

Buy EUR 4.70	Value Indicators: EUR DCF: 4.71 FCF-Value Potential 23e: 4.38	Warburg ESG Risk Score: 2.1 ESG Score (MSCI based): 3.0 Balance Sheet Score: 2.8 Market Liquidity Score: 0.5	Description: Ship owner and maritime investment manager
	Market Snapshot: EUR m Market cap: 134 No. of shares (m): 32 EV: 320 Freefloat MC: 41 Ø Trad. Vol. (30d): 582.53 th	Shareholders: Freefloat 30.2 % Döhle Group 38.2 % Hamburg Commercial Bank 16.1 % JaJo Beteiligungsgesellschaft 9.1 % MS Cordula 6.4 %	Key Figures (WRe): 2021e Beta: 1.4 Price / Book: 1.9 x Equity Ratio: 52 % Net Fin. Debt / EBITDA: 1.3 x Net Debt / EBITDA: 1.3 x
Price EUR 4.14 Upside 13.5 %			

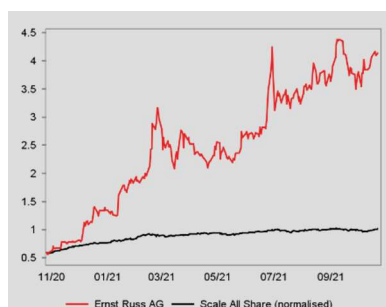
First Glance: Guidance raised on prospective book gains

On Friday evening, Ernst Russ announced the sale of the multipurpose vessel "Lotta Auerbach" effective December 2021. Only a few months ago, the company had taken over the majority (51%) of the vessel, which was built in 2007 and has a capacity of 12,744 dwt.

In the course of the transaction, a book gain of EUR 5.2m will be realised. Consequently, management raised the full-year EBIT outlook to EUR 30-32m (previously: 24-26m). Further details of the vessel sale were not disclosed.

Our view: The announcement of a substantial book gain confirms our earlier assessment that Ernst Russ has considerable hidden reserves on the balance sheet, especially in light of the recent upturn in charter rates and second-hand vessel prices. Looking at the guidance adjustment in greater detail, we note that the revision was made generously and rounded upwards, suggesting that the company is well on track to achieve its underlying earnings targets.

To date, we have no information regarding the use of the divestment proceeds. We will review our model and estimates after the issue of third quarter results. For the time being we are sticking to our Buy recommendation with a DCF-based price target of EUR 4.70

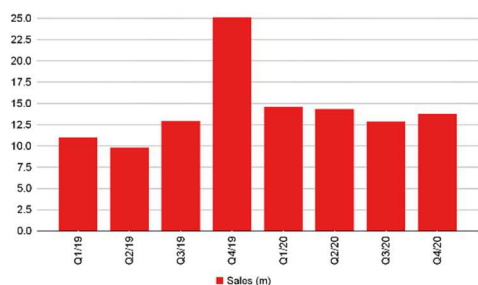


Rel. Performance vs Scale All	
1 month:	8.4 %
6 months:	78.6 %
Year to date:	174.6 %
Trailing 12 months:	516.4 %

