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Cash-Flow-to-Sales Ratio Unchanged in 2015

Profitability of Austrian Manufacturing

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In 2015, the cash-flow-to-sales ratio of the Austrian manufacturing sector reached an estimated 8.5 percent, a value which is slightly below the previous year's ratio of 8.6 percent. This marginal decrease of the profitability of manufacturing reflects the moderate growth performance of the manufacturing sector, which attained by a mere +1.3 percent in both 2014 and 2015. According to further estimates of a dynamic, panel-econometric model at the industry level, the cash-flow-to-sales ratio in manufacturing continued its sideward movement in 2016.

In the course of the 2008-09 recession, the real value added of manufacturing dropped by nearly 15 percent in the year 2009. In the years 2010 and 2011, this decline was rapidly overcome. Since then, the cyclical pattern has been characterised by moderate growth. With a short interruption in 2013, net production value rose consistently but only moderately. In 2015, the increase was 1.3 percent, with an increase in goods exports of 3.2 percent playing a significant role. As a result, manufacturing grew somewhat more quickly than the economy as a whole (+0.9 percent, 2014 +0.4 percent, 2013 +0.3 percent). Private household demand only increased modestly in 2015, but due to its considerable share (53.3 percent of GDP) was a major contributor to growth. Investments recovered slowly and because of the high import content of investments in equipment, import growth also increased (*Bilek-Steindl et al.,* 2016).

In 2015, the moderate growth of manufacturing was generally based on greatly differing developments in the individual industry sectors. Production value increased most significantly in comparatively small sectors, such as the manufacture of other goods (+21.0 percent), while the large sector "other transport equipment" recorded a considerable decline (−14.3 percent). The larger the industries were, the more their value added development corresponded to the slow dynamics of the economy as a whole (*Bilek-Steindl et al.,* 2016).

This is also reflected in the indicators of the WIFO Business Cycle Survey. In 2015, the capacity utilization of material goods production developed slowly. As in 2014, it lay slightly above the long-term average (81.0 percent) at 81.8 percent and weakened around the middle of the year in all sectors, without picking up again until the end of

2015 – particularly in the preliminary product and consumer goods industries. In the investment goods sector it developed somewhat more weakly towards the end of the year, but the annual average was significantly higher than in the other industries (*Bilek-Steindl et al.,* 2016). For the assessment of the development of earnings in Austrian manufacturing in 2015, those indicators used in the WIFO Business Cycle Survey were applied (Figure 1). The confidence indicator for Austria developed similarly to that of Germany or the EU as a whole (Figure 2).

Figure 1: Assessment of the economic situation of companies in manufacturing

Balance of positive and negative assessments as a percentage of total responses
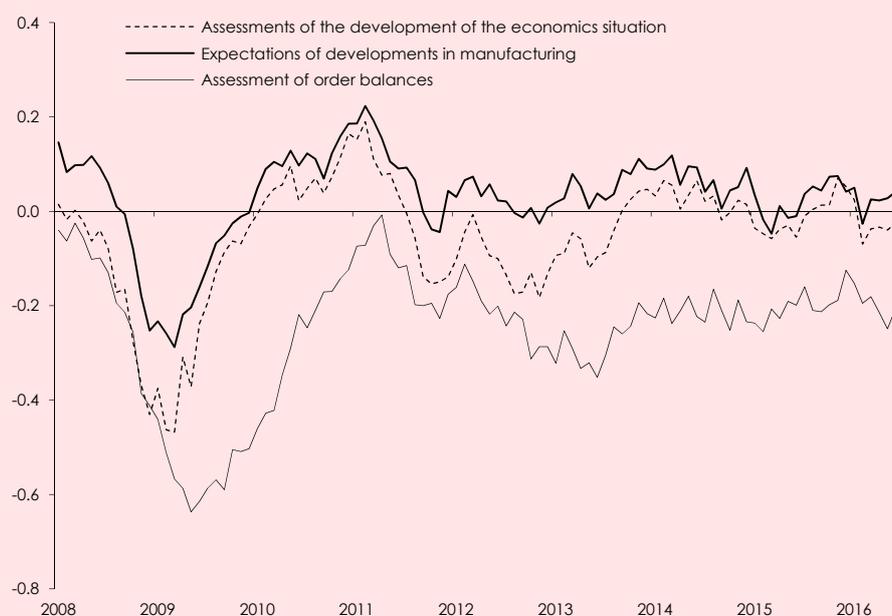
Source: WIFO Business Cycle Survey.

