

Hold EUR 50.50 (EUR 49.00) Price EUR 51.00 Downside -1.0 %	Value Indicators: EUR DCF: 50.40	Share data: Bloomberg: WSO1 GR Reuters: WSO1k.DE ISIN: DE000A2GS609	Description: Operator of financial portals, including the largest German financial user forum
	Market Snapshot: EUR m Market cap: 78.54 No. of shares (m): 1.54 EV: 73.93 Freefloat MC: 21.21 Ø Trad. Vol. (30d): 148.40 th	Shareholders: Freefloat 27.0 % AKD (André Kolbinger) 39.0 % André Kolbinger 34.0 %	Risk Profile (WRe): 2017e Beta: 1.4 Price / Book: 24.8 x Equity Ratio: 87 %

Strong start to the year and guidance increase

Wallstreet:online AG (w:o) has said development in Q2 is likely to be similar to the strong start to the year seen in Q1. The company gave an outlook for Q2 figures last Friday (20.04.2018), which are presumably set to reflect high growth rates and a continuation of the better than communicated developments in Q1/18, as already reported at the end of February. The company expects Q2 revenues of EUR 2.4m (+138% yoy) and EBT of EUR 1.6m (+383% yoy, 2017 without Markets Inside Media). Adding those figures to the preliminary Q1 results (revenue at EUR 2m and EBT at EUR 1m), w:o should reach revenues of EUR 4.4m and EBT of EUR 2.6m in H1/18.

Against this backdrop, w:o increased its 2018 revenue guidance range to EUR 8.4m to 10.3m (previously EUR 6.4m to 7.8m) and the EBT range to EUR 4.5m to 5.5m (previously EUR 2.4m to 2.9m). We estimate revenues of EUR 9.4m and EBT of 3.9m. Our EBT assumption is below the low point of the guidance. However, w:o's guidance does not include start-up losses from its ICO and Fintech businesses, which we assume to amount to EUR 1m. The new guidance is a result of the booming investor relations (IR) and digital advertising business. Nevertheless, the new business segments should not have contributed substantial revenues so far, leaving the P&L with the start-up costs. While our estimates already assumed that the traditional business would bring in higher revenues than previously communicated by the company, there is some further upside potential:

- Excluding the start-up losses for the ICO and Fintech businesses, the guidance implies an EBT margin improvement of about 5% compared to our long-term assumption
- The performance of the IR business was much better than expected in 2017 and in the first months of 2018 and, while this development could continue for the next years, we rather assume a growth rate of 12.5% in 2019, decreasing slightly in the following years.
- The potential of the ICO and Fintech businesses is not reflected in our model. Even though start-up losses are included, we do not include revenues until first proof of concept is visible.

In a nutshell, Wallstreet:online AG had a very good start to the year which resulted in the guidance increase. We slightly increased our profitability assumptions, which lifted our PT to EUR 50.5. Our recommendation remains Hold.

Changes in Estimates:				Comment on Changes:			
FY End: 31.12. in EUR m	2017e (old)	+ / -	2018e (old)	+ / -	2019e (old)	+ / -	
Sales	5.19	0.0 %	9.42	0.0 %	10.60	0.0 %	▪ Profitability increases slightly based on higher EBIT margins
EBIT	1.92	0.0 %	3.91	6.0 %	4.51	5.5 %	
EPS	1.78	0.0 %	2.34	6.8 %	2.61	6.1 %	

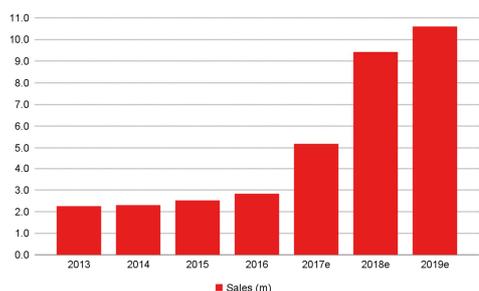


Rel. Performance vs Open Market:	
1 month:	n/a
6 months:	n/a
Year to date:	n/a
Trailing 12 months:	n/a

Company events:	

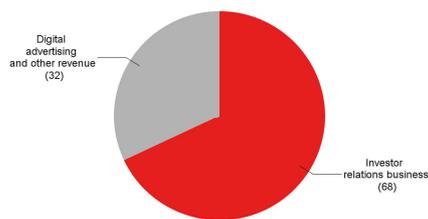
FY End: 31.12. in EUR m	CAGR (16-19e)	2013	2014	2015	2016	2017e	2018e	2019e
Sales	55.3 %	2.25	2.30	2.52	2.83	5.19	9.42	10.60
Change Sales yoy		21.1 %	2.2 %	9.5 %	12.3 %	83.1 %	81.7 %	12.5 %
Gross profit margin		81.5 %	78.3 %	84.3 %	81.3 %	86.9 %	82.5 %	82.4 %
EBITDA	138.5 %	0.28	0.20	0.40	0.38	2.13	4.44	5.10
Margin		12.5 %	8.7 %	15.9 %	13.3 %	41.0 %	47.1 %	48.1 %
EBIT	221.3 %	0.07	-0.07	0.08	0.14	1.92	4.14	4.76
Margin		3.1 %	-2.9 %	3.0 %	5.1 %	37.0 %	44.0 %	44.9 %
Net income	209.6 %	0.08	-0.07	0.08	0.14	1.82	3.84	4.26
EPS	170.5 %	0.08	-0.06	0.08	0.14	1.78	2.50	2.77
EPS adj.	170.5 %	0.08	-0.06	0.08	0.14	1.78	2.50	2.77
DPS	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dividend Yield		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
FCFPS		0.28	0.20	0.34	0.31	1.26	2.16	2.46
EV / Sales		1.4 x	1.0 x	1.2 x	1.0 x	9.8 x	7.8 x	6.6 x
EV / EBITDA		11.6 x	12.0 x	7.8 x	7.4 x	23.9 x	16.7 x	13.8 x
EV / EBIT		46.6 x	n.a.	40.7 x	19.4 x	26.5 x	17.8 x	14.7 x
P / E		55.9 x	n.a.	52.1 x	29.5 x	28.7 x	20.4 x	18.4 x
P / E adj.		55.9 x	n.a.	52.1 x	29.5 x	28.7 x	20.4 x	18.4 x
FCF Potential Yield		8.6 %	8.3 %	12.8 %	13.5 %	4.0 %	5.6 %	6.6 %
Net Debt		-1.29	-1.03	-1.12	-1.43	-1.18	-4.61	-8.39
ROE		4.5 %	-4.2 %	4.9 %	8.3 %	93.1 %	25.0 %	13.9 %
ROCE (NOPAT)		90.4 %	n.a.	15.0 %	32.4 %	n.a.	30.9 %	17.7 %
Guidance:		2018: Revenue EUR 8.4m - 10.3m; EBT EUR 4.5m - 5.5m						