Company events:	
10.12.21	Q3

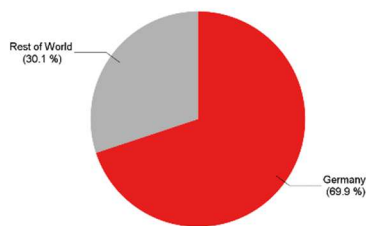
FY End: 31.12. in EUR m	CAGR (20-23e)	2017	2018	2019	2020	2021e	2022e	2023e
Sales	20.3 %	44	53	59	56	89	96	97
Change Sales yoy		n.a.	19.7 %	11.6 %	-5.5 %	60.9 %	7.3 %	0.9 %
EBITDA	45.2 %	12	15	10	13	33	36	38
Margin		28.1 %	27.7 %	16.5 %	22.6 %	36.8 %	37.8 %	39.7 %
EBIT adj.	134.0 %	4	4	4	2	25	28	29
EBIT	87.8 %	6	7	4	4	24	27	29
Margin		12.6 %	12.4 %	6.4 %	7.8 %	26.9 %	28.4 %	29.8 %
Net income	54.3 %	6	6	2	4	12	14	15
EPS	54.3 %	0.17	0.19	0.05	0.13	0.36	0.43	0.47
EPS adj.	54.3 %	0.17	0.19	0.05	0.13	0.36	0.43	0.47
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		-0.12	0.01	-0.05	-0.42	0.65	0.66	0.72
FCF / Market cap		-8.4 %	0.6 %	-6.6 %	-59.1 %	15.8 %	16.0 %	17.3 %
EV / Sales		1.4 x	1.0 x	1.4 x	1.5 x	3.6 x	3.4 x	3.4 x
EV / EBITDA		5.1 x	3.7 x	8.2 x	6.6 x	9.7 x	9.0 x	8.5 x
EV / EBIT		11.3 x	8.1 x	21.2 x	19.1 x	13.3 x	12.0 x	11.3 x
P / E		8.2 x	6.2 x	17.4 x	5.5 x	11.5 x	9.7 x	8.9 x
P / E adj.		8.2 x	6.2 x	17.4 x	5.5 x	11.5 x	9.7 x	8.9 x
FCF Potential Yield		18.5 %	26.3 %	-5.8 %	-8.2 %	7.6 %	7.0 %	7.7 %
Net Debt		10	8	46	53	44	35	26
ROCE (NOPAT)		n.a.	12.0 %	2.1 %	3.1 %	17.5 %	19.3 %	19.7 %
Guidance:		Revenues: EUR 85-90m; EBIT adj.: EUR 30-32m.						

Sales development in EUR m



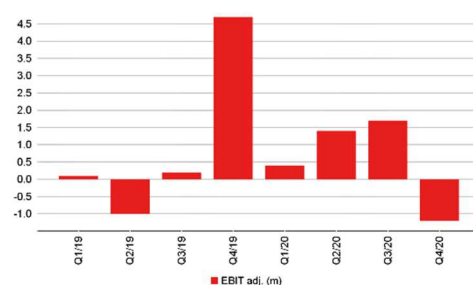
Source: Warburg Research

Sales by regions 2020; in %



Source: Warburg Research

EBIT adj. development in EUR m



Source: Warburg Research

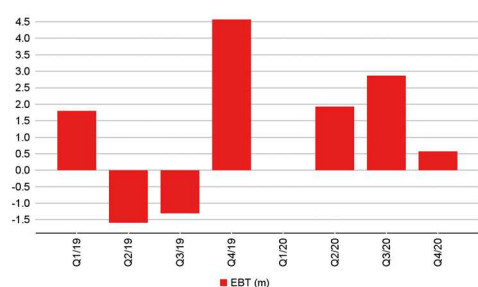
Company Background

- Ernst Russ invests in shipping projects for its own account and on behalf of third parties with the aim of generating stable income from charter proceeds in the long term.
- The scope of services includes the identification and purchase of suitable vessels, structuring of financing, development of a deployment strategy, selection of partners (technical management, crewing) and monitoring.
- The company's fleet currently comprises 18 fully-consolidated vessels and a further 13 with a significant co-investment. In addition, Ernst Russ manages various third-party vessels belonging to single-ship KG funds.
- To a small extent, the company is also still active in the management of closed-end funds on behalf of large trust companies and fund providers.

Competitive Quality

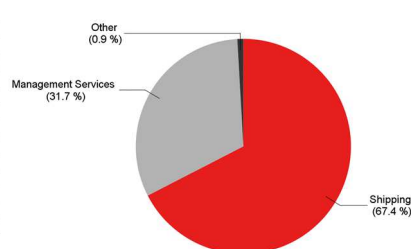
- Charter companies account for >50% of the overall container ship capacity. The supply side is highly fragmented with various small, but no dominant, players. Ernst Russ represents ~0.3% of the charter tonnage.
- Continuous fleet expansion further improves diversification with regards to ship classes, charter periods and economic remaining life of the vessels, resulting in a superior risk profile versus single ship companies.
- Ernst Russ' good financial position and access to the capital market represent a clear competitive advantage over non-listed providers in terms of flexibility and financing costs of the deployed assets.
- Close ties to the Döhle group provide superior expertise and access to lucrative charter deals or vessel transactions.