Figure 2: Industrial confidence indicator for the EU, Germany and Austria

Balance of positive and negative assessments as a percentage of total responses
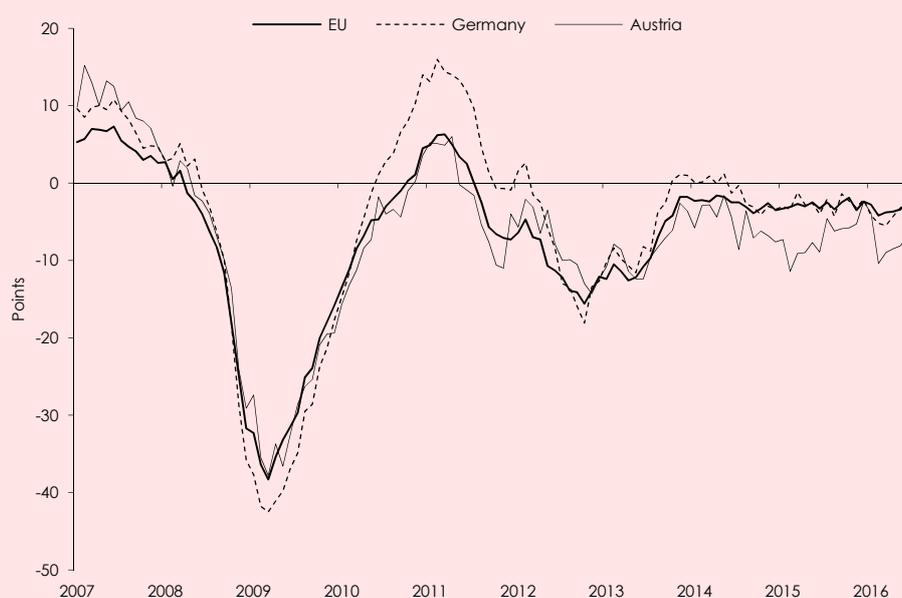
Source: Joint Harmonised EU Programme of Business and Consumer Surveys.

Data and definitions

The cash-flow ratio is an indicator of a company's capacity to *finance investment, pay off debt and taxes or distribute profits* out of its sales revenue. It mirrors the *self-financing capacity* of a company. Equity capitalisation is of importance beyond the pure liability element, above all with a view to its effect on confidence with clients and suppliers regarding a company's future liquidity, as well as its autonomy in carrying out high-risk financial operations.

The *cash flow* of a company corresponds to the surplus of revenues over expenditure generated within a period through its own business operations. In contrast to *external financing* (via equity capital, debt capital or subsidies) or financing via asset transformation (asset sales, depletion of inventories, etc.), it is another form of internal financing. *Self-financing* in the broader sense consists of three components: retained earnings (self-financing in the narrow sense), the "earned" counter value of *depreciation and of financial reserves* for potential liabilities vis-à-vis third parties (*Schäfer,* 2005, *Gabler Wirtschaftslexikon,* 2013).

The cash-flow-to-sales ratio (cash-flow ratio) is measured by the share of cash flow in sales revenues. For this purpose, cash flow is defined as follows:

Result from ordinary business operations

+   normal depreciation of fixed assets

+   depreciation of financial assets and securities of current assets

[±   allocation to or liquidation of reserves]

[±   allocation to or liquidation of social capital]

=   cash flow

The balance sheet database of the Austrian Institute for SME Research

The data basis is the balance sheet database of the Austrian Institute for SME Research, which consists of a pool of over 100,000 annual financial statements of Austrian firms. The industry classification mainly follows ÖNACE 2008. This statistical classification offers the advantages of a high level of detail and the possibility of international comparison. Through the analysis of balance (asset and capital structure) and return-and-loss-sheets (performance, costs and results structure), it is possible to compute a number of performance indicators (*Voithofer – Hölzl – Eidenberger,* 2011).

