

<b>Hold</b>  <b>EUR 40.10</b>  Price <b>Downside</b>	(Buy)  (EUR 38.40)  EUR 40.25 <b>-0.4 %</b>	<b>Value Indicators:</b> EUR SotP 20e: 40.10	<b>Share data:</b> Bloomberg: DBAN GR Reuters: DBANn.DE ISIN: DE000A1TNUT7	<b>Description:</b> Private equity both as an advisor and as a co-investor focused on the German Mittelstand
		<b>Market Snapshot:</b> EUR m Market cap: 606 No. of shares (m): 15 EV: 547 Freefloat MC: 496 Ø Trad. Vol. (30d): 489.09 th	<b>Shareholders:</b> Freefloat: 81.9 % Family offices: 18.1 %	<b>Risk Profile (WRe):</b> 2018/19e Beta: 1.0 Price / Book: 1.3 x Equity Ratio: 94 %

## Sale of inexo investment to dominate Q4 and FY 2018/19 results

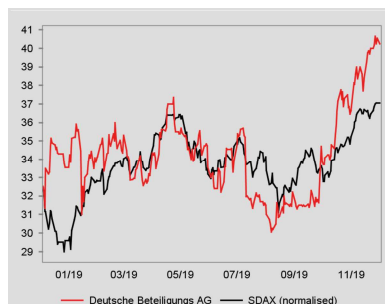
DBAG will release FY 2018/19 figures on December, 10. Until the announced sale of its investment in inexo in September, the company was guiding for a net income significantly below (>-40%) the 5-year average of EUR 48m but had stated that the result would still be positive. Proceeds from the inexo disposal exceeded the DCF-derived fair value by ca EUR 30m as of June 30 and will be booked as profit in Q4 of fiscal 2018/19 (30.9.). Previously, we were expecting a net result of EUR 11m. Adding the EUR 30m gain from the sale of the inexo stake, we raised our estimate to EUR 41m for FY 2018/19. In mid-November, DBAG announced that net result would be in the range of EUR 43–45m. While the net asset value of private equity business was slightly higher, it nevertheless suffered again from the unfavourable development of capital market multiples, which are used to evaluate the portfolio, in cyclical sectors such as automotive and wind power.

EUR m	Q4 18/19e	Q4 17/18	yoy	FY 18/19e	FY 17/18	yoy
(1) Net result of investment activity	31.6	5.6	463.8%	48.5	34.1	42.1%
Fee income of fund management and						
(2) advisory services	7.7	6.7	14.0%	28.0	28.5	-1.9%
<b>(1) + (2)</b>	<b>39.3</b>	<b>12.3</b>	<b>218.5%</b>	<b>76.5</b>	<b>62.7</b>	<b>22.1%</b>
EBT	31.3	2.1	1412.0%	43.9	29.7	47.6%
Net income	31.2	2.0	1427.4%	43.9	29.7	47.7%
<b>EPS</b>	<b>2.08</b>	<b>0.14</b>	<b>1385.7%</b>	<b>2.92</b>	<b>1.97</b>	<b>48.2%</b>

The expectations for Q4 are dominated by the EUR 30m profit contribution from the sale of inexo. Stripping out this item, Q4 would have been close to last year's result. Guidance for the new fiscal year 2019/20 will be of more importance. Our unchanged estimate includes a 36%-decline on the updated 5-year average. DBAG's results are rather volatile on an annual basis, owing to divestments, stock market development and operating performance of the portfolio companies. As always, the guidance does not include any impact from portfolio valuation in connection with peer-group multiples based on stock market valuation. However, this can have a significant impact on the results.

We downgrade the share from Buy to Hold as our price target has been achieved following a 25% rally over the last three months.