Sales development in EUR m



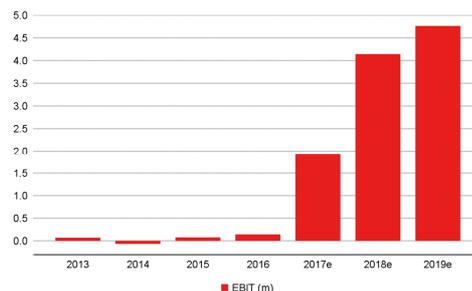
Source: Warburg Research

Revenue Split 2017e; in %



Source: Warburg Research

EBIT development in EUR m



Source: Warburg Research

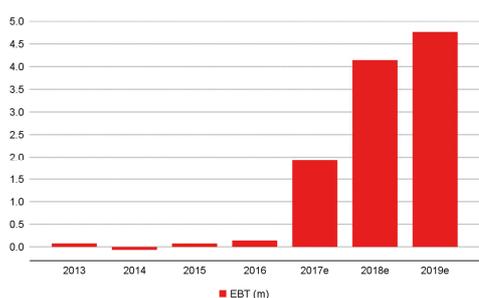
Company Background

- The operation of the German financial information platforms www.wallstreet-online.de and www.boersennews.de forms the core business of the company.
- The financial user forum on www.wallstreet-online.de is the biggest in Germany with more than 460k active users and 1.1m articles on more than 80 topics.
- The users of the portals are very homogeneous and thus attractive for advertisers in terms of specific targeting.
- The company aims at further diversification along the value chain of financial services and capital markets to broaden the offering to the customer.

Competitive Quality

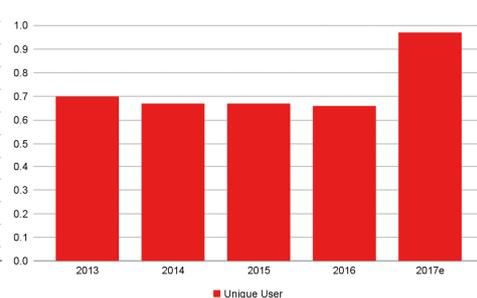
- Strong player in race for number two in German financial portals. Merger with boersennews.de strengthens mobile offering.
- Key differentiator is the large user forum, resulting in a high number of loyal users, who also generate new content.
- Homogeneous user structure makes advertisers' targeting more specific, resulting in comparably high prices for marketing space on the platform.
- Future diversification of revenue streams will reduce cyclicity and, to a certain extent, decouple the company's revenues from capital market developments.

EBT development in EUR m



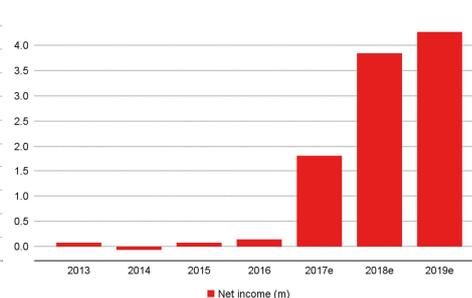
Source: Warburg Research

Unique User Development in m



Source: Warburg Research

Net income development in EUR m



Source: Warburg Research

DCF model

Figures in EUR m	Detailed forecast period			Transitional period										Term. Value
	2017e	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	
Sales	5.19	9.42	10.60	11.66	12.82	13.78	14.82	15.56	16.34	17.15	17.67	18.20	18.75	
Sales change	83.1 %	81.7 %	12.5 %	10.0 %	10.0 %	7.5 %	7.5 %	5.0 %	5.0 %	5.0 %	3.0 %	3.0 %	3.0 %	3.0 %
EBIT	1.92	4.14	4.76	5.36	6.03	6.55	7.11	7.47	7.84	8.23	8.48	8.74	9.00	
EBIT-margin	37.0 %	44.0 %	44.9 %	46.0 %	47.0 %	47.5 %	48.0 %	48.0 %	48.0 %	48.0 %	48.0 %	48.0 %	48.0 %	
Tax rate (EBT)	5.2 %	7.2 %	10.5 %	15.0 %	20.0 %	25.0 %	30.0 %	30.0 %	32.0 %	32.0 %	32.0 %	32.0 %	32.0 %	
NOPAT	1.82	3.84	4.26	4.56	4.82	4.91	4.98	5.23	5.33	5.60	5.77	5.94	6.12	
Depreciation	0.21	0.30	0.33	0.35	0.38	0.41	0.44	0.47	0.49	0.51	0.53	0.55	0.56	
in % of Sales	4.0 %	3.1 %	3.1 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	
Changes in provisions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Change in Liquidity from														
- Working Capital	0.33	0.30	0.20	0.09	0.13	0.11	0.11	0.08	0.09	0.09	0.06	0.06	0.06	
- Capex	0.41	0.51	0.61	0.58	0.58	0.55	0.44	0.47	0.49	0.51	0.53	0.55	0.56	
Capex in % of Sales	7.9 %	5.4 %	5.8 %	5.0 %	4.5 %	4.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Free Cash Flow (WACC Model)	1.28	3.33	3.79	4.23	4.50	4.67	4.87	5.15	5.25	5.51	5.71	5.88	6.06	6
PV of FCF	1.33	3.17	3.31	3.40	3.32	3.16	3.03	2.94	2.76	2.66	2.53	2.40	2.27	40
share of PVs	10.25 %			37.37 %										52.38 %

