

## Case study 25

### Forecast 2005 and segment-supported group plan 2006 BASF Group 2005/2006 (schematic case study)

#### Starting point:

BASF is the world's leading chemical company. Its portfolio ranges from chemicals, plastics, performance products, agricultural products and fine chemicals to crude oil and natural gas. In 2004, BASF had approximately 82,000 employees and posted sales of more than €37 billion.

Basis for the simulations is the published financial information for the years 2002-2004 as well as the third-quarter results 2005. With its unique algorithm the software ASRAP is capable of generating a consistent accounting system (planned P&L, balance sheets, cashflows, ratios) for the future from unlinked user-inputs. Two examples will show how this works.

#### Example 1 BASF Group – Forecast 2005

##### Establishment of pension fund and share buyback

On October 17th BASF announced, that it will transfer about €3.7 billion into a CTA (Contractual Trust Arrangement) by the end of 2005 to finance the pension obligations of BASF AG. Furthermore it will repurchase shares in the value of €1.5 billion (until Sep 30th 2005 about €1 billion of shares have been repurchased).

First a forecast for the full year 2005 will be generated with ASRAP by varying the 9-month data. In a second variation the transfer into the CTA will be simulated and the third step will include the continuing buyback of shares. It takes about 10 minutes to do the simulations.

#### Overview of the important assumptions/inputs:

Tab. 1 (in Million Euro)

	Forecast	Pension fund	buyback
Revenues*	41.366,0	41.366,0	41.366,0
Capital expenditures in PPE *	1.713,0	1.713,0	1.713,0
C.Add. paid-in capital #	-1.021,0	-1.021,0	-1.500,0
Income tax/Total profit %	50,0%	50,0%	50,0%
Depreciation PPE/Amortization *	2.217,0	2.217,0	2.217,0
Use of provisions #	0	3.700,0	3.700,0

\* 9-month-value multiplied by 4/3

# green values selected by ASRAP system-preference as in the third-quarter report

All plan-assumptions are stored in the input. They are distinguished between user-specified inputs (**blue**) and system-preferences (**green**). Using the function vary several times will accumulate the user-inputs, as these scenarios are building upon each other. That means for the last model only the value for the position "C.Add. paid-in capital" has to be entered.

## Selected results/output:

Tab. 2 (in Million Euro)

	<b>9-month</b>	<b>Forecast</b>	<b>Pension fund</b>	<b>buyback</b>
Stockholders equity	18.003,0	18.654,5	18.631,2	18.149,2
Equity ratio	47,3%	48,2%	53,3%	52,7%
Net debt	-432,0	-1.209,5	2.513,8	2.995,8
Free cash flow	2.565,0	3.342,5	-380,8	-862,8
Income after taxes	2.546,0	3.197,5	3.174,2	3.171,2

The EBIT increases by 20% to €6.2 billions from 2004 to 2005. It is the same in all three models. The income after taxes grows to more than 3.1 billion. It is different for all the models because the simulated interest income and the income taxes are different. The transfer of money into the CTA makes the equity ratio go up by more than 5 points (IFRS page 5/line 09). Compared to the forecast the two steps together lead to a net debt of about €3 billion (IFRS page 5/line 11), which is a rise of €4.2 billion. Still, both measures can be paid from the liquid assets, which will decrease from 4.9 billion (forecast) to 700 million (buyback). See IFRS p.3/l. 31.

## Example 2 – Segment bottom-up Group plan 2006

### Schematic case study with growing revenues, investments and depreceation

Planning the year 2006 is now done bottom-up, starting from the separate, operative Segments. The actual segment-data (revenues, EBIT, assets, investments and depreciation) was taken from the segment report following IAS 14. These few operative parameters are sufficient for simulations with ASRAP. The unlinked inputs (**blue** = user-specified, **green** = system-preference) in table 3 lead to a full-value financial statement with segment result, segment assets and cashflows.

