

Buy EUR 69.00 Price EUR 20.30 Upside 239.9 %	Value Indicators: EUR SoTP: 69.00	Warburg ESG Risk Score: 2.4 ESG Score (MSCI based): 3.0 Balance Sheet Score: 3.3 Market Liquidity Score: 1.0	Description: Brockhaus invests into high tech German Mittelstand companies
	Market Snapshot: EUR m Market cap: 222.2 No. of shares (m): 10.9 EV: 325.6 Freefloat MC: 172.4 Ø Trad. Vol. (30d): 28.00 th	Shareholders: Freefloat 77.60 % Kayne Anderson Rudnick Inv. 10.00 % DWS Investment 7.20 % Marco Brockhaus 22.40 %	Key Figures (WRe): 2023e Beta: 1.7 Price / Book: 0.7 x Equity Ratio: 49 %

Operational growth still strong; Refinancing mix weakens cash generation in H1

Brockhaus Q2 23 review

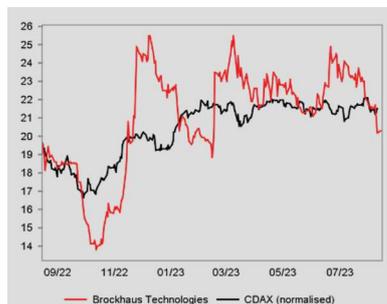
(EURm) pro forma	Q2 23 A	WRe est	delta	Q2 22 A	YOY	Q1 23 A	QOQ	H1 23 A	H1 22 A	yoy
Revenues	50,7	53,2	-4,8%	41,3	23%	33,4	52%	84,1	65,1	29,2%
t/o IHSE	9,4	9,2	2%	7,7	22%	8,3	13%	17,7	14,9	19%
t/o Bikeleasing	41,2	44,0	-6%	33,7	22%	25,1	64%	66,4	52,1	27%
Adj EBITDA	19,3	21,6	-10,6%	17,5	10%	9,6	101%	28,8	23,2	24%
margin	38,1%	40,6%		42,3%		28,8%		34,2%	35,6%	
t/o IHSE	1,9	2,0	-5%	0,9	111%	1,6	19%	3,5	3,0	18%
t/o Bikeleasing	18,6	21,1	-12%	17,8	4%	9,4	98%	27,9	22,7	23%

The operational growth of Bikeleasing continues apace. In H1, around 6,000 additional companies with 400k employees were added to the platform and around 80k bikes were facilitated, which is a growth rate of 31%. On the release of preliminary figures, we assumed that refinancing changes by Bikeleasing caused the deviation to our forecast. Keep in mind, if Bikeleasing refinances by forfeiting the lease receivables, this is a sale of a leased asset under IFRS with the net present value of receivables less refinancing booked as sales and profit.

In Q2, the refinancing backlog, which is defined as the number of contracts not forfeited or similarly refinanced, stood close to EUR 28m. The balance sheet also outlines the issue, as there was a more than EUR 30m-swing since year-end in lease liabilities less lease receivables, showing that Bikeleasing used cash at hand to finance lease contracts. Consequently, sales, adj. EBITDA and surely cash generation reported by Bikeleasing were probably burdened by the refinancing mix seen in Q2. By the beginning of August, the refinancing backlog was reduced to EUR 13.5m, implying strong cash generation and the likelihood of higher adj. EBITDA and sales in Q3 23 (all else being equal).

Furthermore, Bikeleasing acquired two of its sales agencies, paying EUR 8.5m. From the pro forma EBITDA contribution of EUR 0.7m for H1 23, we estimate that the paid EBITDA multiple is at 4x or even lower. Group operating cash flow moved from EUR 12.6m in H1 22 to EUR -4m in H1 23. Including the acquisitions, FCF stood at EUR -3m for the six-month period 2023.

Brockhaus reiterated the guidance for FY 23 and FY 25. We understand that the basis for future growth of the group as it is now is the expansion of the Bikeleasing network which continues at a run rate of around 30%, translating into growth of leased bikes at around the same rate. Note that this is against the backdrop of a difficult consumer environment. Changes in refinancing can generate a significant impact on a quarterly basis as seen in Q1 22 as well but tend to level out over the full year. We therefore make no changes to our FY 23 revenue and profit forecast at this point as network expansion and leased bikes are in line with our assumptions. We are aware that our estimates are ahead of the company's guidance, but we view them as being in line with the operational growth rate of the business. Hence, we reiterate our Buy recommendation for the stock and our PT of EUR 69.