Adjusted cash flow

The definition of earning power used in the following is the "adjusted cash flow", which is placed in relation to operational effectiveness. The cash flow is calculated as the sum of the results of ordinary operations and depreciations. The figure is "adjusted" by taking into account a "calculatory entrepreneurial salary", which makes it possible to compare figures across legal forms. In contrast to incorporated companies, business partnerships and individual enterprises do not enter a deductible salary for the participation of the entrepreneur as an expenditure. For business partnerships and individual enterprises, the minimum salary of managers exercising comparable functions is used as proxy for a calculatory entrepreneurial salary.

For the calculation of the median, the arithmetic mean and the standard deviation, the weighted and unweighted cash-flow ratios are used.

The costs relevant to manufacturers developed favourably in 2015 (Table 1). The price of industrial fuels, for example, once again dropped sharply (–5.1 percent in 2015), thus declining for the fourth year in a row. Unit labour costs rose by only 1 percent in 2015 (+1.2 percent in 2014), and the interest rate on corporate loans remained low (2015: 2.2 percent, 2014: 2.4 percent). The real-effective exchange rate index declined by 2.6 percent compared to the previous year (+1.5 percent in 2014).

There are no early indicators for the development of the earning power of manufacturing; balance sheet data are only available with a lag. The cash-flow ratio for 2015 is therefore "projected" and compared with indicators that are based on preliminary data. The estimation is based on the balance sheet database of the Austrian Institute for SME Research, which is highly suited for the evaluation of the balance sheet

data of Austrian companies. Based on the preliminary data for 2015, an estimate for 2016 is also devised.

Table 1: Development of cost in manufacturing

	Industrial commodity prices, euro basis		Unit labour costs		Interest rate for company loans	Real-effective exchange rate index	
	2010 = 100	Percentage changes from previous year	2010 = 100	Percentage changes from previous year	In percent	First quarter 1999 = 100	Percentage changes from previous year
2004	62.0	+ 7.4	98.7	– 3.0	4.0	98.7	+ 0.9
2005	69.5	+ 7.6	97.6	– 1.1	3.8	97.5	– 1.2
2006	92.9	+ 23.4	94.1	– 3.5	4.1	96.8	– 0.7
2007	96.8	+ 3.9	92.5	– 1.6	4.9	97.3	+ 0.5
2008	88.4	– 8.4	96.9	+ 4.4	5.4	97.5	+ 0.2
2009	68.2	– 20.2	107.5	+ 10.6	3.3	97.9	+ 0.5
2010	99.9	+ 31.7	100.0	– 7.5	2.7	95.1	– 2.9
2011	108.7	+ 8.8	98.8	– 1.2	3.1	95.8	+ 0.7
2012	99.1	– 9.7	101.5	+ 2.7	2.7	94.3	– 1.5
2013	93.3	– 5.7	104.0	+ 2.5	2.4	96.2	+ 1.9
2014	88.7	– 4.6	105.2	+ 1.2	2.4	97.7	+ 1.5
2015	83.6	– 5.1	106.2	+ 1.0	2.2	95.1	– 2.6

Source: WDS – WIFO Data System, Macrobond, OeNB.

1. Projection of the cash-flow-to-sales ratio at the industry level

Since 2014, WIFO's annual reporting on the profitability of manufacturing has used indicators from the balance sheet database of the Austrian Institute for SME Research. A comparison of the results with the WIFO monthly reports before 2014 is therefore not possible (*Hölzl – Friesenbichler – Hölzl,* 2014).

Due to the conversion from NACE Rev. 1.1 to NACE Rev. 2, the prognosis is also based on relatively short time series, as the indicators used are not available until 2000. In the data set, the figures for the industries tobacco processing (NACE 12), coke and refined petroleum processing (NACE 19) and other transport equipment (NACE 30) are not available, so that only 21 out of the 24 sectors could be taken into consideration in the econometric estimates. The econometric estimate for the year 2015 is based on data from the 2000 to 2014 period.

In terms of the average profit rate between 2008 and 2014, beverage production (NACE 11), the manufacture of chemical products (NACE 20) and pharmaceutical products (NACE 21) were particularly profitable. The cash-flow-to-sales ratio in the manufacture of furniture (NACE 31), textiles (NACE 13) and wood, braiding, basket and cork goods without furniture (NACE 16) was relatively low.

Estimates for the year 2015 show a slight decline in the average cash-flow-to-sales ratio of Austrian manufacturing to 8.5 percent (2014: 8.6 percent).