Changes in Estimates:							Comment on Changes:	
FY End: 30.9. in EUR m	2018/19e (old)	+ / -	2019/20e (old)	+ / -	2020/21e (old)	+ / -	<ul style="list-style-type: none"> <li>In accordance with the company's ad-hoc release we have raised our assumptions for net result, EPS and dividend for fiscal 2018/19.</li> <li>Expectation for dividend also raised for the subsequent years, taking into account the company's policy to keep dividend at least stable and to raise the dividend whenever possible.</li> </ul>	
<b>Net result of</b>	74	4.1 %	63	0.0 %	76	0.0 %		
<b>EPS</b>	2.72	7.4 %	1.96	0.0 %	2.77	0.0 %		
<b>DPS</b>	1.45	3.4 %	1.45	3.4 %	1.45	3.4 %		

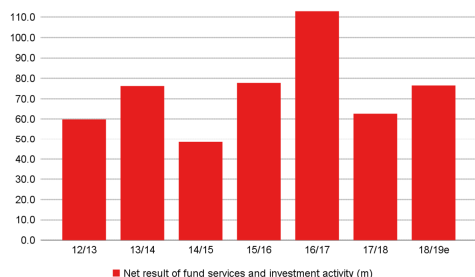


Rel. Performance vs SDAX:	
1 month:	4.6 %
6 months:	9.5 %
Year to date:	-5.3 %
Trailing 12 months:	4.9 %

### Company events:

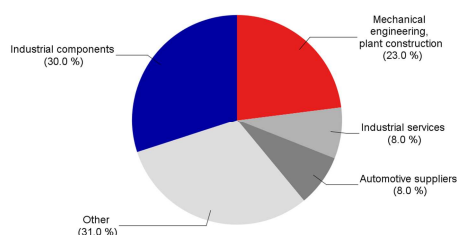
FY End: 30.9. in EUR m	CAGR (17/18-20/21e)	2014/15	2015/16	2016/17	2017/18	2018/19e	2019/20e	2020/21e
<b>Net result of fund services and investment activity</b>	6.6 %	48	78	113	63	77	63	76
Net result investment activity		29	59	86	34	49	31	41
Fee income fund services		19	18	27	29	28	32	35
<b>EBIT</b>	11.7 %	27	50	82	30	44	30	42
<b>EBT</b>		27	49	82	30	44	30	42
<b>Net income</b>	11.9 %	27	49	82	30	44	29	42
<b>EPS</b>	12.0 %	1.98	3.60	5.45	1.97	2.92	1.96	2.77
<b>DPS</b>	1.1 %	1.00	1.20	1.40	1.45	1.50	1.50	1.50
Dividend Yield		3.6 %	4.3 %	3.8 %	3.6 %	3.7 %	3.7 %	3.7 %
<b>NAV per share</b>		22.16	26.91	29.01	29.50	30.91	31.37	32.64
<b>Return on NAV</b>		9.9 %	27.2 %	12.8 %	6.8 %	10.2 %	6.7 %	9.3 %
<b>P / E</b>		14.0 x	7.7 x	6.8 x	20.4 x	13.8 x	20.5 x	14.5 x
<b>Net Debt</b>		-20	-42	-150	-51	-58	-25	-4
<b>ROE</b>		8.9 %	14.7 %	20.3 %	6.7 %	9.7 %	6.3 %	8.7 %
<b>ROCE (NOPAT)</b>		9.4 %	16.4 %	26.8 %	8.9 %	11.0 %	6.9 %	9.0 %
<b>Guidance:</b>	Net income between EUR 43 - 45m							

## Net result fund services & investments in EUR m



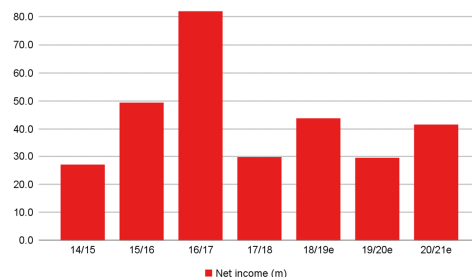
Source: Deutsche Beteiligungs AG, Warburg Research

## Portfolio by industry 2017/18; in %



Source: Deutsche Beteiligungs AG, Warburg Research

## Net income in EUR m



Source: Deutsche Beteiligungs AG, Warburg Research

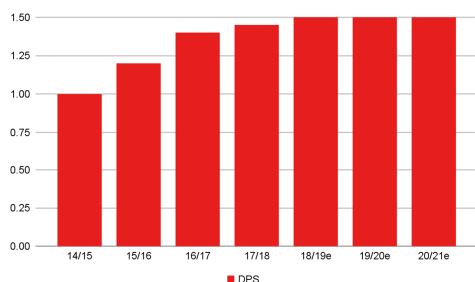
## Company Background

- Deutsche Beteiligungs AG (DBAG) is a publicly-listed private equity firm sponsoring management buyouts (MBOs) and financing expansion capital.
- DBAG's business model is to invest its own funds (Private Equity Investments Segment) alongside funds it manages and for which it earns fees (Fund Investment Services Segment) helping cover fixed costs.