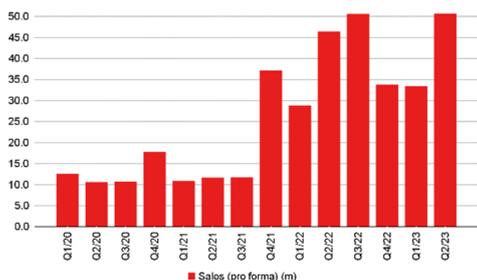
Rel. Performance vs CDAX:	
1 month:	-12.3 %
6 months:	5.9 %
Year to date:	-20.8 %
Trailing 12 months:	-6.5 %

Company events:	

FY End: 31.12. in EUR m	CAGR (22-25e)	2019	2020	2021	2022	2023e	2024e	2025e
Sales (pro forma) yoy	28.0 %	54.3	51.6	126.5	145.3	197.2	246.4	305.0
Sales	28.8 %	n.a.	-5.0 %	145.3 %	14.9 %	35.7 %	24.9 %	23.8 %
Change Sales yoy		1408.3 %	211.5 %	16.9 %	136.6 %	38.2 %	24.9 %	23.8 %
EBITDA (pro forma) Margin (pro forma)	32.7 %	16.2	12.3	48.2	50.0	69.7	95.3	116.9
EBITDA	35.7 %	29.8 %	23.8 %	38.1 %	34.4 %	35.3 %	38.7 %	38.3 %
Margin		1.3	8.3	0.4	46.7	69.4	95.0	116.9
EBIT		7.7 %	16.2 %	0.7 %	32.7 %	35.2 %	38.6 %	38.3 %
EBIT Margin	49.1 %	-2.3	-1.0	-9.3	29.3	51.7	76.3	97.1
Net income	-10.7 %	-13.7 %	-2.0 %	-15.4 %	20.5 %	26.2 %	31.0 %	31.8 %
EPS		-3.8	-6.8	-15.9	49.0	21.9	34.6	34.9
FCFPS	-10.7 %	-1.32	-0.81	-1.52	4.48	2.00	3.16	3.19
FCF / Market cap		1.47	0.57	-0.71	2.90	4.60	5.11	5.31
EV / Sales		n.a.	1.8 %	-2.9 %	15.4 %	22.6 %	25.2 %	26.2 %
EV / EBITDA		n.a.	3.6 x	6.0 x	1.6 x	1.7 x	1.1 x	0.7 x
EV / EBIT		n.a.	22.4 x	859.3 x	5.0 x	4.7 x	2.8 x	1.7 x
P / E		n.a.	n.a.	n.a.	8.0 x	6.3 x	3.4 x	2.1 x
FCF Potential Yield		n.a.	n.a.	n.a.	4.2 x	10.2 x	6.4 x	6.4 x
Net Debt		n.a.	2.8 %	-1.1 %	35.5 %	19.3 %	30.7 %	42.3 %
ROCE (NOPAT)		44.2	-69.3	110.6	28.1	-40.6	-104.8	-163.0
Guidance:		n.a.	n.a.	n.a.	4.5 %	11.3 %	17.6 %	22.6 %

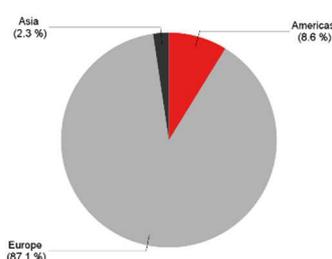
Pro forma sales of EUR 165-175m and adj. EBITDA margin of 35%

Sales (pro forma) development
in EUR m



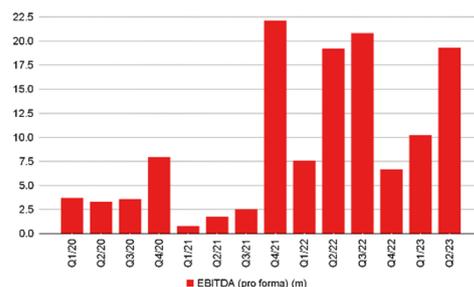
Source: Warburg Research

Sales by regions
2022; in %



Source: Warburg Research

adj. EBITDA (pro forma) development
in EUR m



Source: Warburg Research

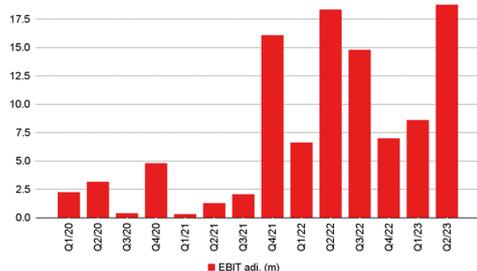
Company Background

- Founded in 2017 by CEO Marco Brockhaus and other team members as the successor to three private equity funds.
- In contrast to the limited lifetime of a PE fund, the structure of a holding company precludes forced exits and management influence is increased.
- IPO in 2020
- Portfolio companies are managed by a lean holding with around 10 employees