Table 2: Estimated coefficients for the projection of the cash-flow-to-sales ratio

	$\log \pi_{it-1}$	I_{it}	I_{it}^2	$\log SD(\pi_{it-1})$
Coefficient	0.30***	– 0.05	0.01	0.33***
z-value	9.17	– 0.37	0.61	5.95

Source: WIFO calculations. Number of observations: 273. π . . . cash flow ratio, I . . . economic indicator, *SD* . . . standard deviation within the industry, i . . . industry, t . . . period, *** . . . significant at a 1 percent level.

The cash-flow ratio increased significantly compared to the 2008-2014 average in the manufacture of paper, cardboard and related products (NACE 17) and the manufacture of textiles (NACE 13), while declining in the manufacture of leather, leather goods and footwear (NACE 15), chemical products (NACE 20), the manufacture of machinery (NACE 28) and the manufacture of beverages (NACE 11).

The different earning power of the individual sectors is taken into account in the estimation of the synthetic business cycle indicator using information from companies.

The heterogeneous effects of changes in the framework conditions may be limited. Therefore, the estimation results for the individual sectors should be interpreted with greater caution than the turnover-weighted, aggregated estimate (Table 3).

A panel-econometric model for cash flow projection

A panel-econometric approach is used for the projection of the cash-flow ratio at the industry level. Despite rather short time series, the pooling of sectoral data allows a reliable econometric estimate to be made for the cash-flow ratio. The specification follows the industrial economics literature and assumes that the cash profitability, and thereby also the self-financing power of companies, exhibit differences which are persistent over time (*Mueller – Cubbin,* 2005, *Aiginger – Pfaffermayr,* 1997). As industries in manufacturing are also characterised by entry barriers and sunk investments, the equalisation of earning power across industries will be slow. Unfortunately, industry-specific structural data that explain the cash-flow ratio are not available. The characteristics of industry structure are taken into account by considering fixed industry effects. The econometric model also includes the cash-flow ratio lagged by one period in order to account for the partial adjustment to external shocks.

The central explanatory variable is a synthetic business cycle indicator at the industry level $\left(I_{it}, I_{it-1}\right)$ based on companies' subjective assessment of business conditions, as provided by the WIFO Business Cycle Survey. The synthetic cyclical indicator is derived from the annual averages of the balance between optimistic and pessimistic responses (as a percentage of all responses) with regard to current order books (AB), the business outlook for the next six months (GL) and the development of prices (PR) using the following formula (*Oppenländer,* 1995):

$$I = \left[\left(AB + 2\right)\left(GL + 2\right)\left(PR + 2\right)\right]^{\frac{1}{3}} - 2 \,,$$

with the individual indicators included as percentage values in the estimate.

The balance sheet series show a strong correlation with the development of the cash-flow-to-sales ratio, as well as with the rate of change of manufacturing. However, they also mirror unobserved structural differences and different developments in production costs between industries. For projection purposes, this indicator should exhibit a sufficient lead time. The correction of values by 2 ensures that the value of the term in square brackets is always positive.

In algebraic terms, the econometric forecasting model is specified as follows:

$$\log \pi_{it} = \beta_1 \log \pi_{it-1} + \beta_2 \, I_{it} + \beta_3 \, I_{it}^2 + \beta_4 \, SD(\pi_{it-1}) + \beta_0 + \sum_{j=1}^{21} \gamma_j \, S_j + \varepsilon_{it} \,,$$

$$\varepsilon_{it} \sim N\left(0, \sigma^2\right).$$

In addition to the lagged cash-flow-to-sales ratio π_{it-1}, the synthetic business cycle indicator I_{it} and its squared term I^2_{it}, the lagged standard deviation of the cash-flow-to-sales ratio lagged ($SD(\pi_{it-1})$) and fixed industry effects S_i are included in the forecasting model.

The estimate of the dynamic panel model uses an approach that corrects for possible distortions resulting from small sample size (*Kiviet,* 1995, *Bun – Kiviet,* 2003, *Bruno,* 2005). The projection of the average cash-flow ratio for the entire manufacturing sector is obtained as the weighted average of the industry-specific projections, with the turnover shares of the individual industries used as weights. The turnover weights are assumed to be deterministic and continued for the years 2015 and 2016 using the value of the year 2014.