## Competitive Quality

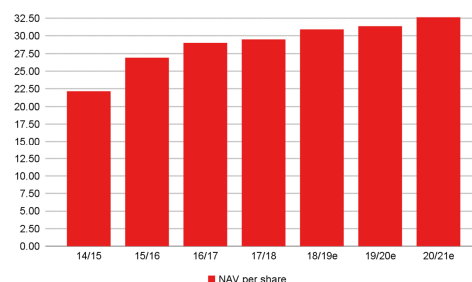
- DBAG has a tight focus on mainly direct investments in unlisted, operationally healthy German Mittelstand companies in the industrials and services sector with sales volumes of EUR 50m – 500m p.a.
- Differentiation is based on DBAG's long-standing track record. Since it was founded in 1965, DBAG has made more than 300 private equity investments.
- Investors value this experience which cannot be matched by new entrants and the very solid track record of generating a 15-year average return for shareholders above 15%.

## Dividend per share in EUR



Source: Deutsche Beteiligungs AG, Warburg Research

## Net asset value per share in EUR



Source: Deutsche Beteiligungs AG, Warburg Research

Valuation	2014/15	2015/16	2016/17	2017/18	2018/19e	2019/20e	2020/21e
Price / Book	1.2 x	1.0 x	1.3 x	1.4 x	1.3 x	1.3 x	1.2 x
Book value per share ex intangibles	22.12	26.85	28.97	29.47	30.89	31.34	32.61
EV / Sales	7.4 x	4.3 x	3.6 x	8.8 x	7.2 x	9.2 x	7.9 x
EV / EBITDA	13.4 x	6.8 x	4.9 x	18.4 x	12.4 x	19.6 x	14.4 x
EV / EBIT	13.4 x	6.8 x	4.9 x	18.4 x	12.4 x	19.6 x	14.4 x
EV / EBIT adj.*	13.4 x	6.8 x	4.9 x	18.4 x	12.4 x	19.6 x	14.4 x
P / FCF	56.2 x	n.a.	n.a.	64.6 x	43.4 x	n.a.	309.6 x
P / E	14.0 x	7.7 x	6.8 x	20.4 x	13.8 x	20.5 x	14.5 x
P / E adj.*	14.0 x	7.7 x	6.8 x	20.4 x	13.8 x	20.5 x	14.5 x
Dividend Yield	3.6 %	4.3 %	3.8 %	3.6 %	3.7 %	3.7 %	3.7 %
FCF Potential Yield (on market EV)	7.5 %	14.8 %	20.3 %	5.4 %	8.0 %	5.1 %	7.0 %

\*Adjustments made for: -

Company Specific Items	2014/15	2015/16	2016/17	2017/18	2018/19e	2019/20e	2020/21e
NAV per share	22.16	26.91	29.01	29.50	30.91	31.37	32.64
Return on NAV	9.9 %	27.2 %	12.8 %	6.8 %	10.2 %	6.7 %	9.3 %
Net result investment activity	29	59	86	34	49	31	41
Fee income fund services	19	18	27	29	28	32	35
Net result of fund services and investment activity	48	78	113	63	77	63	76