Competitive Quality

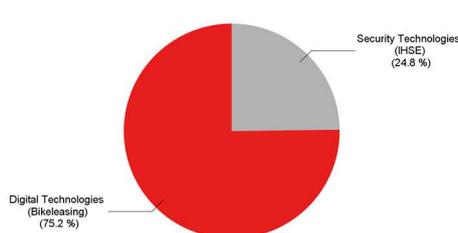
- Brockhaus has an extensive network and over 20 years of expertise in PE transactions to support portfolio companies to grow and expand into new markets
- Focus of investment is scalable B2B business models in high-tech German Mittelstand companies that generate high margins and superior cash returns
- Typically, the companies invested in are not large enough to go to the capital market alone but are champions in their niches
- Brockhaus' investments represent a niche that asset managers have little or no access to.

adj. EBIT development
in EUR m



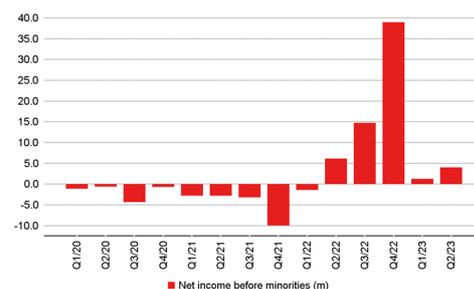
Source: Warburg Research

Sales by segments
2022; in %



Source: Warburg Research

Net income development
in EUR m



Source: Warburg Research

Sum of the parts

(EURm)	2023	WACC -1%	WACC +1%
Equity value IHSE (DCF)	103	126	85
Share Brockhaus	100%	100%	100%
	103	126	85
Equity value Bikeleasing (DCF)	1.382	1.450	1.321
Share Brockhaus	52%	52%	52%
	722	757	690
FY 23e adj. EBITDA Holding	-7	-7	-7
Discount factor	6%	5%	7%
Value holding	-121	-148	-102
Sum of the Parts	704	736	674
Less net debt (-cash) holding	-52	-52	-52
Equity value Brockhaus Technologies	756	788	726
Number of shares	10,95	10,95	10,95
Value per share	69,09	71,95	66,31

- IHSE and Bikeleasing valued by separate DCF models
- Debt at portfolio company level is included in DCF model. Remaining debt at holding level is subtracted separately.
- Holding cost are discounted in a single stage model with same WACC as portfolio companies.
- Holding cost are expected to be subject to inflation of 4.5% p.a. subtracted from the discount rate.
- Deal generating capability of holding is a hidden reserve and not valued currently

Valuation	2019	2020	2021	2022	2023e	2024e	2025e
Price / Book	n.a.	1.1 x	1.1 x	0.8 x	0.7 x	0.7 x	0.6 x
Book value per share ex intangibles	-41.67	6.81	-16.15	-7.70	-4.31	0.00	3.86
EV / Sales	n.a.	3.6 x	6.0 x	1.6 x	1.7 x	1.1 x	0.7 x
EV / EBITDA	n.a.	22.4 x	859.3 x	5.0 x	4.7 x	2.8 x	1.7 x
EV / EBIT	n.a.	n.a.	n.a.	8.0 x	6.3 x	3.4 x	2.1 x
EV / EBIT adj.*	n.a.	17.6 x	18.3 x	5.0 x	4.9 x	2.9 x	1.8 x
P / FCF	n.a.	54.1 x	n.a.	6.5 x	4.4 x	4.0 x	3.8 x
P / E	n.a.	n.a.	n.a.	4.2 x	10.2 x	6.4 x	6.4 x
P / E adj.*	n.a.	57.9 x	52.2 x	25.9 x	9.3 x	6.1 x	4.9 x
Dividend Yield	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
FCF Potential Yield (on market EV)	n.a.	2.8 %	-1.1 %	35.5 %	19.3 %	30.7 %	42.3 %

*Adjustments made for: -

Company Specific Items	2019	2020	2021	2022	2023e	2024e	2025e
Sales (pro forma)	54.3	51.6	126.5	145.3	197.2	246.4	305.0
yoy	n.a.	-5.0 %	145.3 %	14.9 %	35.7 %	24.9 %	23.8 %
EBITDA (pro forma)	16.2	12.3	48.2	50.0	69.7	95.3	116.9
Margin (pro forma)	29.8 %	23.8 %	38.1 %	34.4 %	35.3 %	38.7 %	38.3 %