The estimation results for the period from 2000 to 2014 are presented in Table 2. All explanatory variables, with the exception of the squared WIFO Business Cycle Indicator, but including fixed industry effects, are significant. The significant parameter of the one-period-lagged cash-flow ratio implies that exogenous effects on the development of returns have a lagged effect over several periods, even though the persistence of the cash-flow ratio is relatively small. In general, the estimated model displays sufficient quality (Figure 3), but should, however, not be overvalued, as it is largely determined by fixed sector effects.

According to the panel-econometric estimates, the aggregated cash-flow ratio was 0.1 percentage points lower than in 2015 (8.5 percent; see the box "A panel-

econometric model for cash flow projection"). This figure was slightly below the average of the years 2008 to 2014, which amounted to 8.8 percent (Table 3).

The turnover-weighted aggregated results of the econometric estimates for the year 2016 indicate a lateral shift in the cash-flow-to-sales ratio. The ratio was estimated using two models, which update the standard deviation at the industry level as well as the turnover weighting in order to be able to use all explanatory variables used in the previous estimate.

Figure 3: Projection and actual development of the cash-flow ratio in manufacturing
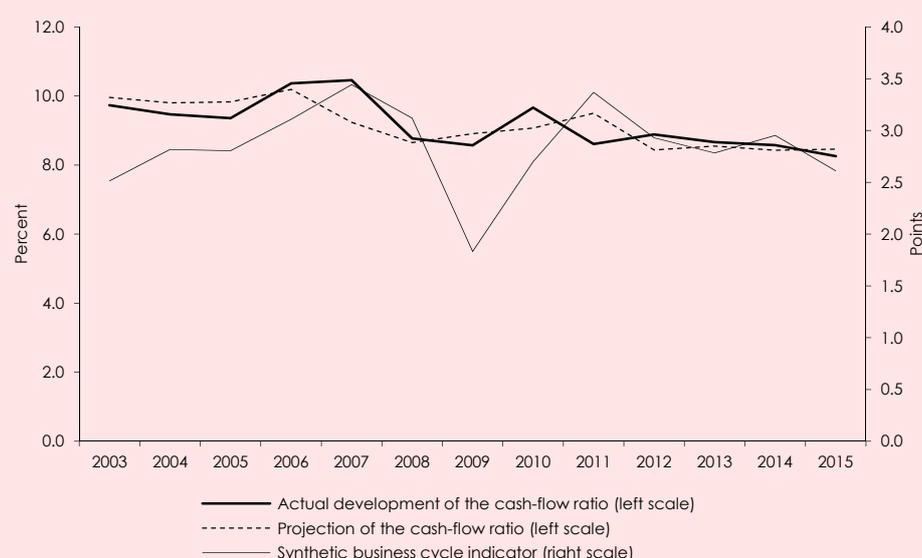
Source: WIFO Business Cycle Survey, Austrian Institute for SME Research, WIFO calculations. 2015: preliminary values of the actual cash-flow ratio.