## Consolidated profit & loss

In EUR m	2014/15	2015/16	2016/17	2017/18	2018/19e	2019/20e	2020/21e
<b>Net result of fund services and investment activity</b>	<b>48</b>	<b>78</b>	<b>113</b>	<b>63</b>	<b>77</b>	<b>63</b>	<b>76</b>
Net result investment activity	29	59	86	34	49	31	41
Fee income fund services	19	18	27	29	28	32	35
Personnel expenses	15	16	21	17	20	21	21
Other operating income	7	7	5	4	6	6	6
Other operating expenses	13	19	14	19	18	18	19
Unfrequent items	0	0	0	0	0	0	0
<b>EBITDA</b>	<b>27</b>	<b>50</b>	<b>82</b>	<b>30</b>	<b>44</b>	<b>30</b>	<b>42</b>
<i>Margin</i>	55.3 %	64.1 %	73.0 %	48.0 %	57.5 %	47.1 %	55.1 %
Depreciation of fixed assets	0	0	0	0	0	0	0
<b>EBITA</b>	<b>27</b>	<b>50</b>	<b>82</b>	<b>30</b>	<b>44</b>	<b>30</b>	<b>42</b>
Amortisation of intangible assets	0	0	0	0	0	0	0
Goodwill amortisation	0	0	0	0	0	0	0
<b>EBIT</b>	<b>27</b>	<b>50</b>	<b>82</b>	<b>30</b>	<b>44</b>	<b>30</b>	<b>42</b>
<i>Margin</i>	55.3 %	64.1 %	73.0 %	48.0 %	57.5 %	47.1 %	55.1 %
<b>EBIT adj.</b>	<b>27</b>	<b>50</b>	<b>82</b>	<b>30</b>	<b>44</b>	<b>30</b>	<b>42</b>
Interest income	0	0	0	0	1	1	1
Interest expenses	0	1	1	1	1	1	1
Other financial income (loss)	0	0	0	0	0	0	0
<b>EBT</b>	<b>27</b>	<b>49</b>	<b>82</b>	<b>30</b>	<b>44</b>	<b>30</b>	<b>42</b>
<i>Margin</i>	55.9 %	63.4 %	72.6 %	47.5 %	57.4 %	46.8 %	54.9 %
Total taxes	0	0	0	0	0	0	0
<b>Net income from continuing operations</b>	<b>27</b>	<b>49</b>	<b>82</b>	<b>30</b>	<b>44</b>	<b>29</b>	<b>42</b>
Income from discontinued operations (net of tax)	0	0	0	0	0	0	0
<b>Net income before minorities</b>	<b>27</b>	<b>49</b>	<b>82</b>	<b>30</b>	<b>44</b>	<b>29</b>	<b>42</b>
Minority interest	0	0	0	0	0	0	0
<b>Net income</b>	<b>27</b>	<b>49</b>	<b>82</b>	<b>30</b>	<b>44</b>	<b>29</b>	<b>42</b>
<i>Margin</i>	55.8 %	63.6 %	72.6 %	47.4 %	57.3 %	46.8 %	54.8 %
Number of shares, average	14	14	15	15	15	15	15
<b>EPS</b>	<b>1.98</b>	<b>3.60</b>	<b>5.45</b>	<b>1.97</b>	<b>2.92</b>	<b>1.96</b>	<b>2.77</b>
EPS adj.	1.98	3.60	5.45	1.97	2.92	1.96	2.77

\*Adjustments made for:

**Guidance: Net income between EUR 43 - 45m**

## Financial Ratios

	2014/15	2015/16	2016/17	2017/18	2018/19e	2019/20e	2020/21e
EBITDA / Interest expenses	171.7 x	84.9 x	148.2 x	42.9 x	62.9 x	37.1 x	52.4 x
Tax rate (EBT)	0.1 %	-0.3 %	0.0 %	0.1 %	0.0 %	0.1 %	0.1 %
Dividend Payout Ratio	50.6 %	33.3 %	25.7 %	73.4 %	51.4 %	76.6 %	54.1 %

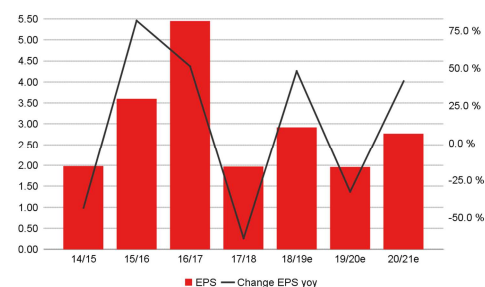
## Net result fund services & investments

