050)+debts correlated with the sales (towards suppliers $17.991) + other debts ($27.986).

$$FD/S = \frac{TA}{Tt} \times \Delta Tt - \frac{CL}{Tt} \times 0{,}3 \times \Delta Tt - Tt1 \times nmr \times 75\% \quad (3)$$

So

FD/S=0,5 ×$50.000 -0,3998×0,3×$50.000 - $13.230 = $5.773 lei
or
$25.000 – $5.997 – $13.230
= $5.773
(increasing the assets – increasing the liabilities – development generated profit)
In this case, the company shall need additional resources of $5.773. This value must be financed from external sources, such as the issue of supplementary shares, bank credits or combinations thereof, or internal sources as all the net profit of the year (an amount equal to $4.410 which is not paid as dividends).

2.3.Case 3

A company having reserves in using its production/performance capacity shall not alter the investment in fixed assets once with the sales increase, therefore altering only the current assets once with the trading turnover.
Given the same data of the second hypotheses the forecast balance sheet shall be as follows:
Total Assets $65.000= fixed assets ($20.000) + current assets (including the liquidity assets $150.000×1,5=$45.000).
Total Liabilities $65.000= share capital ($1.000)+ legal reserve ($200)+ (profit $22.050)+ debts towards suppliers ($11.994× 1,50 = $17.991)+ other debts (=39.980-0.3 × 39.980 =$27.986).
The surplus: $4.227
As in the first case, a surplus of resources of $4.227 will be generated, which can be used for investments, remuneration of creditors, remuneration of shareholders.

3. Final conclusions:

Using this method provides data easily and fast, but its reliability depends on the working information who estimates the future evolution of the company.

It is reasonable that this hypothesis and calculations to be reviewed periodically, which allows managers to act in time to ensure optimal conditions of activity.

The methods work for short-term forecasts.

We consider that an analysis of the difference between the forecast data and the actual ones for each analysis period shall lead to developing a hypotheses system which could determine a better forecast of the future values due to financial indicators, as well as a practical aid for the management.

References

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