Consolidated profit & loss

In EUR m	2019	2020	2021	2022	2023e	2024e	2025e
Sales	16.6	51.6	60.3	142.7	197.2	246.4	305.0
Change Sales yoy	1408.3 %	211.5 %	16.9 %	136.6 %	38.2 %	24.9 %	23.8 %
Increase / decrease in inventory	0.2	-0.1	-0.2	-0.2	0.0	0.0	0.0
Own work capitalised	0.8	0.9	1.4	1.0	0.0	0.0	0.0
Total Sales	17.5	52.3	61.5	143.5	197.2	246.4	305.0
Material expenses	4.3	13.8	14.2	51.7	71.0	86.2	106.7
Gross profit	13.2	38.6	47.3	91.7	126.2	160.1	198.2
<i>Gross profit margin</i>	<i>80.0 %</i>	<i>74.7 %</i>	<i>78.4 %</i>	<i>64.3 %</i>	<i>64.0 %</i>	<i>65.0 %</i>	<i>65.0 %</i>
Personnel expenses	6.8	19.5	21.8	26.6	37.5	46.8	57.9
Other operating income	0.4	1.5	2.0	1.5	10.3	10.8	3.0
Other operating expenses	5.6	12.0	26.9	19.5	29.6	29.1	26.5
Unfrequent items	0.0	-0.1	-0.2	-0.3	0.0	0.0	0.0
EBITDA	1.3	8.3	0.4	46.7	69.4	95.0	116.9
<i>Margin</i>	<i>7.7 %</i>	<i>16.2 %</i>	<i>0.7 %</i>	<i>32.7 %</i>	<i>35.2 %</i>	<i>38.6 %</i>	<i>38.3 %</i>
Depreciation of fixed assets	0.8	1.7	2.1	3.2	3.6	4.4	5.5
EBITA	0.4	6.7	-1.7	43.5	65.9	90.5	111.4
Amortisation of intangible assets	2.7	7.7	7.6	14.2	14.2	14.2	14.3
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBIT	-2.3	-1.0	-9.3	29.3	51.7	76.3	97.1
<i>Margin</i>	<i>-13.7 %</i>	<i>-2.0 %</i>	<i>-15.4 %</i>	<i>20.5 %</i>	<i>26.2 %</i>	<i>31.0 %</i>	<i>31.8 %</i>
EBIT adj.	1.9	10.6	19.7	46.8	66.0	90.6	111.1
Interest income	0.1	0.1	0.0	4.8	1.2	1.2	1.2
Interest expenses	1.2	3.9	6.2	14.7	10.4	7.0	7.0
Other financial income (loss)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBT	-3.4	-4.8	-15.4	19.3	42.5	70.5	91.3
<i>Margin</i>	<i>-20.5 %</i>	<i>-9.4 %</i>	<i>-25.5 %</i>	<i>13.5 %</i>	<i>21.6 %</i>	<i>28.6 %</i>	<i>29.9 %</i>
Total taxes	0.4	1.9	3.4	8.9	11.9	19.7	25.6
Net income from continuing operations	-3.8	-6.8	-18.8	10.5	30.6	50.8	65.7
Income from discontinued operations (net of tax)	0.0	0.0	0.0	48.0	8.3	8.3	0.0
Net income before minorities	-3.8	-6.8	-18.8	58.5	38.9	59.1	65.7
Minority interest	0.0	0.0	-2.9	9.4	17.0	24.5	30.8
Net income	-3.8	-6.8	-15.9	49.0	21.9	34.6	34.9
<i>Margin</i>	<i>-23.1 %</i>	<i>-13.1 %</i>	<i>-26.3 %</i>	<i>34.3 %</i>	<i>11.1 %</i>	<i>14.0 %</i>	<i>11.4 %</i>
Number of shares, average	2.9	8.3	10.4	10.9	10.9	10.9	10.9
EPS	-1.32	-0.81	-1.52	4.48	2.00	3.16	3.19
EPS adj.	-0.01	0.53	0.46	0.73	2.19	3.35	4.11

*Adjustments made for:

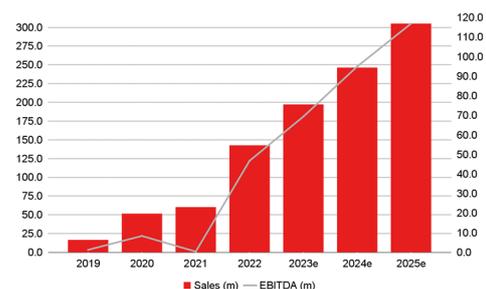
Guidance: Pro forma sales of EUR 165-175m and adj. EBITDA margin of 35%