in EUR m



Source: Warburg Research

## Performance per Share



Source: Warburg Research

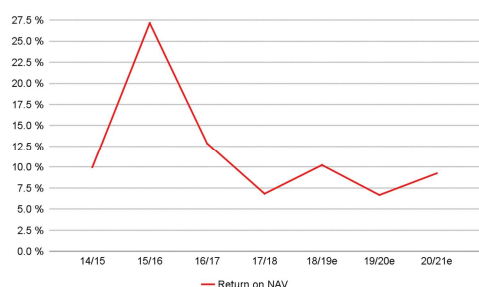
## Consolidated balance sheet

In EUR m	2014/15	2015/16	2016/17	2017/18	2018/19e	2019/20e	2020/21e
<b>Assets</b>							
Goodwill and other intangible assets	1	1	1	0	0	0	0
thereof other intangible assets	0	0	0	0	0	0	0
thereof Goodwill	0	0	0	0	0	0	0
Property, plant and equipment	1	1	1	1	1	2	2
Financial assets	277	330	288	374	379	423	460
Other long-term assets	0	0	0	0	0	0	0
<b>Fixed assets</b>	<b>279</b>	<b>332</b>	<b>290</b>	<b>376</b>	<b>381</b>	<b>425</b>	<b>463</b>
Inventories	0	0	0	0	0	0	0
Accounts receivable	0	0	0	0	0	0	0
Liquid assets	28	57	162	64	71	38	18
Other short-term assets	20	15	13	42	42	42	42
<b>Current assets</b>	<b>49</b>	<b>73</b>	<b>174</b>	<b>106</b>	<b>113</b>	<b>80</b>	<b>60</b>
<b>Total Assets</b>	<b>327</b>	<b>405</b>	<b>464</b>	<b>481</b>	<b>494</b>	<b>506</b>	<b>523</b>
<b>Liabilities and shareholders' equity</b>							
Subscribed capital	49	53	53	53	53	53	53
Capital reserve	141	174	174	174	174	174	174
Retained earnings	-4	32	95	104	125	132	151
Other equity components	117	111	114	113	113	113	113
Shareholders' equity	303	370	436	444	465	472	491
Minority interest	0	0	0	0	0	0	0
<b>Total equity</b>	<b>303</b>	<b>370</b>	<b>437</b>	<b>444</b>	<b>465</b>	<b>472</b>	<b>491</b>
Provisions	23	32	26	21	23	25	26
thereof provisions for pensions and similar obligations	9	16	11	12	13	14	14
Financial liabilities (total)	0	0	0	0	0	0	0
thereof short-term financial liabilities	0	0	0	0	0	0	0
Accounts payable	0	0	0	0	0	0	0
Other liabilities	1	2	1	16	5	9	6
<b>Liabilities</b>	<b>24</b>	<b>35</b>	<b>27</b>	<b>37</b>	<b>28</b>	<b>34</b>	<b>32</b>
<b>Total liabilities and shareholders' equity</b>	<b>327</b>	<b>405</b>	<b>464</b>	<b>481</b>	<b>494</b>	<b>506</b>	<b>523</b>

## Financial Ratios

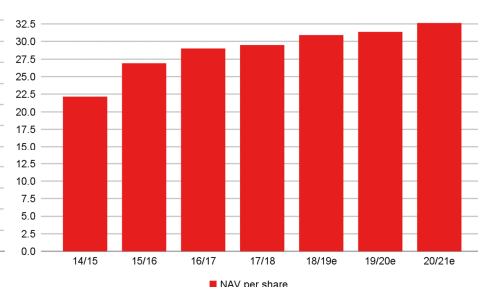
	2014/15	2015/16	2016/17	2017/18	2018/19e	2019/20e	2020/21e
<b>Efficiency of Capital Employment</b>							
ROA	9.7 %	14.9 %	28.3 %	7.9 %	11.5 %	6.9 %	9.0 %
<b>Return on Capital</b>							
NAV per share	22.16	26.91	29.01	29.50	30.91	31.37	32.64
Return on NAV	9.9 %	27.2 %	12.8 %	6.8 %	10.2 %	6.7 %	9.3 %
ROCE (NOPAT)	9.4 %	16.4 %	26.8 %	8.9 %	11.0 %	6.9 %	9.0 %
ROE	8.9 %	14.7 %	20.3 %	6.7 %	9.7 %	6.3 %	8.7 %
Adj. ROE	8.9 %	14.7 %	20.3 %	6.7 %	9.7 %	6.3 %	8.7 %
<b>Balance sheet quality</b>							
Net Debt	-20	-42	-150	-51	-58	-25	-4
Net Financial Debt	-28	-57	-162	-64	-71	-38	-18
Net Gearing	-6.4 %	-11.3 %	-34.4 %	-11.6 %	-12.5 %	-5.3 %	-0.8 %
Net Fin. Debt / EBITDA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Book Value / Share	22.2	26.9	29.0	29.5	30.9	31.4	32.6
Book value per share ex intangibles	22.1	26.8	29.0	29.5	30.9	31.3	32.6

