## Lecture 13: Case Study - Financial analysis of the company Pivovary Staropramen a. s.

## **Financial Analysis**

Financial analysis is a tool of financial management for evaluation of financial position and financial performance of an analyzed company. It helps to forecasting of company's future progress and performance. The main data for financial analysis we can find in the basic financial statements (Balance sheet, Income statements, Cash flow statement).

There are a lot of approaches used by financial analysis. The main approaches are the following:

- Vertical and Horizontal analysis
- Financial Ratios analysis

On the next pages you can find short examples of financial analysis of a company Pivovary Staropramen a. s. carried out in year 2011.

**Notice:** Don't pay attention to significant changes in financial statements in year 2009. It is a result of merger of Pivovary Staropramen a.s. and another companies. The explanation of this situation is beyond the syllabus of this course.

### **Company Profile**

Pivovary Staropramen a. s. is the second largest beer producer in the Czech Republic and one of the biggest Czech beer exporters. The domestic market share is higher than 15 % and the key brand Staropramen is exported to more than 30 countries all over the world. The company operates breweries in two locations – in Prague (Staropramen) and in Ostrava (Ostravar).

#### Main products of company

The company produces a wide range of own beer brands - Staropramen, Braník, Ostravar, Velvet. Under the license it produced also brands like Hoegaarden, Stella Artois or Leffe.















## **Horizontal Analysis**

Horizontal analysis is a trend analysis. It shows changes of particular items of financial statement over a period of time.

**Example 1:** Horizontal analysis of Balance sheet in years 2005-2009

Table 13.1: Horizontal analysis of Balance sheet in years 2005-2009 (in %)

	2006/2005	2007/2006	2008/2007	2009/2008
TOTAL ASSETS	-12,4	19,8	10,3	205,8
RECEIVABLES FOR SUBSCRIBED REGISTERED CAPITAL	-	-	-	-
FIXED ASSETS	7,8	6,7	4,1	378,1
Intangible fixed assets	-18,2	-29,0	-44,8	-28,0
Tangible fixed assets	9,9	8,6	4,3	394,6
Long-term investments	-16,8	-11,2	67,7	-0,3
CURRENT ASSETS	-40,4	41,9	21,3	47,6
Inventories	7,8	-7,1	-1,5	-19,7
Long-term receivables	-37,5	-56,2	-35,7	16,4
Short-term receivables	21,8	2,7	5,6	-18,0
Short-term financial assets	-70,7	179,7	38,8	84,9
Deferrals	24,7	30,6	4,0	-18,4

	2006/2005	2007/2006	2008/2007	2009/2008
TOTAL LIABILITIES AND EQUITY	-12,4	19,8	10,3	205,8
EQUITY	8,7	19,8	8,5	221,5
Registered capital	-	-	-	-
Capital contributions	150,3	-43,4	1 194,5	98 807,5
Reserve funds and other funds from profit	16,7	13,6	29,6	11,5
Retained earnings	-21,3	-26,0	-88,0	-100,0
Profit / loss for the current period	-3,8	150,1	-49,9	148,8
LIABILITIES	-48,8	21,7	16,8	161,9
Provisions	160,1	360,2	-24,3	77,5
Long-term liabilities	-	-	-	-
Short-term liabilities	-49,7	13,7	20,7	-0,8
Accruals	34,6	-12,3	1,6	-6,6

Source: Own adaptation of financial statements of Pivovary Staropramen a. s.

## **Findings:**

- regularly increase in Tangible fixed assets reconstruction of brewery in Smíchov and enlargement of production capacities
- 2006: deep decrease in Short-term financial assets repaid a loan received within a group (CZK 1 billion)
- 2007: high increase in Short-term financial assets revenues from sale of Braník brewery
- 2006-2008: increase in Short-term receivables regularly increase in Trade receivables
- changes in Profit for the current period results of 2007 and 2009 were very successful, in years 2006 and 2008 was the profit lower, but still at a very good level

#### **Vertical Analysis**

Vertical analysis gives us information about percentage shares of particular items of financial statements.