Financial Ratios

	2019	2020	2021	2022	2023e	2024e	2025e
Total Operating Costs / Sales	98.2 %	85.0 %	101.0 %	67.6 %	64.8 %	61.4 %	61.7 %
Operating Leverage	0.0 x	-0.3 x	46.5 x	n.a.	2.0 x	1.9 x	1.1 x
EBITDA / Interest expenses	1.1 x	2.1 x	0.1 x	3.2 x	6.7 x	13.6 x	16.7 x
Tax rate (EBT)	-12.9 %	-39.7 %	-22.0 %	45.8 %	28.0 %	28.0 %	28.0 %
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

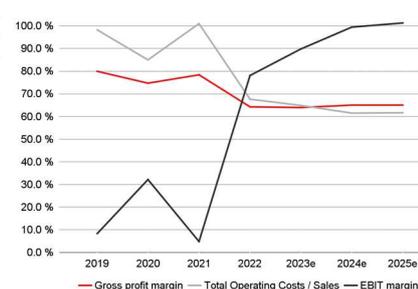
in EUR m



Source: Warburg Research

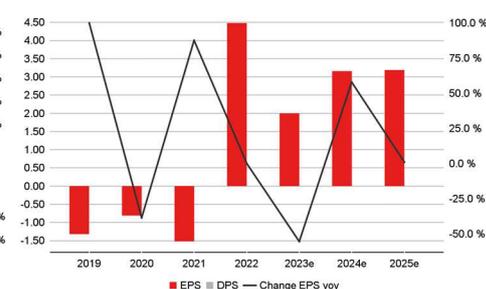
Operating Performance

in %



Source: Warburg Research

Performance per Share



Source: Warburg Research

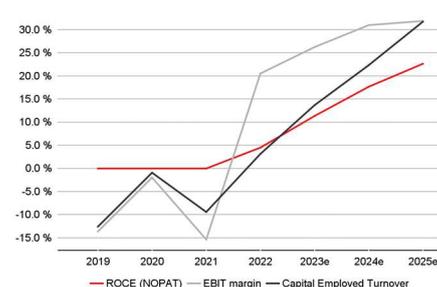
Consolidated balance sheet

In EUR m	2019	2020	2021	2022	2023e	2024e	2025e
Assets							
Goodwill and other intangible assets	160.6	152.7	398.9	356.9	343.6	329.3	315.0
thereof other intangible assets	0.0	53.7	147.7	133.5	119.3	105.1	90.8
thereof Goodwill	91.4	91.4	243.6	221.9	221.9	221.9	221.9
Property, plant and equipment	11.3	11.7	16.2	7.6	7.9	7.9	9.5
Financial assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other long-term assets	1.0	0.6	82.7	131.4	185.2	246.5	320.6
Fixed assets	172.9	165.0	497.7	496.0	536.7	583.7	645.1
Inventories	10.7	9.7	12.6	10.9	15.2	19.0	23.5
Accounts receivable	5.9	7.2	20.2	29.4	25.4	31.7	39.3
Liquid assets	17.2	123.5	30.3	70.8	99.5	138.7	171.9
Other short-term assets	1.1	0.9	53.7	48.4	53.8	56.2	49.5
Current assets	34.8	141.4	116.8	159.5	193.8	245.6	284.2
Total Assets	207.7	306.4	614.5	655.5	730.5	829.3	929.3
Liabilities and shareholders' equity							
Subscribed capital	6.6	10.4	10.4	10.9	10.9	10.9	10.9
Capital reserve	118.7	227.7	227.7	240.1	240.1	240.1	240.1
Retained earnings	0.0	0.0	0.0	0.0	21.9	56.5	91.4
Other equity components	-6.5	-14.6	-16.0	21.6	23.4	21.7	14.8
Shareholders' equity	118.9	223.4	222.0	272.7	296.4	329.3	357.3
Minority interest	0.0	0.0	32.9	42.6	59.6	84.1	114.9
Total equity	118.9	223.4	254.9	315.3	356.0	413.4	472.2
Provisions	0.6	2.2	4.9	0.2	0.2	0.2	0.2
thereof provisions for pensions and similar obligations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial liabilities (total)	61.3	54.3	140.9	98.9	58.9	33.9	8.9
Short-term financial liabilities	5.4	6.1	17.0	5.3	-4.7	-4.7	-4.7
Accounts payable	3.1	2.5	12.7	15.5	25.4	31.8	39.3
Other liabilities	23.8	24.0	201.0	225.7	290.0	350.0	408.7
Liabilities	88.8	83.0	359.6	340.2	374.5	415.9	457.1
Total liabilities and shareholders' equity	207.7	306.4	614.5	655.5	730.5	829.3	929.3