Model parameter

Derivation of WACC:		Derivation of Beta:	
Debt ratio	5.00 %	Financial Strength	1.00
Cost of debt (after tax)	2.3 %	Liquidity (share)	1.40
Market return	7.00 %	Cyclicality	1.60
Risk free rate	1.50 %	Transparency	1.50
		Others	1.50
WACC	8.85 %	Beta	1.40

Valuation (m)

Present values 2029e	36		
Terminal Value	40		
Financial liabilities	0		
Pension liabilities	0		
Hybrid capital	0		
Minority interest	0		
Market val. of investments	0		
Liquidity	1	No. of shares (m)	1.5
Equity Value	78	Value per share (EUR)	50.40

Sensitivity Value per Share (EUR)

Beta	WACC	Terminal Growth							Beta	WACC	Delta EBIT-margin						
		2.25 %	2.50 %	2.75 %	3.00 %	3.25 %	3.50 %	3.75 %			-1.5 pp	-1.0 pp	-0.5 pp	+0.0 pp	+0.5 pp	+1.0 pp	+1.5 pp
1.59	9.9 %	41.30	41.91	42.56	43.26	44.01	44.83	45.71	1.59	9.9 %	41.86	42.32	42.79	43.26	43.73	44.20	44.67
1.50	9.4 %	44.16	44.90	45.69	46.55	47.47	48.48	49.58	1.50	9.4 %	45.04	45.54	46.04	46.55	47.05	47.55	48.06
1.45	9.1 %	45.75	46.56	47.44	48.39	49.43	50.55	51.78	1.45	9.1 %	46.83	47.35	47.87	48.39	48.92	49.44	49.96
1.40	8.9 %	47.46	48.36	49.34	50.40	51.55	52.82	54.21	1.40	8.9 %	48.77	49.31	49.85	50.40	50.94	51.49	52.03
1.35	8.6 %	49.30	50.31	51.40	52.58	53.88	55.31	56.88	1.35	8.6 %	50.88	51.45	52.02	52.58	53.15	53.72	54.28
1.30	8.4 %	51.30	52.42	53.64	54.97	56.44	58.05	59.84	1.30	8.4 %	53.20	53.79	54.38	54.97	55.56	56.16	56.75
1.21	7.9 %	55.84	57.24	58.79	60.49	62.38	64.48	66.85	1.21	7.9 %	58.54	59.19	59.84	60.49	61.14	61.79	62.44

- We assume EBIT-margin to stand at slightly below 50% in a steady state scenario.

Valuation	2013	2014	2015	2016	2017e	2018e	2019e
Price / Book	2.8 x	2.2 x	2.6 x	2.3 x	24.8 x	2.8 x	2.4 x
Book value per share ex intangibles	1.08	1.14	1.32	1.59	1.69	3.54	6.07
EV / Sales	1.4 x	1.0 x	1.2 x	1.0 x	9.8 x	7.8 x	6.6 x
EV / EBITDA	11.6 x	12.0 x	7.8 x	7.4 x	23.9 x	16.7 x	13.8 x
EV / EBIT	46.6 x	n.a.	40.7 x	19.4 x	26.5 x	17.8 x	14.7 x
EV / EBIT adj.*	46.6 x	n.a.	40.7 x	19.4 x	26.5 x	17.8 x	14.7 x
P / FCF	15.8 x	17.1 x	12.1 x	13.3 x	40.6 x	23.6 x	20.7 x
P / E	55.9 x	n.a.	52.1 x	29.5 x	28.7 x	20.4 x	18.4 x
P / E adj.*	55.9 x	n.a.	52.1 x	29.5 x	28.7 x	20.4 x	18.4 x
Dividend Yield	n.a.						
FCF Potential Yield (on market EV)	8.6 %	8.3 %	12.8 %	13.5 %	4.0 %	5.6 %	6.6 %

*Adjustments made for: -

Company Specific Items	2013	2014	2015	2016	2017e	2018e	2019e
Unique User	0.00	0.00	0.00	0.00	0.00	n.a.	n.a.