Table 3: The cash-flow ratio in Austria by industry

	2010	2011	2012	2013	2014	2015[1]	2015[2]	Ø 2008-2014
				Cash flow as a percentage of sales				
Manufacture of food and feed products	7.2	5.2	5.8	5.4	5.9	4.4	5.6	6.1
Manufacture of beverages	13.4	11.7	10.4	8.7	9.5	7.5	10.1	11.0
Manufacture of textiles	6.5	5.4	4.7	4.3	5.2	6.9	5.8	4.3
Manufacture of apparel	8.3	5.7	5.5	4.6	6.1	5.4	5.8	5.9
Manufacture of leather and related products	13.6	10.8	9.1	10.2	10.3		8.0	10.5
Manufacture of wood, weaving, basket and cork products (without furniture)	7.9	6.0	6.1	6.1	6.2	6.3	6.0	5.7
Manufacture of paper, cardboard and related products	9.5	10.4	9.5	8.1	10.8	4.3	13.0	10.2
Printing and reproduction of recorded media	9.9	8.4	7.5	7.4	7.6	11.0	7.8	8.2
Manufacture of chemical products	12.2	11.4	10.4	10.7	11.6	5.1	10.5	11.2
Manufacture of pharmaceuticals	8.3	12.3	12.1	12.7	17.5	8.3	12.0	11.5
Manufacture of rubber and plastics	8.5	9.1	7.8	7.9	7.8	9.3	7.6	8.2
Manufacture of glass and glassware, ceramics, processing of rocks and soils	9.9	10.2	10.5	9.0	8.9	7.0	9.3	9.8
Manufacture and processing of basic metals	9.5	8.8	8.5	8.2	7.4	6.5	8.1	9.0
Manufacture of fabricated metal products	10.2	9.4	9.0	9.6	8.7	9.5	8.5	9.5
Manufacture of computer, electronic and optical products	9.9	11.3	10.3	8.1	9.1	11.4	9.6	9.5
Manufacture of electrical equipment	10.0	7.7	8.7	9.1	10.3	10.2	8.8	9.2
Manufacture of machinery	10.5	9.8	8.9	9.6	9.4	7.6	8.6	9.7
Manufacture of motor vehicles, trailers and semi-trailers	7.4	9.6	8.9	8.9	7.8	5.3	8.6	7.8
Manufacture of furniture	5.3	5.1	5.4	5.6	4.7	6.4	5.5	5.3
Other manufacturing	10.0	8.7	8.8	9.1	9.1	11.2	8.9	8.4
Repair and installation of machinery and equipment	8.3	6.3	6.7	6.6	6.7	6.9	6.6	7.2
Manufacture of goods total, volume weighted	9.7	8.6	8.9	8.7	8.6	8.3	8.5	8.8
Industries considered in the projection	9.3	8.7	8.3	8.1	8.6		8.3	8.5

Source: Data from the Austrian Institute for SME Research, WIFO calculations. – [1] 2015: estimated values. – [2] Forecast.

The first estimation model uses the preliminary available values for 2015 to establish a projection for 2015. As there are no values for the production of leather, leather goods and footwear (NACE 15), only 20 industries were considered. The estimate for 2016 shows a turnover-weighted, aggregated profit rate of 8.1 percent. The second model uses the estimated values for 2015 and produces a turnover-weighted, aggregated profit rate of 9.0 percent. The mean value of these two estimates of 8.6 percent thus forecasts a largely unchanged cash-flow ratio for 2016, which corresponds with the reserved cyclical outlook.

This estimate must, however, be interpreted with caution because it is based on preliminary estimates or estimates of industries for 2015 and is subject to the usual uncertainty of projection. In addition, the underlying business cycle indicator and its squared value are only available for the first half of 2016. As above, the companies' assessment of the earning power of the individual sectors is included in the estimate of the synthetic business cycle indicator. Thus, the heterogeneous effects of changes in the parameter conditions can only be shown to a limited extent.

2. The profit rate of selected service industries

The estimated cash-flow ratio for selected service sectors (Table 4)[1] deviates from that of the manufacturing industries. For many service companies, due to their business model self-financing plays a different role than in the production of material goods. Thus, sales and capital turnover are high in trade, and cash surpluses are determined less by capital allocation than by the willingness to pay and intensity of competition or market concentration (*Friesenbichler,* 2009).

The cash-flow ratio varies more greatly in the service industries than in manufacturing. These deviations can be due to differences in economies of scale and intensity of competition.

Profit rates also differ significantly between industries (Table 4). The cash-flow ratio is particularly high in trade of electricity (NACE 35), legal and accounting services (NACE 69) and the renting and leasing of cars and light motor vehicles (NACE 77). The lowest profit rate is found in the sale maintenance and repair of motor vehicles (NACE 50) and construction of residential and non-residential buildings (NACE 41).

A comparison of the weighted and unweighted samples points towards different structures within industries based on size class. If the turnover-weighted cash-flow-to-sales ratio is lower than the unweighted ratio, smaller firms tend to be more profitable than large companies. This is usually determined by the competition situation. Thus, niche strategies can enable a higher profit rate, i.e. companies adjust their offer to the specific problems of the potential demand of a market niche. As a result, the market niche is intensively exploited and competitive pressure is reduced (*Gabler Wirtschaftslexikon,* 2013).

Higher profit rates for smaller companies can be particularly observed in business management and consultancy activities (NACE 70) and trade of electricity (NACE 35). Advantages of size appear to exist in telecommunications (NACE 61) and other professional, scientific and technical activities (NACE 74; Table 4).