### Return on NAV Development



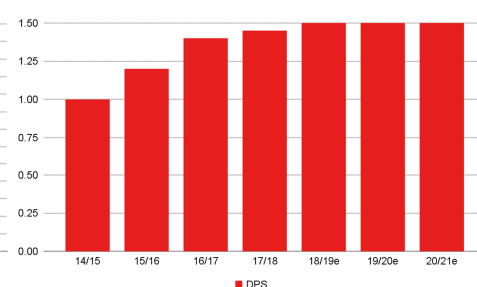
Source: Warburg Research

### NAV per share Development in EUR m



Source: Warburg Research

### Dividend per Share in EUR



Source: Warburg Research

## Consolidated cash flow statement

In EUR m	2014/15	2015/16	2016/17	2017/18	2018/19e	2019/20e	2020/21e
Net income	27	49	82	30	44	29	42
Depreciation of fixed assets	0	0	0	0	0	0	0
Amortisation of goodwill	0	0	0	0	0	0	0
Amortisation of intangible assets	0	0	0	0	0	0	0
Increase/decrease in long-term provisions	-1	10	-6	1	1	1	1
Other non-cash income and expenses	-19	-59	-76	-21	-30	-35	-40
<b>Cash Flow before NWC change</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>14</b>	<b>-5</b>	<b>2</b>
Increase / decrease in inventory	0	0	0	0	0	0	0
Increase / decrease in accounts receivable	0	0	0	0	0	0	0
Increase / decrease in accounts payable	0	0	0	0	0	0	0
Increase / decrease in other working capital positions	0	0	0	0	0	0	0
Increase / decrease in working capital (total)	0	0	0	0	0	0	0
<b>Net cash provided by operating activities [1]</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>14</b>	<b>-5</b>	<b>2</b>
Investments in intangible assets	0	0	0	0	0	0	0
Investments in property, plant and equipment	-1	-1	-1	-1	-1	-1	-1
Payments for acquisitions	0	0	0	0	0	0	0
Financial investments	93	51	104	123	90	95	100
Income from asset disposals	114	56	199	30	106	90	100
<b>Net cash provided by investing activities [2]</b>	<b>20</b>	<b>4</b>	<b>95</b>	<b>-93</b>	<b>15</b>	<b>-5</b>	<b>0</b>
Change in financial liabilities	0	0	0	0	0	0	0
Dividends paid	-27	-14	-18	-21	-23	-23	-23
Purchase of own shares	0	0	0	0	0	0	0
Capital measures	0	37	0	0	0	0	0
Other	0	0	0	0	0	0	0
<b>Net cash provided by financing activities [3]</b>	<b>-27</b>	<b>24</b>	<b>-18</b>	<b>-21</b>	<b>-23</b>	<b>-23</b>	<b>-23</b>
<b>Change in liquid funds [1]+[2]+[3]</b>	<b>0</b>	<b>28</b>	<b>77</b>	<b>-104</b>	<b>7</b>	<b>-33</b>	<b>-20</b>
Effects of exchange-rate changes on cash	0	0	0	0	0	0	0
<b>Cash and cash equivalent at end of period</b>	<b>28</b>	<b>57</b>	<b>128</b>	<b>24</b>	<b>31</b>	<b>-2</b>	<b>-22</b>