Consolidated profit & loss

In EUR m	2013	2014	2015	2016	2017e	2018e	2019e
Sales	2.25	2.30	2.52	2.83	5.19	9.42	10.60
Change Sales yoy	21.1 %	2.2 %	9.5 %	12.3 %	83.1 %	81.7 %	12.5 %
Increase / decrease in inventory	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Own work capitalised	0.23	0.13	0.24	0.09	0.10	0.10	0.10
Total Sales	2.48	2.44	2.76	2.92	5.29	9.52	10.70
Material expenses	0.64	0.63	0.64	0.62	0.78	1.74	1.97
Gross profit	1.84	1.80	2.12	2.30	4.51	7.78	8.73
<i>Gross profit margin</i>	<i>81.5 %</i>	<i>78.3 %</i>	<i>84.3 %</i>	<i>81.3 %</i>	<i>86.9 %</i>	<i>82.5 %</i>	<i>82.4 %</i>
Personnel expenses	1.04	1.22	1.33	1.55	1.82	2.58	2.79
Other operating income	0.06	0.07	0.06	0.00	0.00	0.00	0.00
Other operating expenses	0.58	0.45	0.45	0.38	0.47	0.75	0.85
Unfrequent items	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EBITDA	0.28	0.20	0.40	0.38	2.13	4.44	5.10
<i>Margin</i>	<i>12.5 %</i>	<i>8.7 %</i>	<i>15.9 %</i>	<i>13.3 %</i>	<i>41.0 %</i>	<i>47.1 %</i>	<i>48.1 %</i>
Depreciation of fixed assets	-0.03	-0.03	-0.03	-0.03	0.00	0.00	0.00
EBITA	0.31	0.23	0.43	0.40	2.13	4.44	5.10
Amortisation of intangible assets	0.21	0.27	0.32	0.23	0.21	0.30	0.33
Goodwill amortisation	0.03	0.03	0.03	0.03	0.00	0.00	0.00
EBIT	0.07	-0.07	0.08	0.14	1.92	4.14	4.76
<i>Margin</i>	<i>3.1 %</i>	<i>-2.9 %</i>	<i>3.0 %</i>	<i>5.1 %</i>	<i>37.0 %</i>	<i>44.0 %</i>	<i>44.9 %</i>
EBIT adj.	0.07	-0.07	0.08	0.14	1.92	4.14	4.76
Interest income	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Interest expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other financial income (loss)	0.01	0.00	0.00	0.00	0.00	0.00	0.00
EBT	0.08	-0.07	0.08	0.14	1.92	4.14	4.76
<i>Margin</i>	<i>3.5 %</i>	<i>-2.9 %</i>	<i>3.1 %</i>	<i>5.1 %</i>	<i>37.0 %</i>	<i>44.0 %</i>	<i>44.9 %</i>
Total taxes	0.00	0.00	0.00	0.00	0.10	0.30	0.50
Net income from continuing operations	0.08	-0.07	0.08	0.14	1.82	3.84	4.26
Income from discontinued operations (net of tax)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net income before minorities	0.08	-0.07	0.08	0.14	1.82	3.84	4.26
Minority interest	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net income	0.08	-0.07	0.08	0.14	1.82	3.84	4.26
<i>Margin</i>	<i>3.5 %</i>	<i>-2.9 %</i>	<i>3.1 %</i>	<i>5.1 %</i>	<i>35.1 %</i>	<i>40.8 %</i>	<i>40.2 %</i>
Number of shares, average	1.02	1.02	1.02	1.02	1.02	1.54	1.54
EPS	0.08	-0.06	0.08	0.14	1.78	2.50	2.77
EPS adj.	0.08	-0.06	0.08	0.14	1.78	2.50	2.77

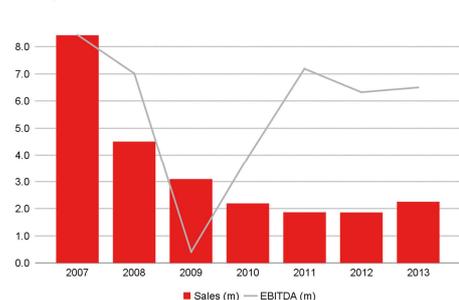
*Adjustments made for:

Guidance: 2018: Revenue EUR 8.4m - 10.3m; EBT EUR 4.5m - 5.5m

Financial Ratios

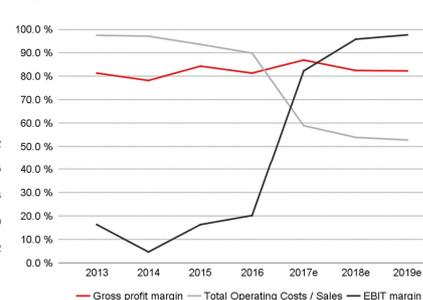
	2013	2014	2015	2016	2017e	2018e	2019e
Total Operating Costs / Sales	97.5 %	97.1 %	93.7 %	89.9 %	59.0 %	53.9 %	52.9 %
Operating Leverage	-2.0 x	n.a.	n.a.	7.1 x	14.9 x	1.3 x	1.2 x
EBITDA / Interest expenses	302063.4 x	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tax rate (EBT)	0.0 %	0.0 %	0.0 %	0.0 %	5.2 %	7.2 %	10.5 %
Dividend Payout Ratio	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Sales per Employee	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Sales, EBITDA
in EUR m