The fluctuation range in the profit rate within industries over time is also very diverse. The variation coefficient (percentage of the standard deviation in the mean value) is highest in other professional, scientific and technical activities (NACE 74) and telecommunications (NACE 61), and lowest in electrical, plumbing and other construction installation activities (NACE 43; Table 4).

As the comparison of the cash-flow ratio of the period before the financial crisis (2000-2007) with the years thereafter (2008-2015) shows, the profit rate only dropped again in energy supply, which can be explained by the high share of sunk costs (*Hölzl – Friesenbichler – Hölzl,* 2014). In some industries the profit rate increased, and in many cases despite declining value added. The sectors of publishing services (NACE 58), legal and accounting activities (NACE 69) and business and management consultancy activities (NACE 70) recorded a significant increase.

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[1] The selection of industries and periods is based on the availability and plausibility of the data.

Table 4: The cash-flow ratio in selected service sectors

	Turnover-weighted sample					Unweighted sample				
	2014	Mean value 2000-2015	Variation coefficient in %	Mean value 2000-2007	Mean value 2008-2015	2014	Mean value 2000-2015	Variation coefficient in %	Mean value 2000-2007	Mean value 2008-2015
				Cash flow as a percentage of sales						
Electricity, gas, steam and air conditioning supply	14.5	17.6	19	20.7	14.5	27.4	19.9	24	20.9	18.9
Waste collection, treatment and disposal activities	9.5	10.6	12	10.2	10.9	12.4	12.5	6	12.4	12.6
Building construction	4.8	4.7	12	4.6	4.8	5.7	5.7	11	5.6	5.8
Underground construction	4.4	4.4	12	4.1	4.8	8.8	7.7	16	7.1	8.2
Construction site preparation, construction installation and other construction activities	6.0	6.2	7	6.2	6.3	7.0	7.1	8	6.9	7.3
Sale, maintenance and repair of motor vehicles	2.6	2.7	11	2.7	2.7	4.4	4.3	14	4.0	4.7
Wholesale trade, except of motor vehicles and motorcycles	3.7	4.2	9	4.5	4.0	6.7	6.1	11	5.7	6.5
Retail trade (except of motor vehicles)	3.9	4.8	10	4.9	4.7	5.6	5.6	11	5.2	6.0
Accommodation	14.3	14.0	13	13.5	14.4	14.8	14.4	8	14.0	14.8
Food and beverage service activities	9.9	8.5	12	7.7	9.3	8.9	8.6	12	8.5	8.7
Publishing activities	11.3	9.4	28	7.7	11.1	11.1	9.7	18	8.4	11.0
Motion picture, video and television programme production, sound recording and music publishing activities	11.5	11.0	24	10.0	11.9	13.2	14.0	10	13.6	14.3
Telecommunications	31.3	19.5	41	17.6	21.5	19.5	16.7	12	17.0	16.4
Computer programming, consultancy and related activities	9.8	8.6	16	7.9	9.3	14.9	13.4	15	11.8	15.0
Information service activities	11.0	11.4	17	12.1	10.8	16.0	14.6	14	13.5	15.6
Legal and accounting activities, auditing	22.7	18.3	21	15.6	20.9	23.6	21.3	13	19.1	23.5
Activities of head offices; management consultancy activities	12.4	12.1	23	10.7	13.5	23.0	20.7	16	18.3	23.1
Architectural and engineering activities; technical testing and analysis	11.8	11.8	16	10.9	12.7	16.0	15.6	14	14.5	16.8
Scientific research and development	6.9	9.6	29	8.9	10.3	10.2	10.6	24	10.7	10.5
Advertising and market research	7.7	9.0	20	9.7	8.4	12.0	11.2	13	10.3	12.0
Other professional, scientific and technical activities	20.4	12.9	30	11.8	14.0	14.2	14.8	14	13.6	15.9
Rental and leasing activities	26.1	28.4	15	30.7	26.1	26.3	25.4	6	25.4	25.3
Employment activities	1.4	2.8	27	2.9	2.8	6.0	5.7	18	5.3	6.0

Source: Austrian Institute for SME Research, WIFO calculations. 2015: estimated values.