EBT development in EUR m



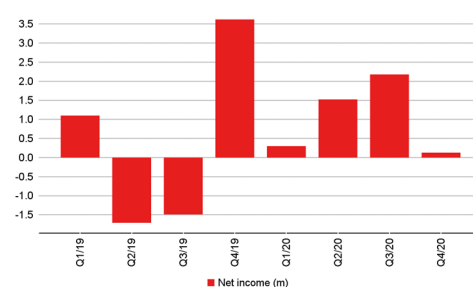
Source: Warburg Research

Sales by segments 2020; in %



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
	2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e	2031e	2032e	2033e	
Sales	89	96	97	98	99	100	101	102	103	104	105	106	107	
Sales change	60.9 %	7.3 %	0.9 %	1.0 %	1.0 %	1.0 %	1.0 %	1.0 %	1.0 %	1.0 %	1.0 %	1.0 %	1.0 %	2.0 %
EBIT	24	27	29	29	28	28	28	28	27	27	27	27	27	
EBIT-margin	26.9 %	28.4 %	29.8 %	29.3 %	28.7 %	28.2 %	27.7 %	27.2 %	26.7 %	26.2 %	25.8 %	25.3 %	24.8 %	
Tax rate (EBT)	2.2 %	2.0 %	1.9 %	2.5 %	2.7 %	2.8 %	3.0 %	3.1 %	3.3 %	3.4 %	3.6 %	3.7 %	3.9 %	
NOPAT	24	27	28	28	28	27	27	27	27	26	26	26	26	
Depreciation in % of Sales	9	9	10	10	11	11	12	12	13	13	14	15	15	
	9.8 %	9.3 %	9.9 %	10.3 %	10.8 %	11.3 %	11.7 %	12.2 %	12.6 %	13.0 %	13.4 %	13.8 %	14.2 %	
Changes in provisions	0	0	0	0	0	0	0	0	0	0	0	0	0	
Change in Liquidity from														
- Working Capital	1	0	0	0	0	0	0	0	0	0	0	0	0	
- Capex	10	15	15	15	15	15	15	16	16	16	16	16	16	
Capex in % of Sales	10.8 %	15.5 %	15.6 %	15.6 %	15.5 %	15.4 %	15.3 %	15.3 %	15.2 %	15.1 %	15.0 %	15.0 %	14.9 %	
Other	12	13	14	14	13	13	13	13	13	13	13	13	13	
Free Cash Flow (WACC Model)	10	8	9	9	10	10	10	11	11	11	12	12	12	13
PV of FCF	9	7	8	7	7	7	6	6	6	6	5	5	5	92
share of PVs	13.48 %			34.44 %										52.08 %

Model parameter

Derivation of WACC:		Derivation of Beta:	
Debt ratio	29.00 %	Financial Strength	1.20
Cost of debt (after tax)	3.8 %	Liquidity (share)	1.50
Market return	7.00 %	Cyclicalit	1.40
Risk free rate	1.50 %	Transparency	1.40
		Others	1.40
WACC	7.57 %	Beta	1.38

Valuation (m)

Present values 2033e	85		
Terminal Value	92		
Financial liabilities	61		
Pension liabilities	2		
Hybrid capital	0		
Minority interest	0		
Market val. of investments	29		
Liquidity	9	No. of shares (m)	32.4
Equity Value	153	Value per share (EUR)	4.71

Sensitivity Value per Share (EUR)