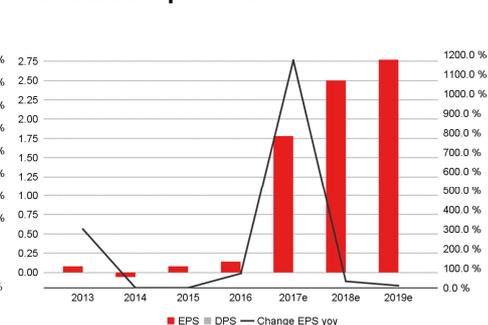
Source: Warburg Research

Operating Performance
in %



Source: Warburg Research

Performance per Share



Source: Warburg Research

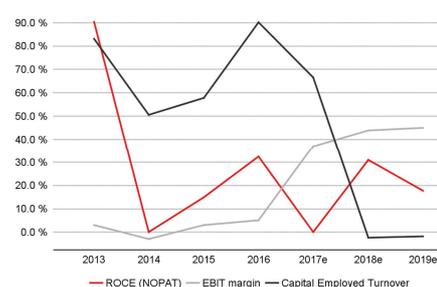
Consolidated balance sheet

In EUR m	2013	2014	2015	2016	2017e	2018e	2019e
Assets							
Goodwill and other intangible assets	0.51	0.39	0.28	0.19	0.38	23.08	23.35
thereof other intangible assets	0.43	0.34	0.25	0.19	0.38	23.08	23.35
thereof Goodwill	0.08	0.05	0.03	0.00	0.00	0.00	0.00
Property, plant and equipment	0.04	0.04	0.03	0.02	0.03	0.04	0.06
Financial assets	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other long-term assets	0.00	0.00	0.05	0.01	0.00	0.00	0.00
Fixed assets	0.56	0.44	0.36	0.22	0.41	23.13	23.40
Inventories	0.00	0.00	0.00	0.00	0.10	0.00	0.00
Accounts receivable	0.30	0.25	0.37	0.39	0.70	1.30	1.50
Liquid assets	1.29	1.03	1.12	1.43	1.18	4.61	8.39
Other short-term assets	0.03	0.02	0.01	0.03	0.03	0.03	0.03
Current assets	1.62	1.30	1.51	1.85	2.01	5.93	9.92
Total Assets	2.20	1.70	1.90	2.10	2.40	29.10	33.30
Liabilities and shareholders' equity							
Subscribed capital	7.67	7.67	2.56	2.56	1.02	1.54	1.54
Capital reserve	0.01	0.01	5.12	5.12	5.12	27.10	27.10
Retained earnings	0.00	0.00	0.00	0.00	-0.10	-0.40	-0.90
Other equity components	-6.06	-6.12	-6.05	-5.87	-3.95	0.30	4.96
Shareholders' equity	1.62	1.55	1.63	1.81	2.10	28.54	32.70
Minority interest	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total equity	1.62	1.55	1.63	1.81	2.10	28.54	32.70
Provisions	0.12	0.09	0.10	0.16	0.16	0.16	0.16
thereof provisions for pensions and similar obligations	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Financial liabilities (total)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
thereof short-term financial liabilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Accounts payable	0.05	0.04	0.05	0.02	0.10	0.30	0.30
Other liabilities	0.37	0.06	0.09	0.08	0.08	0.12	0.12
Liabilities	0.54	0.19	0.24	0.26	0.34	0.57	0.57
Total liabilities and shareholders' equity	2.20	1.70	1.90	2.10	2.40	29.10	33.30

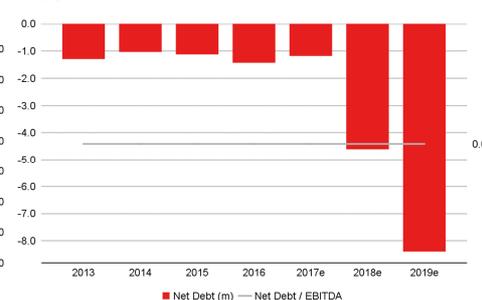
Financial Ratios

	2013	2014	2015	2016	2017e	2018e	2019e
Efficiency of Capital Employment							
Operating Assets Turnover	7.7 x	9.2 x	7.4 x	7.5 x	7.2 x	9.1 x	8.5 x
Capital Employed Turnover	6.9 x	4.4 x	5.0 x	7.4 x	5.6 x	0.4 x	0.4 x
ROA	14.1 %	-15.2 %	21.4 %	65.3 %	441.1 %	16.6 %	18.2 %
Return on Capital							
ROCE (NOPAT)	90.4 %	n.a.	15.0 %	32.4 %	n.a.	30.9 %	17.7 %
ROE	4.5 %	-4.2 %	4.9 %	8.3 %	93.1 %	25.0 %	13.9 %
Adj. ROE	4.5 %	-4.2 %	4.9 %	8.3 %	93.1 %	25.0 %	13.9 %
Balance sheet quality							
Net Debt	-1.29	-1.03	-1.12	-1.43	-1.18	-4.61	-8.39
Net Financial Debt	-1.29	-1.03	-1.12	-1.43	-1.18	-4.61	-8.39
Net Gearing	-79.8 %	-66.5 %	-69.0 %	-79.0 %	-56.2 %	-16.1 %	-25.7 %
Net Fin. Debt / EBITDA	n.a.						
Book Value / Share	1.6	1.5	1.6	1.8	2.1	18.5	21.2
Book value per share ex intangibles	1.1	1.1	1.3	1.6	1.7	3.5	6.1