### **Financial Ratios Analysis**

## 1. Profitability ratios

Profitability ratios show the net benefit from investment of particular resources. Ratios compare earnings or net income with e.g. assets, equity, volume of sales.

## Return on Assets (ROA)

ROA measures the performance of the entity by the comparison of net income (EBIT or EAT) to total assets.

$$ROA = \frac{EBIT}{assets}$$

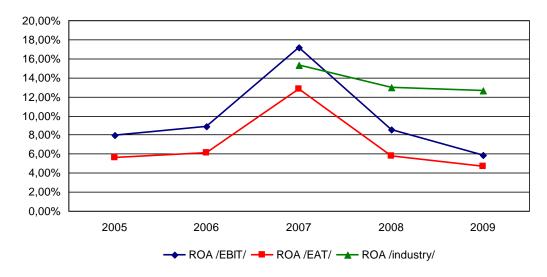
Example 2: Return on Assets in years 2005-2009

Table 13.2: Return on Assets (in %)

	2005	2006	2007	2008	2009
ROA <sub>EBIT</sub>	7,93	8,83	17,20	8,56	5,86
ROA <sub>EBIT</sub> in industry <sup>1</sup>	-	-	15,32	12,99	12,65
$ROA_{EAT}$	5,58	6,12	12,78	5,80	4,72

**Source**: Own adaptation of financial statements of Pivovary Staropramen a.s. and Ministry of Industry and Trade of the Czech Republic

Figure 13.1: Trend of ROA in comparison with industry (in %)



Source: Own structure based on financial statements of Pivovary Staropramen a. s.

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<sup>&</sup>lt;sup>1</sup> A company Pivovary Staropramen a. s. operates in beverage production industry. For this purposes are used average values reached by companies in the same industry.

## **Findings:**

- the level of ROA was, except the year 2007, lower than the industry average
- low ROA = acquired company's assets earn low proceeds

## ■ Return on Equity (ROE)

ROE shows how successful are shareholder's investments used to produce profit.

$$ROE = \frac{EAT}{Shareholder's equity}$$

## 2. Activity ratios

Activity ratios measure an efficiency of usage of company's assets. Activity ratios can be calculated for total assets, receivables, payables and inventories.

### Collection period

The collection period show an average number of days needed to collect trade receivables. This ratio is compared with invoice maturity date. The lower collection period indicates the better financial position of company.

$$Average \ collection \ \ period = \frac{Trade \ receivables}{Daily \ credit \ sales}$$

#### Payment period

The payment period represents an average number of days after that the company pays to its lenders.

$$Average \ payment \ period = \frac{Payables}{Daily \ credit \ purchases}$$

Example 3: Activity ratios in years 2005-2009

Table 13.4: Collection and payment periods

	2005	2006	2007	2008	2009
Collection period	36,33	53,87	51,42	47,02	40,10
Payment period	16,01	23,48	31,23	35,15	41,23

 $\textbf{Source} \colon Own \ adaptation \ of \ financial \ statements \ of \ Pivovary \ Staropramen \ a. \ s.$ 

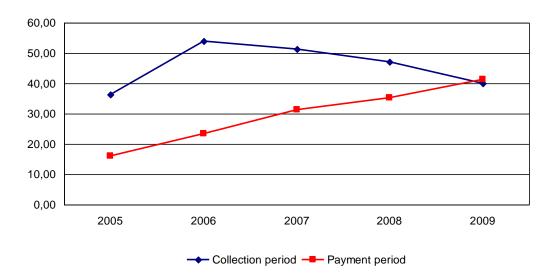


Figure 13.2: Trend of collection and payment periods (in %)

**Source**: Own structure based on financial statements of Pivovary Staropramen a. s.

### **Findings:**

- Collection period was constantly decreasing since 2006, the collection of receivables was more and more successful
- Payment period was constantly increasing during the whole period, the company used "free" credit from creditors for a longer time

#### 3. Debt ratios

Companies use different level of debt for their investments and daily activities. The use of debt is connected with business risk. Debt ratios help to measure a level of this kind of risk for company.