Beta	WACC	Terminal Growth							Beta	WACC	Delta EBIT-margin						
		1.25 %	1.50 %	1.75 %	2.00 %	2.25 %	2.50 %	2.75 %			-1.5 pp	-1.0 pp	-0.5 pp	+0.0 pp	+0.5 pp	+1.0 pp	+1.5 pp
1.64	8.6 %	3.67	3.74	3.81	3.89	3.97	4.06	4.16	1.64	8.6 %	3.26	3.47	3.68	3.89	4.10	4.30	4.51
1.51	8.1 %	4.00	4.08	4.17	4.27	4.37	4.49	4.61	1.51	8.1 %	3.59	3.82	4.04	4.27	4.49	4.72	4.94
1.44	7.8 %	4.18	4.27	4.37	4.48	4.60	4.73	4.87	1.44	7.8 %	3.78	4.01	4.25	4.48	4.71	4.95	5.18
1.38	7.6 %	4.38	4.48	4.59	4.71	4.85	4.99	5.16	1.38	7.6 %	3.98	4.23	4.47	4.71	4.96	5.20	5.44
1.32	7.3 %	4.59	4.71	4.83	4.97	5.12	5.29	5.47	1.32	7.3 %	4.21	4.46	4.72	4.97	5.22	5.48	5.73
1.25	7.1 %	4.82	4.95	5.09	5.25	5.42	5.61	5.82	1.25	7.1 %	4.45	4.72	4.98	5.25	5.52	5.78	6.05
1.12	6.6 %	5.36	5.52	5.70	5.90	6.13	6.38	6.67	1.12	6.6 %	5.03	5.32	5.61	5.90	6.20	6.49	6.78

- Peak EBITDA margin modelled in for 2023
- For the years thereafter we assume business continuation, though with price adjustments < cost inflation
- In light of increased vessel prices, we model capex > D&A to preserve the asset base
- Taxes mainly determined by the tonnage of the ships; cost of debt set at 4% (pre-tax)
- Market value of investments = multiple of 12x on investment income 2023e; minorities considered in the FCF calculation

Free Cash Flow Value Potential

Warburg Research's valuation tool "FCF Value Potential" reflects the ability of the company to generate sustainable free cash flows. It is based on the "FCF potential" - a FCF "ex growth" figure - which assumes unchanged working capital and pure maintenance capex. A value indication is derived via the perpetuity of a given year's "FCF potential" with consideration of the weighted costs of capital. The fluctuating value indications over time add a timing element to the DCF model (our preferred valuation tool).

in EUR m	2017	2018	2019	2020	2021e	2022e	2023e	
Net Income before minorities	6	6	2	5	24	27	29	
+ Depreciation + Amortisation	7	8	6	8	9	9	10	
- Net Interest Income	1	0	-1	-1	-2	-2	-2	
- Maintenance Capex	1	0	13	21	10	15	15	
+ Other	0	0	0	0	0	0	0	
= Free Cash Flow Potential	12	14	-5	-7	24	23	25	
FCF Potential Yield (on market EV)	18.5 %	26.3 %	-5.8 %	-8.2 %	7.6 %	7.0 %	7.7 %	
WACC	7.57 %	7.57 %	7.57 %	7.57 %	7.57 %	7.57 %	7.57 %	
= Enterprise Value (EV)	63	53	80	83	320	328	325	
= Fair Enterprise Value	154	186	n.a.	n.a.	321	304	333	
- Net Debt (Cash)	52	52	52	52	42	34	24	
- Pension Liabilities	2	2	2	2	2	2	2	
- Other	0	0	0	0	0	0	0	
- Market value of minorities	7	7	7	7	142	158	165	
+ Market value of investments	0	0	0	0	0	0	0	
= Fair Market Capitalisation	93	125	n.a.	n.a.	135	110	142	
Number of shares, average	32	32	32	32	32	32	32	
= Fair value per share (EUR)	2.87	3.86	n.a.	n.a.	4.16	3.40	4.38	
premium (-) / discount (+) in %					0.5 %	-17.9 %	5.8 %	
Sensitivity Fair value per Share (EUR)								
	8.57 %	2.32	3.19	n.a.	n.a.	3.01	2.31	3.18
	8.07 %	2.58	3.51	n.a.	n.a.	3.55	2.82	3.74
	7.82 %	2.72	3.68	n.a.	n.a.	3.84	3.10	4.05
WACC	7.57 %	2.87	3.86	n.a.	n.a.	4.16	3.40	4.38
	7.32 %	3.03	4.06	n.a.	n.a.	4.50	3.72	4.73
	7.07 %	3.21	4.27	n.a.	n.a.	4.86	4.06	5.10
	6.57 %	3.59	4.73	n.a.	n.a.	5.67	4.82	5.94