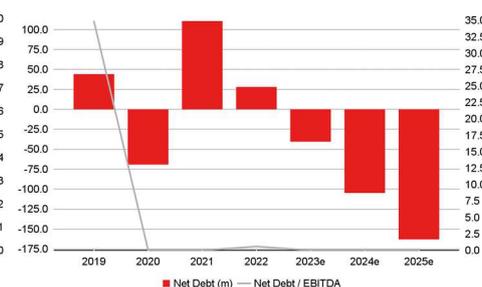
Financial Ratios

	2019	2020	2021	2022	2023e	2024e	2025e
Efficiency of Capital Employment							
Operating Assets Turnover	0.7 x	2.0 x	1.7 x	4.4 x	8.5 x	9.2 x	9.3 x
Capital Employed Turnover	0.1 x	0.3 x	0.2 x	0.4 x	0.6 x	0.8 x	1.0 x
ROA	-2.2 %	-4.1 %	-3.2 %	9.9 %	4.1 %	5.9 %	5.4 %
Return on Capital							
ROCE (NOPAT)	n.a.	n.a.	n.a.	4.5 %	11.3 %	17.6 %	22.6 %
ROE	-4.6 %	-3.9 %	-7.1 %	19.8 %	7.7 %	11.0 %	10.2 %
Adj. ROE	0.0 %	2.6 %	2.1 %	3.3 %	8.4 %	11.7 %	13.1 %
Balance sheet quality							
Net Debt	44.2	-69.3	110.6	28.1	-40.6	-104.8	-163.0
Net Financial Debt	44.2	-69.3	110.6	28.1	-40.6	-104.8	-163.0
Net Gearing	37.1 %	-31.0 %	43.4 %	8.9 %	-11.4 %	-25.4 %	-34.5 %
Net Fin. Debt / EBITDA	3482.1 %	n.a.	n.a.	60.1 %	n.a.	n.a.	n.a.
Book Value / Share	118.9	21.5	20.3	24.9	27.1	30.1	32.6
Book value per share ex intangibles	-41.7	6.8	-16.2	-7.7	-4.3	0.0	3.9