#### Debt ratio

Debt ratio compares the level of debt with total assets of company. The higher the debt ratio the higher lenders risk.

$$Debt\ ratio = \frac{Total.debt}{Total\ assets}$$

## Equity ratio

Equity ratio represents a "financial independent" of company. It is equity to total assets ratio. It is a complement of previous ratio.

$$Equity \ ratio = \frac{Equity}{Total \ assets}$$

### Example 4: Debt ratios in years 2005-2009

Table 13.5: Debt ratios (in %)

	2005	2006	2007	2008	2009
Debt ratio	38,32	23,21	23,54	24,69	20,49
Debt ratio in industry	-	-	30,59	28,17	29,03
Equity ratio	62,11	77,11	77,09	75,85	79,76
Equity ratio in industry	-	-	69,37	70,61	69,11

**Source**: Own adaptation of financial statements of Pivovary Staropramen a.s. and Ministry of Industry and Trade of the Czech Republic

#### **Findings:**

- *Debt ratio* value of debt ratio ranged from 20 to 25 % (except 2005 due to loan received within a group) and was under the industry average. This low level of debt which signified a low level of business risk.
- *Equity ratio* in years 2006-2009 ranged this ratio between 75-80 %. It is a proof of the previous finding that the level of debt is low and the equity of company covers a significant part of acquired assets.

## 4. Liquidity ratios

Liquidity ratios describe a company's ability to meet its short-term obligations using assets which are easily convertible into cash. There are three main categories of liquidity:

Current liquidity – show the ability to cover short-term liabilities using company's current assets

Current liquidity ratio = 
$$\frac{Current \ assets}{Current \ liabilitie \ s}$$

 Quick liquidity - describes the ability to cover short-term liabilities using company's current assets without inventories

$$Quick\ liquidity\ ratio = \frac{Current\ assets - Inventory}{Current\ liabilitie\ s}$$

 Cash liquidity – show the ability to cover short-term liabilities using the company's most liquid assets

$$Quick \ liquidity \ \ ratio = \frac{Cash + Cash \ equivalents}{Current \ liabilitie \ s}$$

# Example 5: Liquidity ratios in years 2005-2009

**Table 13.3: Liquidity ratios** 

	2005	2006	2007	2008	2009
Current liquidity	1,20	1,43	1,78	1,79	2,66
Current liquidity in industry	-	-	1,33	1,36	2,06
Quick liquidity	0,93	1,00	1,52	1,60	2,50
Quick liquidity in industry	-	-	0,91	0,96	1,58
Cash liquidity	0,69	0,40	0,98	1,13	2,10
Cash liquidity in industry	-	-	0,27	0,27	0,67

**Source**: Own adaptation of financial statements of Pivovary Staropramen a. s. and Ministry of Industry and Trade of the Czech Republic

## **Findings:**

- all categories of liquidity ratios increased every year (except the Cash liquidity in 2006)
- all liquidity ratios were over the average of industry
- $\rightarrow$  the company was without liquidity problems and was able to meet their obligation promptly