3. Appendix: The equity ratio in international comparison

One determinant of profitability is the equipping of companies with equity. To a greater extent than the cash-flow ratio, the equity ratio is a structural indicator. It is determined by company and sector-specific capital intensity and business risk. In international comparison, the non-neutrality of types of financing also plays a role. If corporate financing through bank loans is cheaper for companies than the accruement of equity due to the possibility of tax deductible interest payments, this will have an impact on the financial structure of companies.

The analysis of the equity ratio is based on the BACH database (Bank for Accounts of Companies Harmonized). This has been prepared since 1987 by the European Commission (DG ECFIN) in cooperation with the European Committee of Central Balance Sheet Offices to facilitate comparisons between EU countries. Currently, aggregated annual data are available for 9 countries: Austria, Belgium, Spain, France, Germany, Italy, the Netherlands, Portugal and Poland. In addition, there is a breakdown by 87 sectors according to NACE Rev. 2 (two-digit), of which 24 are in manufacturing and 3 size classes (companies with an annual turnover of less than 10 million €, 10 to 50 million € and more than 50 million €).

The average equity ratio of large Austrian manufacturers was 41.2 percent in 2014, which was slightly below the average of the comparable countries of 42.6 percent. The ratio decreased with operating size: for small and medium-sized manufacturers it remained at 36.0 percent, well below the international average of 46.6 percent. The median shows a similar picture, but the distance to the average of the countries of comparison is, however, larger for large companies (Table 5).

These international comparisons provide rough indications and should be interpreted with caution: distortions are possible due to differences in accounting standards, balance sheets, sample sizes and data sources, as well as interruptions in the time series[2].

Table 5: International comparison of the equity capital ratio in manufacturing

	Large enterprises		Small and medium-sized enterprises					
			Total		Medium-sized enterprises		Small enterprises	
	Ø 2000-2014	2014	Ø 2000-2014	2014	Ø 2000-2014	2014	Ø 2000-2014	2014
	As a percentage of absolute balance sheet							
Average values								
Austria	38.7	41.2	34.5	36.0	36.7	36.9	29.2	34.2
Belgium	43.4	49.3	45.0	53.7	44.3	54.9	45.7	52.8
Czech Republic	51.0	.	49.5	.	50.3	.	48.1	.
Germany	30.6	32.9	33.8	41.4	34.9	41.7	29.6	40.0
Spain	39.4	39.0	43.0	48.5	45.7	49.4	41.1	48.0
France	34.3	34.1	38.9	43.2	38.3	43.0	39.7	43.4
Italy	32.5	38.0	28.3	33.2	31.4	37.5	25.1	29.0
Netherlands	46.3	51.4	52.5	71.7	47.4	56.3	54.1	75.8
Poland	50.2	51.0	49.8	54.2	50.5	55.3	48.7	52.3
Portugal	44.2	47.0	36.6	37.1	40.9	42.1	33.3	33.7
Slovakia[1]	51.6	.	37.0	.	42.8	.	31.6	.
Average[2]	42.0	42.6	40.8	46.6	42.1	46.3	38.7	45.5
Median values								
Austria	36.6	37.7	26.1	30.9	31.6	34.7	24.4	30.1
Belgium	35.4	43.8	35.8	39.0	38.4	45.5	35.6	38.3
Germany	31.2	35.8	26.1	38.2	29.5	39.4	23.5	36.8
Spain	42.9	43.7	29.1	35.8	43.0	47.4	28.6	35.2
France	35.1	39.7	36.5	43.3	35.2	41.0	36.7	43.8
Italy	28.5	34.9	17.5	21.2	25.3	32.3	16.5	20.0
Netherlands	39.8	47.2	34.5	36.6	39.7	42.5	34.0	36.3
Poland	50.4	52.2	51.5	54.7	48.7	52.6	52.1	55.2
Portugal	42.0	46.2	27.7	27.7	37.9	39.9	27.2	27.2
Slovakia[1]	37.1	.	25.0	.	40.7	.	24.2	.
Average[2]	37.9	42.4	31.0	36.4	37.0	41.7	30.3	35.9

Source: BACH database (Banque de France), WIFO calculations. – [1] Values until 2013. – [2] Excluding Slovakia.

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[2] See BACH User Guide, https://www.banque-france.fr/fileadmin/user_upload/banque_de_france/Economie_et_Statistiques/BACH-Summary-Userguide.pdf, accessed on 25 August, 2016.

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