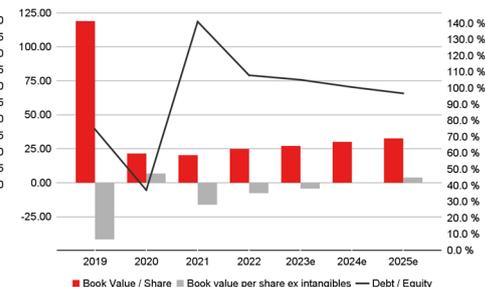
ROCE Development



Net debt in EUR m



Book Value per Share in EUR



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

Consolidated cash flow statement

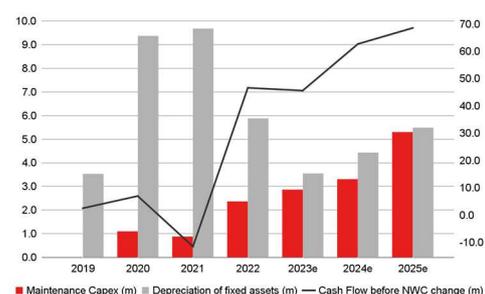
In EUR m	2019	2020	2021	2022	2023e	2024e	2025e
Net income	-3.8	-6.8	-18.8	58.5	38.9	59.1	65.7
Depreciation of fixed assets	3.5	9.4	9.7	5.9	3.6	4.4	5.5
Amortisation of goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amortisation of intangible assets	2.7	7.7	7.6	14.2	14.2	14.2	14.3
Increase/decrease in long-term provisions	0.1	0.0	-0.1	0.0	0.0	0.0	0.0
Other non-cash income and expenses	0.0	-3.4	-9.9	-31.9	-11.0	-15.0	-17.0
Cash Flow before NWC change	2.6	7.0	-11.5	46.6	45.7	62.7	68.5
Increase / decrease in inventory	0.5	-1.1	-2.3	-16.1	-4.3	-3.8	-4.5
Increase / decrease in accounts receivable	0.0	0.0	0.0	0.0	4.0	-6.3	-7.6
Increase / decrease in accounts payable	1.2	-0.2	7.6	4.6	9.9	6.4	7.5
Increase / decrease in other working capital positions	0.0	0.0	0.0	-0.2	-1.2	1.3	1.3
Increase / decrease in working capital (total)	1.7	-1.3	5.3	-11.7	8.5	-2.4	-3.3
Net cash provided by operating activities [1]	4.3	5.7	-6.2	34.9	54.1	60.3	65.2
Investments in intangible assets	0.0	-0.1	0.0	0.0	0.0	0.0	0.0
Investments in property, plant and equipment	0.0	-1.0	-1.2	-1.3	-3.8	-4.4	-7.1
Payments for acquisitions	0.0	-0.1	-142.1	0.0	0.0	0.0	0.0
Financial investments	0.0	-0.4	-0.8	0.0	0.0	0.0	0.0
Income from asset disposals	0.1	0.0	0.1	56.2	18.4	8.4	0.0
Net cash provided by investing activities [2]	0.1	-1.4	-144.0	53.0	14.5	3.9	-7.1
Change in financial liabilities	17.2	0.0	58.0	-42.4	-40.0	-25.0	-25.0
Dividends paid	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Purchase of own shares	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital measures	56.5	112.7	0.0	0.0	0.0	0.0	0.0
Other	-2.2	-10.4	-2.4	-4.3	0.0	0.0	0.0
Net cash provided by financing activities [3]	71.5	102.3	55.7	-46.7	-40.0	-25.0	-25.0
Change in liquid funds [1]+[2]+[3]	75.9	106.6	-94.5	41.2	28.7	39.3	33.1
Effects of exchange-rate changes on cash	0.0	0.2	0.3	0.2	0.0	0.0	0.0
Cash and cash equivalent at end of period	107.5	124.0	29.3	71.8	99.5	138.7	171.9

Financial Ratios

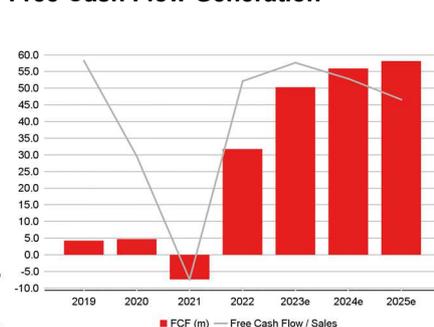
	2019	2020	2021	2022	2023e	2024e	2025e
Cash Flow							
FCF	4.3	4.7	-7.4	31.8	50.3	55.9	58.1
Free Cash Flow / Sales	25.8 %	9.2 %	-12.2 %	22.3 %	25.5 %	22.7 %	19.1 %
Free Cash Flow Potential	0.8	5.3	-3.8	83.5	62.9	80.2	86.0
Free Cash Flow / Net Profit	-111.6 %	-70.0 %	46.5 %	64.8 %	229.5 %	161.8 %	166.5 %
Interest Received / Avg. Cash	0.2 %	0.1 %	0.1 %	9.5 %	1.4 %	1.0 %	0.8 %
Interest Paid / Avg. Debt	3.0 %	6.7 %	6.3 %	12.3 %	13.1 %	15.1 %	32.7 %
Management of Funds							
Investment ratio	0.0 %	2.0 %	1.9 %	0.9 %	1.9 %	1.8 %	2.3 %
Maint. Capex / Sales	0.0 %	2.1 %	1.5 %	1.7 %	1.5 %	1.3 %	1.7 %
Capex / Dep	0.0 %	11.2 %	12.1 %	7.2 %	21.5 %	23.6 %	35.7 %
Avg. Working Capital / Sales	49.1 %	27.0 %	28.5 %	15.7 %	10.2 %	6.9 %	7.0 %
Trade Debtors / Trade Creditors	188.4 %	284.5 %	158.4 %	190.1 %	100.0 %	99.7 %	100.0 %
Inventory Turnover	0.4 x	1.4 x	1.1 x	4.7 x	4.7 x	4.5 x	4.5 x
Receivables collection period (days)	129	51	122	75	47	47	47
Payables payment period (days)	264	67	326	109	131	135	134
Cash conversion cycle (Days)	772	241	118	43	-5	-7	-7

CAPEX and Cash Flow

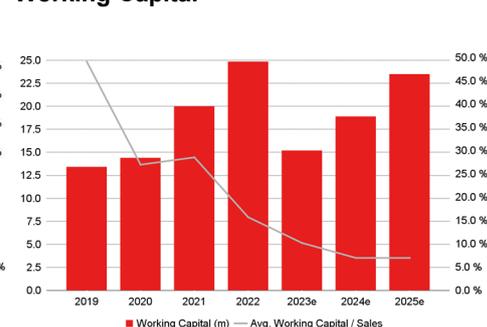
in EUR m



Free Cash Flow Generation



Working Capital



Source: Warburg Research

Source: Warburg Research

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. The views expressed in this research report accurately reflect the research analyst's personal views about the subject securities and issuers. Unless otherwise specified in the research report, no part of the research analyst's compensation was, is, or will be directly or indirectly related to the specific recommendations or views contained in the research report. 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.