- Tax obligation is primarily determined by the tonnage --> no tax shield on net interest expense is applied
- In light of increased vessel prices, we model capex > D&A to preserve the asset base
- Market value of minorities = multiple of 12x applied on the annual minority interest

Valuation

	2017	2018	2019	2020	2021e	2022e	2023e
Price / Book	1.0 x	0.8 x	0.5 x	0.4 x	1.9 x	1.6 x	1.4 x
Book value per share ex intangibles	0.70	1.13	1.36	1.66	2.04	2.49	2.97
EV / Sales	1.4 x	1.0 x	1.4 x	1.5 x	3.6 x	3.4 x	3.4 x
EV / EBITDA	5.1 x	3.7 x	8.2 x	6.6 x	9.7 x	9.0 x	8.5 x
EV / EBIT	11.3 x	8.1 x	21.2 x	19.1 x	13.3 x	12.0 x	11.3 x
EV / EBIT adj.*	16.1 x	12.7 x	19.9 x	36.2 x	13.0 x	11.7 x	11.0 x
P / FCF	n.a.	181.4 x	n.a.	n.a.	6.3 x	6.3 x	5.8 x
P / E	8.2 x	6.2 x	17.4 x	5.5 x	11.5 x	9.7 x	8.9 x
P / E adj.*	8.2 x	6.2 x	17.4 x	5.5 x	11.5 x	9.7 x	8.9 x
Dividend Yield	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
FCF Potential Yield (on market EV)	18.5 %	26.3 %	-5.8 %	-8.2 %	7.6 %	7.0 %	7.7 %

*Adjustments made for: One-off effects, scheduled goodwill amortisation

Consolidated profit & loss

In EUR m	2017	2018	2019	2020	2021e	2022e	2023e
Sales	44	53	59	56	89	96	97
Change Sales yoy	n.a.	19.7 %	11.6 %	-5.5 %	60.9 %	7.3 %	0.9 %
Increase / decrease in inventory	0	0	0	0	0	0	0
Own work capitalised	0	0	0	0	0	0	0
Total Sales	44	53	59	56	89	96	97
Material expenses	15	23	32	38	50	53	52
Gross profit	29	30	26	18	39	43	45
<i>Gross profit margin</i>	<i>66.1 %</i>	<i>56.2 %</i>	<i>44.8 %</i>	<i>32.5 %</i>	<i>43.6 %</i>	<i>44.3 %</i>	<i>46.3 %</i>
Personnel expenses	19	15	10	7	5	5	5
Other operating income	24	19	7	10	3	3	3
Other operating expenses	22	19	13	8	4	4	4
Unfrequent items	0	0	0	0	0	0	0
EBITDA	12	15	10	13	33	36	38
<i>Margin</i>	<i>28.1 %</i>	<i>27.7 %</i>	<i>16.5 %</i>	<i>22.6 %</i>	<i>36.8 %</i>	<i>37.8 %</i>	<i>39.7 %</i>
Depreciation of fixed assets	7	1	3	5	7	8	8
EBITA	6	13	6	7	25	29	30
Amortisation of intangible assets	0	6	2	2	1	1	1
Goodwill amortisation	0	1	1	1	1	1	1
EBIT	6	7	4	4	24	27	29
<i>Margin</i>	<i>12.6 %</i>	<i>12.4 %</i>	<i>6.4 %</i>	<i>7.8 %</i>	<i>26.9 %</i>	<i>28.4 %</i>	<i>29.8 %</i>
EBIT adj.	4	4	4	2	25	28	29
Interest income	2	2	2	1	1	1	1
Interest expenses	1	2	3	3	3	3	3
Other financial income (loss)	3	-1	1	2	2	2	2
EBT	9	6	3	5	24	28	29
<i>Margin</i>	<i>21.1 %</i>	<i>11.6 %</i>	<i>5.9 %</i>	<i>9.7 %</i>	<i>26.9 %</i>	<i>28.7 %</i>	<i>30.4 %</i>
Total taxes	3	0	2	1	1	1	1
Net income from continuing operations	6	6	2	5	24	27	29
Income from discontinued operations (net of tax)	0	0	0	0	0	0	0
Net income before minorities	6	6	2	5	24	27	29
Minority interest	1	0	0	1	12	13	14
Net income	6	6	2	4	12	14	15
<i>Margin</i>	<i>12.6 %</i>	<i>11.8 %</i>	<i>2.6 %</i>	<i>7.4 %</i>	<i>13.1 %</i>	<i>14.5 %</i>	<i>15.7 %</i>
Number of shares, average	32	32	32	32	32	32	32
EPS	0.17	0.19	0.05	0.13	0.36	0.43	0.47
EPS adj.	0.17	0.19	0.05	0.13	0.36	0.43	0.47