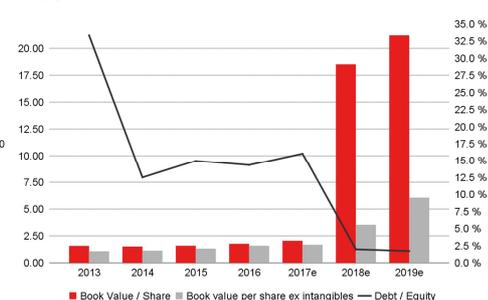
ROCE Development



Net debt in EUR m



Book Value per Share in EUR



Source: Warburg Research

Source: Warburg Research

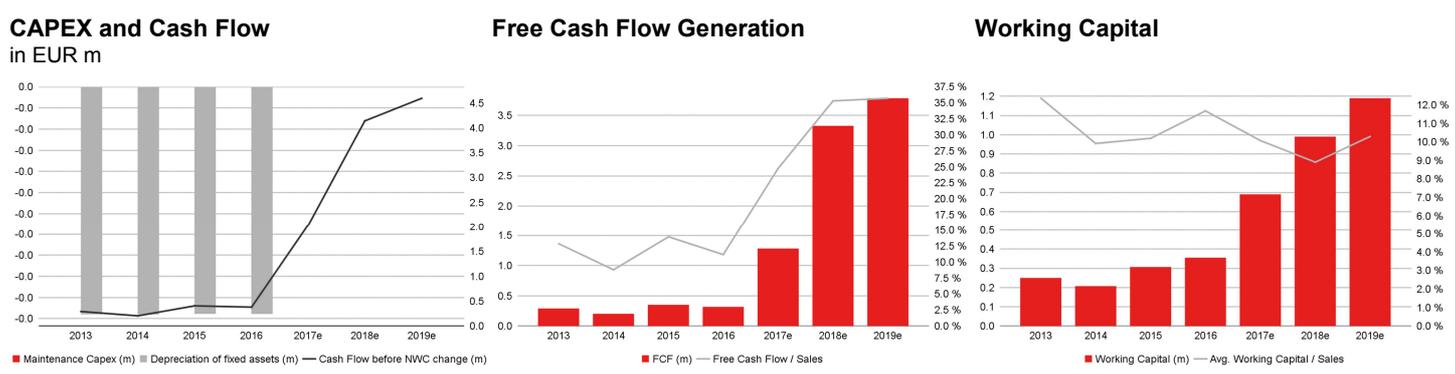
Source: Warburg Research

Consolidated cash flow statement

In EUR m	2013	2014	2015	2016	2017e	2018e	2019e
Net income	0.08	-0.07	0.08	0.14	1.82	3.84	4.26
Depreciation of fixed assets	-0.03	-0.03	-0.03	-0.03	0.00	0.00	0.00
Amortisation of goodwill	0.03	0.03	0.03	0.03	0.00	0.00	0.00
Amortisation of intangible assets	0.21	0.27	0.32	0.23	0.21	0.30	0.33
Increase/decrease in long-term provisions	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other non-cash income and expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cash Flow before NWC change	0.29	0.20	0.40	0.38	2.03	4.14	4.60
Increase / decrease in inventory	0.00	0.00	0.00	0.00	-0.10	0.10	0.00
Increase / decrease in accounts receivable	0.00	0.00	0.00	-0.02	-0.31	-0.60	-0.20
Increase / decrease in accounts payable	0.00	0.00	0.00	-0.03	0.08	0.20	0.00
Increase / decrease in other working capital positions	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Increase / decrease in working capital (total)	0.00	0.00	0.00	-0.05	-0.33	-0.30	-0.20
Net cash provided by operating activities [1]	0.29	0.20	0.40	0.33	1.69	3.84	4.40
Investments in intangible assets	0.00	0.00	0.00	0.00	-0.40	-0.50	-0.60
Investments in property, plant and equipment	0.00	0.00	-0.05	-0.01	-0.01	-0.01	-0.01
Payments for acquisitions	0.00	0.00	0.00	0.00	0.00	-22.50	0.00
Financial investments	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Income from asset disposals	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net cash provided by investing activities [2]	0.00	0.00	-0.05	-0.01	-0.41	-23.01	-0.61
Change in financial liabilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dividends paid	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Purchase of own shares	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Capital measures	0.00	0.00	0.00	0.00	-1.53	22.50	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net cash provided by financing activities [3]	0.00	0.00	0.00	0.00	-1.53	22.50	0.00
Change in liquid funds [1]+[2]+[3]	0.29	0.20	0.35	0.32	-0.25	3.33	3.79
Effects of exchange-rate changes on cash	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cash and cash equivalent at end of period	1.83	1.49	1.38	1.44	1.18	4.61	8.39

Financial Ratios

	2013	2014	2015	2016	2017e	2018e	2019e
Cash Flow							
FCF	0.29	0.20	0.35	0.32	1.28	3.33	3.79
Free Cash Flow / Sales	12.8 %	8.8 %	13.9 %	11.2 %	24.7 %	35.3 %	35.7 %
Free Cash Flow Potential	0.28	0.20	0.40	0.38	2.03	4.14	4.60
Free Cash Flow / Net Profit	368.3 %	-305.1 %	453.6 %	220.4 %	70.4 %	86.6 %	88.8 %
Interest Received / Avg. Cash	1.1 %	0.1 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Interest Paid / Avg. Debt	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Management of Funds							
Investment ratio	0.0 %	0.0 %	2.0 %	0.4 %	7.9 %	5.4 %	5.8 %
Maint. Capex / Sales	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Capex / Dep	0.0 %	0.0 %	15.4 %	4.5 %	197.9 %	172.2 %	182.9 %
Avg. Working Capital / Sales	12.4 %	9.9 %	10.2 %	11.7 %	10.1 %	8.9 %	10.3 %
Trade Debtors / Trade Creditors	640.2 %	599.0 %	709.1 %	1647.1 %	700.0 %	433.3 %	500.0 %
Inventory Turnover	n.a.	n.a.	n.a.	n.a.	7.8 x	n.a.	n.a.
Receivables collection period (days)	48	39	53	50	49	50	52
Payables payment period (days)	26	24	30	14	47	63	56
Cash conversion cycle (Days)	n.a.	n.a.	n.a.	n.a.	2	n.a.	n.a.



Source: Warburg Research

LEGAL DISCLAIMER

This research report ("investment recommendation") was prepared by the Warburg Research GmbH, a fully owned subsidiary of the M.M.Warburg & CO (AG & Co.) KGaA and is passed on by the M.M.Warburg & CO (AG & Co.) KGaA. It is intended solely for the recipient and may not be passed on to another company without their prior consent, regardless of whether the company is part of the same corporation or not. It contains selected information and does not purport to be complete. The investment recommendation is based on publicly available information and data ("information") believed to be accurate and complete. Warburg Research GmbH neither examines the information for accuracy and completeness, nor guarantees its accuracy and completeness. Possible errors or incompleteness of the information do not constitute grounds for liability of M.M.Warburg & CO (AG & Co.) KGaA or Warburg Research GmbH for damages of any kind whatsoever, and M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH are not liable for indirect and/or direct and/or consequential damages. In particular, neither M.M.Warburg & CO (AG & Co.) KGaA nor Warburg Research GmbH are liable for the statements, plans or other details contained in these investment recommendations concerning the examined companies, their affiliated companies, strategies, economic situations, market and competitive situations, regulatory environment, etc. Although due care has been taken in compiling this investment recommendation, it cannot be excluded that it is incomplete or contains errors. M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH, their shareholders and employees are not liable for the accuracy and completeness of the statements, estimations and the conclusions derived from the information contained in this investment recommendation. Provided a investment recommendation is being transmitted in connection with an existing contractual relationship, i.e. financial advisory or similar services, the liability of M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH shall be restricted to gross negligence and wilful misconduct. In case of failure in essential tasks, M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH are liable for normal negligence. In any case, the liability of M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH is limited to typical, expectable damages. This investment recommendation does not constitute an offer or a solicitation of an offer for the purchase or sale of any security. Partners, directors or employees of M.M.Warburg & CO (AG & Co.) KGaA, Warburg Research GmbH or affiliated companies may serve in a position of responsibility, i.e. on the board of directors of companies mentioned in the report. Opinions expressed in this investment recommendation are subject to change without notice. All rights reserved.