The **Warburg ESG Risk Score** is based on information © 2020 MSCI ESG Research LLC. Reproduced by permission. Although Warburg Research's information providers, including without limitation, MSCI ESG Research LLC and its affiliates (the "ESG Parties"), obtain information (the "Information") from sources they consider reliable, none of the ESG Parties warrants or guarantees the originality, accuracy and/or completeness, of any data herein and expressly disclaim all express or implied warranties, including those of merchantability and fitness for a particular purpose. The Information may only be used for your internal use, may not be reproduced or disseminated in any form and may not be used as a basis for, or a component, of any financial instruments or products indices. Further, none of the Information can in and of itself be used to determine which securities to buy or sell or when to buy or sell them. None of the ESG Parties shall have any liability for any errors or omissions in connection with any data herein, or any liability for any direct, indirect, special, punitive, consequential or any other damage (including lost profits) even if notified of the possibility.

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 by CIC.
3. CIC (Crédit Industriel et Commercial) and M.M. Warburg & CO have concluded a Research Distribution Agreement that gives CIC Market Solutions exclusive distribution in France, the US and Canada of the Warburg Research GmbH research product.
4. The research reports are distributed in the United States of America by CIC ("CIC") pursuant to a SEC Rule 15a-6 agreement with CIC Market Solutions Inc ("CICI"), a U.S. registered broker-dealer and a related company of CIC, and are distributed solely to persons who qualify as "Major U.S. Institutional Investors" as defined in SEC Rule 15a-6 under the Securities Exchange Act of 1934.
5. Any person who is not a Major U.S. Institutional Investor must not rely on this communication. The delivery of this research report to any person in the United States of America is not a recommendation to effect any transactions in the securities discussed herein, or an endorsement of any opinion expressed herein.

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.
- 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)
Brockhaus Technologies	3, 5	https://www.mmwarburg.com/disclaimer/disclaimer_en/DE000A2GSU42.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	152	73
Hold	44	21
Sell	7	3
Rating suspended	4	2
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	42	86
Hold	5	10
Sell	0	0
Rating suspended	2	4
Total	49	100

PRICE AND RATING HISTORY BROCKHAUS TECHNOLOGIES AS OF 15.08.2023



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

Stefan Augustin +49 40 309537-168
Cap. Goods, Engineering saugustin@warburg-research.com

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

Christian Cohrs +49 40 309537-175
Industrials & Transportation ccohrs@warburg-research.com

Dr. Christian Ehmann +49 40 309537-167
BioTech, Life Science cehmann@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

Fabio Hölscher +49 40 309537-240
Automobiles, Car Suppliers fhoelscher@warburg-research.com

Philipp Kaiser +49 40 309537-260
Real Estate, Construction pkaiser@warburg-research.com

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

Hannes Müller +49 40 309537-255
Software, IT hmueller@warburg-research.com

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

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

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

Simon Stippig +49 40 309537-265
Real Estate, Telco sstippig@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

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

Lea Bogdanova +49 69 5050-7411
United Kingdom, Ireland lbogdanova@mmwarburg.com

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

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

Maximilian Martin +49 69 5050-7413
Austria, Poland mmartin@mmwarburg.com

Rudolf Alexander Michaelis +49 40 3282-2649
Germany rmichaelis@mmwarburg.com

Roman Alexander Niklas +49 69 5050-7412
Switzerland rniklas@mmwarburg.com

Charlotte Wernicke +49 40 3282-2669
Roadshow/Marketing cwernicke@mmwarburg.com

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

SALES TRADING

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

Rico Müller +49 40 3282-2685
Sales Trading rmueller@mmwarburg.com

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

DESIGNATED SPONSORING

Marcel Magiera +49 40 3282-2662
Designated Sponsoring mmagiera@mmwarburg.com

Sebastian Schulz +49 40 3282-2631
Designated Sponsoring sschulz@mmwarburg.com

Jörg Treptow +49 40 3282-2658
Designated Sponsoring jtreptow@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 RESP MMWA GO
FactSet www.factset.com

Refinitiv www.refinitiv.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