### Overview of the important inputs for planning the segments:

Tab. 3 (in Million Euro)

	<b>Sum operat.</b>	<b>Chemic.</b>	<b>Plast.</b>	<b>Perfor.</b>	<b>Agricul.</b>	<b>Oil+Gas</b>	<b>Other</b>
Revenues	<b>5,1%</b>	<b>10,0%</b>	<b>9,0%</b>	<b>1,0%</b>	<b>1,0%</b>	<b>2,5%</b>	<b>0,0%</b>
Expenses-Income *	<b>80,3%</b>	<b>75,0%</b>	<b>88,0%</b>	<b>83,0%</b>	<b>78,0%</b>	<b>60,0%</b>	<b>124,7%</b>
Capital expenditure	<b>2.092,0</b>	<b>500,0</b>	<b>550,0</b>	<b>300,0</b>	<b>150,0</b>	<b>500,0</b>	<b>92,0</b>
Depreciation	<b>2.280,0</b>	<b>550,0</b>	<b>500,0</b>	<b>330,0</b>	<b>330,0</b>	<b>450,0</b>	<b>120,0</b>

\* relating to Revenues (Input p. 1/l. 11 und Output p. 1/l. 17)

After the single segments are planned, they are plan-consolidated into the sum of the operative business. Table 3 shows the inputs of the segments and the resulting sum of the operative business. The total revenues increase by 5.1% and the depreciation (Input p. 4/l. 07) is at €2.3 billion slightly higher than the investments at about 2 billion (Input p. 2/l. 05).

Planning the operative segments and aggregating them into the operative business already gives us the Group-EBIT for 2006. Compared to scenario buyback 2005 it decreases to €6.2 billion (IFRS p. 1/l. 09). Interestingly the EBIT in the oil+gas segment contributes with 2.3 billion more than a third to the total group EBIT.

## Selected results of planning the segments/Output:

Tab. 4 (in Million Euro)

	Sum operat.	Chemic.	Plast.	Perfor.	Agricul.	Oil+Gas	Other
Operating result (EBIT)	6.267,6	1.610,4	1.013,9	1.069,2	803,7	2.349,1	-578,6
Change to 2005	0,8%	17,3%	-5,9%	12,1%	6,7%	6,3%	-1,6%
EBIT-Margin*	14,4%	18,6%	8,0%	13,0%	15,6%	33,6%	-31,2%
Free cash flow	6.455,6	1.660,4	963,9	1.099,2	983,7	2.299,1	-550,6

\* relating to Revenues (Output p. 3/l. 22)

In a second step the planned consolidated financial statements of the group are constructed. To do this all the non-operative plan-values (which are not part of the segment-inputs) have to be added. In this example these are: result from affiliated companies, interest for pensions, capital addition (buyback), dividends and the tax rate (see on right). Also to keep the example simpler the working capital is planned with constant values of the previous year.

Tab. 5 (in Million Euro)

	Group
Income investments in other comp.	<b>300,0</b>
Other financial income	<b>-50,0</b>
C.Add. paid-in capital	<b>-1.500,0</b>
Capital distribution (dividends)	<b>945,0</b>
Income tax	<b>50,0%</b>

## Selected results group plan/Sum operative

Tab. 6 (in Million Euro; % Change to previous year)

		Group		Sum operative
Revenues	5,1%	43.495,4	5,1%	43.495,4
Operating result (EBIT)	0,8%	6.267,6	0,8%	6.267,6
Non-operating result	-58,2%	52,3	0,0%	0,0
Income before income taxes	-0,4%	6.319,9	0,8%	6.267,6
Income taxes	0,4%	-3.159,9	0,0%	0,0
Income after taxes	-0,4%	3.159,9	0,8%	6.267,6
Free cash flow	342,3%	1.847,9	1.180,9%	6.455,6

Table 6 shows some of the differences between planned consolidated financial statements (left side) and the sum of the operative business. Income taxes, dividends and buyback of shares can only be found in the consolidated financial statements. Therefore the free cashflow is in this case only €1.8 billion. The group income after taxes is €3.1 billion. The equity ratio grows to 53.2 percent. Net debt of the group rises by 196 million to now 3.2 billion (IFRS p. 5/l. 11). More financial ratios and cashflows of differing definition can be found in the ASRAP standard reports output page 13, 14 and 15.

These examples show, that ASRAP is an ideal tool for an effective corporate management. The simulated results are required for a value based management. All necessary values are present in consistent financial statements. The different scenarios are documented with all inputs. The effects of different segment-scenarios on the group development can be tracked in real-time.