COPYRIGHT NOTICE

This work including all its parts is protected by copyright. Any use beyond the limits provided by copyright law without permission is prohibited and punishable. This applies, in particular, to reproductions, translations, microfilming, and storage and processing on electronic media of the entire content or parts thereof.

DISCLOSURE ACCORDING TO §85 OF THE GERMAN SECURITIES TRADING ACT (WHPG), MAR AND MIFID II INCL. COMMISSION DELEGATED REGULATION (EU) 2016/958 AND (EU) 2017/565

The valuation underlying the investment recommendation for the company analysed here is based on generally accepted and widely used methods of fundamental analysis, such as e.g. DCF Model, Free Cash Flow Potential, Peer Group Comparison or Sum of the Parts Model (see also <http://www.mmwarburg.de/disclaimer/disclaimer.htm#Valuation>). The result of this fundamental valuation is modified to take into consideration the analyst's assessment as regards the expected development of investor sentiment and its impact on the share price.

Independent of the applied valuation methods, there is the risk that the price target will not be met, for instance because of unforeseen changes in demand for the company's products, changes in management, technology, economic development, interest rate development, operating and/or material costs, competitive pressure, supervisory law, exchange rate, tax rate etc. For investments in foreign markets and instruments there are further risks, generally based on exchange rate changes or changes in political and social conditions.

This commentary reflects the opinion of the relevant author at the point in time of its compilation. A change in the fundamental factors underlying the valuation can mean that the valuation is subsequently no longer accurate. Whether, or in what time frame, an update of this commentary follows is not determined in advance.

Additional internal and organisational arrangements to prevent or to deal with conflicts of interest have been implemented. Among these are the spatial separation of Warburg Research GmbH from M.M.Warburg & CO (AG & Co.) KGaA and the creation of areas of confidentiality. This prevents the exchange of information, which could form the basis of conflicts of interest for Warburg Research in terms of the analysed issuers or their financial instruments.

The analysts of Warburg Research GmbH do not receive a gratuity – directly or indirectly – from the investment banking activities of M.M.Warburg & CO (AG & Co.) KGaA or of any company within the Warburg-Group.

All prices of financial instruments given in this investment recommendation are the closing prices on the last stock-market trading day before the publication date stated, unless another point in time is explicitly stated.

M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH are subject to the supervision of the Federal Financial Supervisory Authority, BaFin. M.M.Warburg & CO (AG & Co.) KGaA is additionally subject to the supervision of the European Central Bank (ECB).

SOURCES

All data and consensus estimates have been obtained from FactSet except where stated otherwise.

Additional information for clients in the United States

1. This research report (the "Report") is a product of Warburg Research GmbH, Germany, a fully owned subsidiary of M.M.Warburg & CO (AG & Co.) KGaA, Germany (in the following collectively "Warburg"). Warburg is the employer of the research analyst(s), who have prepared the Report. The research analyst(s) reside outside the United States and are not associated persons of any U.S. regulated broker-dealer and therefore are not subject to the supervision of any U.S. regulated broker-dealer.
2. The Report is provided in the United States for distribution solely to "major U.S. institutional investors" under Rule 15a-6 of the U.S. Securities Exchange Act of 1934.
3. Any recipient of the Report should effect transactions in the securities discussed in the Report only through J.P.P. Euro-Securities, Inc., Delaware.
4. J.P.P. Euro-Securities, Inc. does not accept or receive any compensation of any kind for the dissemination of the research reports from Warburg.

Reference in accordance with section 85 of the German Securities Trading Act (WpHG) and Art. 20 MAR regarding possible conflicts of interest with companies analysed:

- 1- Warburg Research, or an affiliated company, or an employee of one of these companies responsible for the compilation of the research, hold a **share of more than 5%** of the equity capital of the analysed company.
- 2- Warburg Research, or an affiliated company, within the last twelve months participated in the **management of a consortium** for an issue in the course of a public offering of such financial instruments, which are, or the issuer of which is, the subject of the investment recommendation.
- 3- Companies affiliated with Warburg Research **manage financial instruments**, which are, or the issuers of which are, subject of the investment recommendation, in a market based on the provision of buy or sell contracts.
- 4- MMWB, Warburg Research, or an affiliated company, reached an agreement with the issuer to provide **investment banking and/or investment services** and the relevant agreement was in force in the last 12 months or there arose for this period, based on the relevant agreement, the obligation to provide or to receive a service or compensation - provided that this disclosure does not result in the disclosure of confidential business information.
- 5- The company compiling the analysis or an affiliated company had reached an **agreement on the compilation of the investment recommendation** with the analysed company.
- 6- Companies affiliated with Warburg Research **regularly trade** financial instruments of the analysed company or derivatives of these.
- 6a- Warburg Research, or an affiliated company, holds a **net long position of more than 0.5%** of the total issued share capital of the analysed company.
- 6b- Warburg Research, or an affiliated company, holds a **net short position of more than 0.5%** of the total issued share capital of the analysed company.
- 6c- The issuer holds shares of more than 5% of the total issued capital of Warburg Research or an affiliated company.
- 7- The company preparing the analysis as well as its affiliated companies and employees have **other important interests** in relation to the analysed company, such as, for example, the exercising of mandates at analysed companies.

Company	Disclosure	Link to the historical price targets and rating changes (last 12 months)
wallstreet:online	4, 5	http://www.mmwarburg.com/disclaimer/disclaimer_en/DE000A2GS609.htm

INVESTMENT RECOMMENDATION

Investment recommendation: expected direction of the share price development of the financial instrument up to the given price target in the opinion of the analyst who covers this financial instrument.

-B-	Buy:	The price of the analysed financial instrument is expected to rise over the next 12 months.
-H-	Hold:	The price of the analysed financial instrument is expected to remain mostly flat over the next 12 months.
-S-	Sell:	The price of the analysed financial instrument is expected to fall over the next 12 months.
“-“	Rating suspended:	The available information currently does not permit an evaluation of the company.