*Adjustments made for: One-off effects, scheduled goodwill amortisation

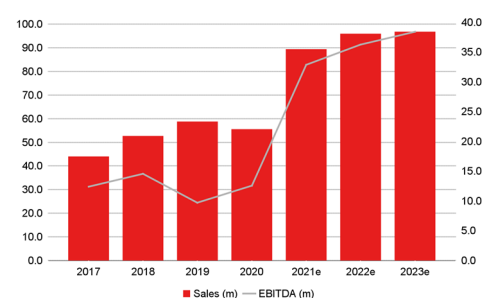
Guidance: Revenues: EUR 85-90m; EBIT adj.: EUR 30-32m.

Financial Ratios

	2017	2018	2019	2020	2021e	2022e	2023e
Total Operating Costs / Sales	71.9 %	72.3 %	83.5 %	77.4 %	63.2 %	62.2 %	60.3 %
Operating Leverage	n.a.	0.9 x	-3.7 x	-3.0 x	7.4 x	1.8 x	6.6 x
EBITDA / Interest expenses	11.9 x	9.7 x	3.5 x	4.3 x	11.0 x	12.1 x	12.8 x
Tax rate (EBT)	32.7 %	-4.2 %	51.0 %	11.9 %	2.2 %	2.0 %	1.9 %
Dividend Payout Ratio	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Sales per Employee	202,018	319,424	570,806	882,016	n.a.	n.a.	n.a.