# **Financial Statements**

**Appendix A:** Balance sheet of the company Pivovary Staropramen a. s. in years 2005-2009 (in thousands of CZK)

	2005	2006	2007	2008	2009
TOTAL ASSETS	4 313 322	3 777 457	4 526 748	4 990 859	15 261 761
RECEIVABLES FOR SUBSCRIBED REGISTERED CAPITAL					
FIXED ASSETS	2 082 109	2 245 175	2 396 102	2 494 257	11 925 080
Intangible fixed assets	104 365	85 408	60 649	33 475	24 114
Software	92 048	76 887	55 122	32 942	17 511
Royalties	1 141	233	133	34	0
Other intangible fixed assets	213	710	0	0	1 712
Intangible fixed assets under construction	10 963	7 331	5 394	499	4 891
Advance payments for Intangible fixed	0	0.47	0	0	0
assets Tangible fixed assets	0 1 <b>922 629</b>	247 <b>2 113 913</b>	0 <b>2 294 722</b>	0 <b>2 392 459</b>	0 <b>11 832 822</b>
Land	161 237	164 055	138 543	138 055	138 415
Building	446 873	421 272	637 826	641 090	591 974
Plant and equipment	1 179 120	1 076 534	1 418 358	1 516 707	1 356 196
Other tangible fixed assets	262	262	216	216	115
Tangible fixed assets under construction	83 620	391 102	80 739	82 459	24 187
Advance payments for tangible fixed assets	24 029	37 719	590	02 433	0
Adjustments to acquire fixed assets	27 488	22 969	18 450	13 932	9 721 935
Long-term investments	55 115	45 854	40 731	68 323	68 144
Investments in group undertakings	5 941	11 656	30 395	61 176	63 802
Loans – group undertakings, associated	0011	11 000	00 000	01110	00 002
companies	23 485	16 615	0	0	0
Other long-term investments	25 689	17 583	10 336	7 147	4 342
CURRENT ASSETS	1 919 285	1 143 161	1 622 434	1 968 158	2 905 513
Inventories	159 967	172 482	160 157	157 806	126 705
Raw materials	89 891	70 596	74 201	78 445	64 911
Work in progress and semi-finished goods	33 920	36 719	36 813	39 265	25 724
Finished goods	33 599	60 916	39 293	38 053	35 610
Goods for resale	2 551	4 212	9 850	2 043	460
Advance payments for long-term inventories	6	39	0	0	0
Long-term receivables	272 861	170 474	74 681	48 016	55 874
Trade receivables	0	0	23 023	29 718	36 485
Long-term advances paid	0	0	0	0	4 470
Deferred tax asset	272 861	170 474	51 658	18 298	14 919
Short-term receivables	394 481	480 442	493 213	520 820	426 871
Trade receivables	362 239	446 552	456 551	497 031	319 042
Receivables – group undertakings	0	0	0	0	84 501
Tax receivables	0	3 530	5 293	225	8 446
Short-term advances paid	16 897	19 791	13 271	15 885	7 838
Estimated receivables	2 437	10 244	15 266	7 302	6 704
Other receivables	12 908	325	2 832	377	340
Short-term financial assets	1 091 976	319 763	894 383	1 241 516	2 296 063
Cash	8 525	3 931	2 072	1 074	712
Bank accounts	1 083 451	315 832	892 311	1 240 442	2 295 351
Deferrals	311 928	389 121	508 212	528 444	431 168
Prepaid expenses	297 695	375 157	488 036	506 106	417 404
Accrued revenues	14 233	13 964	20 176	22 338	13 764

	2005	2006	2007	2008	2009
TOTAL LIABILITIES AND EQUITY	4 313 322	3 777 457	4 526 748	4 990 859	15 261 761
EQUITY	2 678 994	2 912 613	3 489 498	3 785 559	12 172 117
Registered capital	3 434 949	3 434 949	3 434 949	3 434 949	3 434 949
Registered capital	3 434 949	3 434 949	3 434 949	3 434 949	3 434 949
Capital contributions	-2 161	1 087	615	7 961	7 874 027
Revaluation of assets and liabilities	-2 161	1 087	615	7 961	6 884
Revaluation reserve on transformation	0	0	0	0	7 867 143
Reserve funds and other funds from profit	74 422	86 869	98 689	127 881	142 560
Statutory reserve fund / Undistributable fund	74 416	86 440	98 002	126 922	141 404
Statutory and other funds	6	429	687	959	1 156
Retained earnings	-1 068 690	-841 540	-623 154	-74 875	0
Retained earnings	0	0	0	0	0
Accumulated losses	-1 068 690	-841 540	-623 154	-74 875	0
Profit / loss for the current period	240 474	231 248	578 399	289 643	720 581
LIABILITIES	1 601 223	820 272	998 151	1 165 564	3 052 522
Provisions	7 224	18 789	86 472	65 417	116 132
Income tax provision	0	0	0	58 544	108 287
Other provisions	7 224	18 789	86 472	6 873	7 845
Long-term liabilities	0	0	0	0	1 845 379
Deferred tax liability	0	0	0	0	1 845 379
Short- term liabilities	1 593 999	801 483	911 679	1 100 147	1 091 011
Trade payables	146 017	325 389	340 709	450 184	475 734
Liabilities – group undertakings	0	0	0	0	43 609
Liabilities – associated companies	1 000 000	0	0	0	0
Payables to employees	19 081	20 100	20 648	22 763	22 059
Payables to social security and health ins.	11 356	11 854	11 215	11 210	10 449
Tax liabilities and subsidies	102 349	86 451	113 026	99 041	108 296
Short-term advances received	172 565	178 755	193 304	315 720	257 088
Estimated payables	138 889	175 619	232 078	142 836	173 505
Other payables	3 742	3 315	699	58 393	271
Accruals	33 105	44 572	39 099	39 736	37 122
Accrued expenses	0	0	0	0	138
Deferred revenues	33 105	44 572	39 099	39 736	36 984