WARBURG RESEARCH GMBH – ANALYSED RESEARCH UNIVERSE BY RATING

Rating	Number of stocks	% of Universe
Buy	111	54
Hold	92	44
Sell	4	2
Rating suspended	0	0
Total	207	100

WARBURG RESEARCH GMBH – ANALYSED RESEARCH UNIVERSE BY RATING ...

... taking into account only those companies which were provided with major investment services in the last twelve months.

Rating	Number of stocks	% of Universe
Buy	32	73
Hold	12	27
Sell	0	0
Rating suspended	0	0
Total	44	100

PRICE AND RATING HISTORY WALLSTREET:ONLINE AS OF 24.04.2018



Markings in the chart show rating changes by Warburg Research GmbH in the last 12 months. Every marking details the date and closing price on the day of the rating change.

EQUITIES

Roland Rapelius +49 40 3282-2673
Head of Equities rrapelius@mmwarburg.com

RESEARCH

Michael Heider +49 40 309537-280
Head of Research mheider@warburg-research.com

Henner Rüschemeyer +49 40 309537-270
Head of Research hrueschmeier@warburg-research.com

Lucas Boventer +49 40 309537-290
Renewables, Internet, Media lboventer@warburg-research.com

Christian Cohrs +49 40 309537-175
Engineering, Logistics ccohrs@warburg-research.com

Felix Ellmann +49 40 309537-120
Software, IT fellmann@warburg-research.com

Jörg Philipp Frey +49 40 309537-258
Retail, Consumer Goods jfrey@warburg-research.com

Marius Fuhrberg +49 40 309537-185
Small Cap Research mfuhrberg@warburg-research.com

Ulrich Huwald +49 40 309537-255
Health Care, Pharma uhuwald@warburg-research.com

Thilo Kleibauer +49 40 309537-257
Retail, Consumer Goods tkleibauer@warburg-research.com

Eggert Kuls +49 40 309537-256
Engineering ekuls@warburg-research.com

Andreas Pläsier +49 40 309537-246
Banks, Financial Services aplaesier@warburg-research.com

Jochen Reichert +49 40 309537-130
Telco, Internet, Media jreichert@warburg-research.com

J. Moritz Rieser +49 40 309537-260
Real Estate mrieser@warburg-research.com

Arash Roshan Zamir +49 40 309537-155
Cap. Goods, Renewables aroshanzamir@warburg-research.com

Malte Schaumann +49 40 309537-170
Technology mschaumann@warburg-research.com

Patrick Schmidt +49 40 309537-125
Leisure, Internet pschmidt@warburg-research.com

Oliver Schwarz +49 40 309537-250
Chemicals, Agriculture oschwarz@warburg-research.com

Marc-René Tonn +49 40 309537-259
Automobiles, Car Suppliers mtonn@warburg-research.com

Björn Voss +49 40 309537-254
Steel, Car Suppliers bvoss@warburg-research.com

Alexander Wahl +49 40 309537-230
Car Suppliers, Construction awahl@warburg-research.com

Andreas Wolf +49 40 309537-140
Software, IT awolf@warburg-research.com

INSTITUTIONAL EQUITY SALES

Holger Nass +49 40 3282-2669
Head of Equity Sales, USA hnass@mmwarburg.com

Klaus Schilling +49 40 3282-2664
Dep. Head of Equity Sales, GER kschilling@mmwarburg.com

Tim Beckmann +49 40 3282-2665
United Kingdom tbeckmann@mmwarburg.com

Lyubka Bogdanova +49 69 5050-7411
United Kingdom, Australia lbogdanova@mmwarburg.com

Jens Buchmüller +49 69 5050-7415
Scandinavia, Austria jbuchmueller@mmwarburg.com

Paul Dontenwill +49 40 3282-2666
USA, Poland, The Netherlands pdontenwill@mmwarburg.com

Matthias Fritsch +49 40 3282-2696
United Kingdom mfritsch@mmwarburg.com

Michael Kriszun +49 40 3282-2695
United Kingdom mkriszun@mmwarburg.com

Marc Niemann +49 40 3282-2660
Germany mniemann@mmwarburg.com

Sanjay Oberoi +49 69 5050-7410
United Kingdom soberoi@mmwarburg.com

Simon Pallhuber +49 69 5050-7414
Switzerland, France spallhuber@mmwarburg.com

Angelika Flegler +49 69 5050-7417
Roadshow/Marketing aflegler@mmwarburg.com

Juliane Willenbruch +49 40 3282-2694
Roadshow/Marketing jwillenbruch@mmwarburg.com

SALES TRADING

Oliver Merkel +49 40 3282-2634
Head of Sales Trading omerckel@mmwarburg.com

Elyaz Dust +49 40 3282-2702
Sales Trading edust@mmwarburg.com

Michael Ilgenstein +49 40 3282-2700
Sales Trading milgenstein@mmwarburg.com

Bastian Quast +49 40 3282-2701
Sales Trading bquast@mmwarburg.com

Jörg Treptow +49 40 3282-2658
Sales Trading jtreptow@mmwarburg.com

Jan Walter +49 40 3282-2662
Sales Trading jwalter@mmwarburg.com

MACRO RESEARCH

Carsten Klude +49 40 3282-2572
Macro Research cklude@mmwarburg.com

Dr. Christian Jasperneite +49 40 3282-2439
Investment Strategy cjasperneite@mmwarburg.com

Our research can be found under:

Warburg Research research.mmwarburg.com/en/index.html
Bloomberg MMWA GO
FactSet www.factset.com

Thomson Reuters www.thomsonreuters.com
Capital IQ www.capitaliq.com

For access please contact:

Andrea Schaper +49 40 3282-2632
Sales Assistance aschaper@mmwarburg.com

Kerstin Muthig +49 40 3282-2703
Sales Assistance kmuthig@mmwarburg.com