## Financial Ratios

	2014/15	2015/16	2016/17	2017/18	2018/19e	2019/20e	2020/21e
<b>Cash Flow</b>							
FCF	6	-1	-1	10	14	-5	2
Interest Received / Avg. Cash	1.6 %	0.2 %	0.1 %	0.3 %	0.9 %	1.1 %	2.1 %
Interest Paid / Avg. Debt	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

## 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 (WPHG), 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 Value Potential, NAV, 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 GmbH 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)
Deutsche Beteiligungs AG	3, 5, 6	<a href="http://www.mmwarburg.com/disclaimer/disclaimer_en/DE000A1TNUT7.htm">http://www.mmwarburg.com/disclaimer/disclaimer_en/DE000A1TNUT7.htm</a>



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

## WARBURG RESEARCH GMBH – ANALYSED RESEARCH UNIVERSE BY RATING

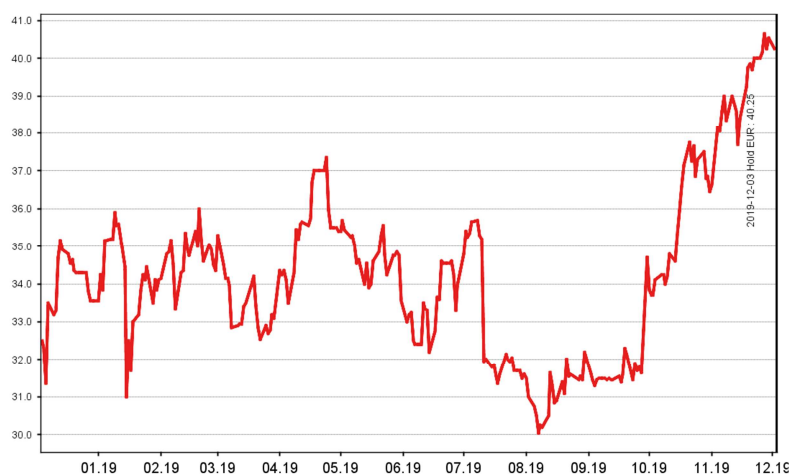
Rating	Number of stocks	% of Universe
Buy	118	58
Hold	74	37
Sell	6	3
Rating suspended	4	2
<b>Total</b>	<b>202</b>	<b>100</b>

## 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	33	77
Hold	8	19
Sell	0	0
Rating suspended	2	5
<b>Total</b>	<b>43</b>	<b>100</b>

## PRICE AND RATING HISTORY DEUTSCHE BETEILIGUNGS AG AS OF 03.12.2019



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

**Matthias Rode** +49 40 3282-2678  
Head of Equities mrode@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

**Jan Bauer** +49 40 309537-155  
Renewables jbauer@warburg-research.com

**Jonas Blum** +49 40 309537-240  
Telco, Construction jblum@warburg-research.com

**Christian Cohrs** +49 40 309537-175  
Industrials & Transportation 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  
Financial Services mfuhrberg@warburg-research.com

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

**Philipp Kaiser** +49 40 309537-260  
Real Estate pkaiser@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

**Franz Schall** +49 40 309537-230  
Automobiles, Car Suppliers fschall@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

**Cansu Tatar** +49 40 309537-248  
Cap. Goods, Engineering ctatar@warburg-research.com

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

**Robert-Jan van der Horst** +49 40 309537-290  
Technology rvanderhorst@warburg-research.com

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

## INSTITUTIONAL EQUITY SALES

**Marc Niemann** +49 40 3282-2660  
Head of Equity Sales, Germany mniemann@mmwarburg.com

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

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

**Lyubka Bogdanova** +49 69 5050-7411  
Ireland, Poland, Australia lbogdanova@mmwarburg.com

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

**Alexander Eschweiler** +49 40 3282-2669  
Germany aeschweiler@mmwarburg.com

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

**Tobias Hald** +49 40 3282-2695  
United Kingdom thald@mmwarburg.com

**Christopher Seedorf** +49 69 5050-7414  
Switzerland cseedorf@mmwarburg.com

**Sophie Hauer** +49 69 5050-7417  
Roadshow/Marketing shauer@mmwarburg.com

**Juliane Niemann** +49 40 3282-2694  
Roadshow/Marketing jniemann@mmwarburg.com

## SALES TRADING

**Oliver Merckel** +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