**Source**: Own adaptation of financial statements of Pivovary Staropramen a. s.

**Appendix B:** Income statement of company Pivovary Staropramen a. s. in years 2005-2009 (in thousands of CZK)

	2005	2006	2007	2008	2009
	2005		2007	2006	2009
Revenue from goods	92 931	92 211	71 297	52 255	46 407
Cost of goods sold	37 303	37 886	32 239	23 938	18 694
Gross profit	55628	54325	39058	28317	27713
Revenue from production	3 374 581	3 556 622	3 752 870	4 005 590	3 981 271
Revenue from own products and services	3 409 521	3 522 240	3 767 707	3 998 124	3 996 139
Change in inventory of own production	-34 940	34 382	-14 837	7 466	-14 868
Cost of sales	2 183 845	2 361 522	2 578 426	2 665 904	2 245 679
Materials and consumables	1 008 731	1 063 142	1 161 453	1 307 691	1 097 413
Services	1 175 114	1 298 380	1 416 973	1 358 213	1 148 266
ADDED VALUE	1 246 364	1 249 425	1 213 502	1 368 003	1 763 305
Personnel expenses	448 880	453 008	471 139	434 729	470 651
Wages and salaries	324 788	327 977	344 364	314 771	345 421
Remunerations of board members	448	384	240	230	220
Social security and health insurance expenses	115 227	116 720	116 894	111 901	115 767
Social expenses	8 417	7 927	9 641	7 827	9 243
Taxes and charges	2 668	5 049	21 627	7 143	4 484
Depreciation of intangible and tangible assets	448 018	402 949	449 050	429 582	425 431
Proceeds from disposals of fixed assets					
and raw materials	74 368	54 791	498 383	65 170	73 245
Proceeds from disposals of fixed assets	48 218	35 619	467 854	24 282	40 173
Proceeds from disposals of raw materials  Net book value of fixed assets and raw	26 150	19 172	30 529	40 888	33 072
materials sold	67 349	45 217	229 049	47 867	50 863
Net book value of fixed assets sold	42 407	32 304	199 025	7 713	20 678
Net book value of raw materials	24 942	12 913	30 024	40 154	30 185
Change in provisions and adjustments relating to operating activity and change in complex					
prepaid expenses	-53 678	31 006	-217 791	-79 130	9 423
Other operating revenues	33 330	36 433	61 444	36 415	36 446
Other operating expenses	85 299	53 955	36 168	197 061	49 532
OPERATIN PROFIT / LOSS	355 526	349 465	784 087	432 336	862 612
Securities and ownership interests sold	0	0	0	735	0
Interest revenue	14 287	10 508	11 929	35 608	23 518
Interest expense	0	0	0	0	137
Other financial revenues	30 892	8 376	21 796	58 904	13 445
Other financial expense	58 808	34 714	39 368	98 870	5 277
PROFIT / LOSS FROM FINANCIAL OPERATIONS	-13 629	-15 830	-5 643	-5 093	31 549
Income tax from ordinary profit / loss	101 423	102 387	200 045	137 600	173 580
current	0	0	81 230	104 240	170 201
differed	101 423	102 387	118 815	33 360	3 379
PROFIT / LOSS ON ORDINARY ACTIVITIES AFTER TAX	240 474	231 248	578 399	289 643	720 581
EXTRAORDINARY PROFIT / LOSS	0	0	0	0	0
Profit / loss fort the accounting period	240 474	231 248	578 399	289 643	720 581

Source: Own adaptation of financial statements of Pivovary Staropramen a. s.

**Appendix C:** Cash flow statement of company Pivovary Staropramen a. s. in years 2005-2009

(in thousands of CZK)

	2005	2006	2007	2008	2009
Operating profit / loss before tax	341 897	333 635	778 444	427 243	894 161
Non-cash transactions	373 323	466 682	-21 317	330 661	8 383 877
Depreciation of fixed assets	454 845	413 252	454 996	483 710	427 013
Change in goodwill and adjustments to acquired					
assets	4 518	4 519	0	4 518	7 871 662
Change in provisions and adjustments relating	00.074	04.000	047 700	400,000	404.000
to operating activity	-63 671	31 006	-217 790	-169 329	104 636
Profit(-) Loss(+) on sale of fixed assets Profit(-) Loss(+) on sale of securities	-5 812 0	-3 315 0	-268 829 0	-16 569 735	-19 495 0
Interest revenue and expenses	-14 287	-10 508	-11 929	-35 608	-23 381
Other non-cash transactions	-2 270	31 728	22 235	63 204	23 442
Net operating cash flow before tax, changes	-2 210	31720	22 233	03 204	23 442
in working capital and extraordinary					
items	715 220	800 317	757 127	757 904	9 278 038
Changes in working capital	75 515	-982 966	-32 613	127 450	14 602
Change in receivables from operating activities					
and deferrals	58 050	-173 775	-147 019	-63 166	151 386
Change in short-term liabilities from operating activities and accruals	-3 799	-781 049	103 617	148 707	-169 780
Change in inventories	2 264	-28 142	3 883	-11 132	28 723
Change in short term financial assets, other	2 20 1	20 1 12	0 000	11 102	20 / 20
than cash and cash equivalents	19 000	0	6 906	53 041	4 273
Net operating cash flow before financial balances, tax and extraordinary items	790 735	-182 649	724 514	885 354	9 292 640
Interest paid	0	0	0	0	-137
Interest received	14 287	9 309	10 406	35 608	23 518
Income tax paid on ordinary income and income					
tax relating to prior periods	0	0	0	-42 261	-61 914
Net operating cash flow	805 022	-173 340	734 920	878 701	9 254 107
Investment activity					
Acquisition of fixed assets	-470 121	-626 157	-633 389	-522 490	-9 882 647
Proceeds from sales of fixed assets	48 218	35 619	467 854	24 282	40 173
Advances and loans to related parties	-11 073	-7 458	6 277	0	0
Net cash flow from investment activity	-432 976	-597 996	-159 258	-498 208	-9 842 474
Financial activity					
Change in long-term liabilities and bank loans	0	0	0	-33 360	1 842 000
Increase and decrease in equity from cash	705	077	1 042	0	400.096
transactions	-725	-877	-1 042	0	-199 086
Equity paid to shareholders  Net cash flow from financial activity	- <b>725</b>	0 <b>-877</b>	0 <b>-1 042</b>	- <b>33 360</b>	-199 086 <b>1 642 914</b>
-	-	-772 213	574 620	347 133	-
Net increase or decrease in cash balance Cash and cash equivalents, beginning of the	371 321	-112213	3/4 620	347 133	1 054 547
year	720 655	1 091 976	319 763	894 383	1 241 516
Cash and cash equivalents, end of period	1 091 976	319 763	894 383	1 241 516	2 296 063
out and out of characters, end of bellon	1 001 010	019703	004 000	1 271 310	£ £30 003

Source: Own adaptation of financial statements of Pivovary Staropramen a. s.

# The source of information:

LEV, L. *Financial analysis of a concrete company*. Diploma thesis. Pilsen: The Faculty of Economics, UWB in Pilsen, 2011

Financial Statements of company Pivovary Staropramen a. s. in years 2005-2009.