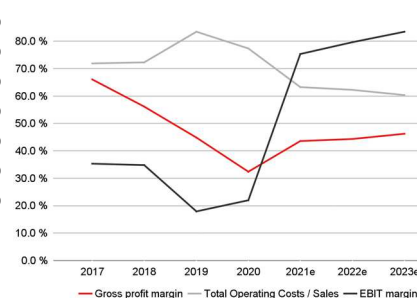
Sales, EBITDA

in EUR m

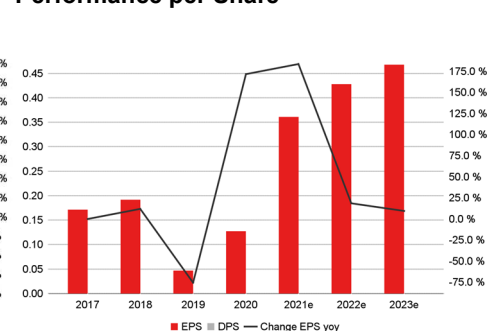


Operating Performance

in %



Performance per Share



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

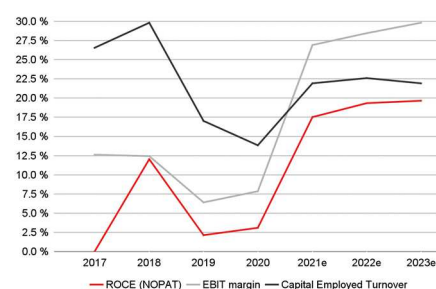
Consolidated balance sheet

In EUR m	2017	2018	2019	2020	2021e	2022e	2023e
Assets							
Goodwill and other intangible assets	21	13	7	4	3	2	2
thereof other intangible assets	14	8	3	1	1	1	1
thereof Goodwill	7	5	4	3	2	2	1
Property, plant and equipment	17	22	104	120	124	131	137
Financial assets	33	24	13	8	5	5	5
Other long-term assets	1	1	1	1	1	1	1
Fixed assets	73	61	125	132	133	139	145
Inventories	12	7	1	1	2	2	2
Accounts receivable	8	6	3	2	3	3	4
Liquid assets	18	16	10	9	18	26	36
Other short-term assets	8	13	10	19	19	20	20
Current assets	46	42	24	31	42	51	61
Total Assets	118	103	149	163	175	190	206
Liabilities and shareholders' equity							
Subscribed capital	32	32	32	32	32	32	32
Capital reserve	7	7	7	7	7	7	7
Retained earnings	4	11	12	18	30	44	59
Other equity components	0	0	0	0	0	0	0
Shareholders' equity	43	50	51	57	69	83	98
Minority interest	1	1	17	23	23	23	23
Total equity	45	51	69	80	92	106	121
Provisions	20	16	9	6	7	7	7
thereof provisions for pensions and similar obligations	2	2	2	2	2	2	2
Financial liabilities (total)	26	22	54	61	60	60	60
Short-term financial liabilities	1	9	7	8	5	5	5
Accounts payable	2	2	3	3	3	3	3
Other liabilities	23	10	13	12	12	13	13
Liabilities	73	52	80	83	83	85	85
Total liabilities and shareholders' equity	118	103	149	163	175	190	206

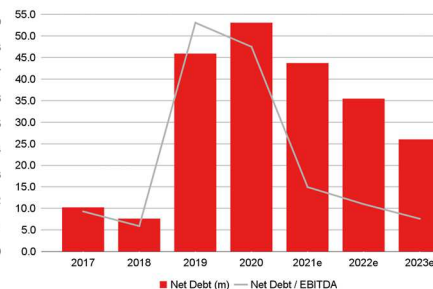
Financial Ratios

	2017	2018	2019	2020	2021e	2022e	2023e
Efficiency of Capital Employment							
Operating Assets Turnover	1.4 x	1.7 x	0.6 x	0.5 x	0.7 x	0.7 x	0.7 x
Capital Employed Turnover	0.8 x	0.9 x	0.5 x	0.4 x	0.7 x	0.7 x	0.7 x
ROA	7.7 %	10.2 %	1.2 %	3.1 %	8.8 %	10.0 %	10.5 %
Return on Capital							
ROCE (NOPAT)	n.a.	12.0 %	2.1 %	3.1 %	17.5 %	19.3 %	19.7 %
ROE	n.a.	13.3 %	3.0 %	7.6 %	18.5 %	18.2 %	16.7 %
Adj. ROE	n.a.	13.3 %	3.0 %	7.6 %	18.5 %	18.2 %	16.7 %
Balance sheet quality							
Net Debt	10	8	46	53	44	35	26
Net Financial Debt	8	6	44	52	42	34	24
Net Gearing	22.8 %	14.9 %	66.8 %	66.3 %	47.6 %	33.6 %	21.5 %
Net Fin. Debt / EBITDA	67.7 %	40.0 %	455.7 %	410.9 %	128.2 %	93.4 %	63.4 %
Book Value / Share	1.3	1.5	1.6	1.8	2.1	2.6	3.0
Book value per share ex intangibles	0.7	1.1	1.4	1.7	2.0	2.5	3.0

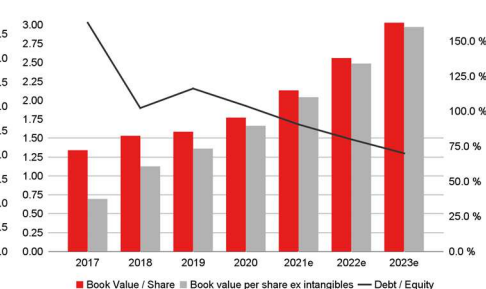
ROCE Development



Net debt in EUR m



Book Value per Share in EUR



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

Consolidated cash flow statement

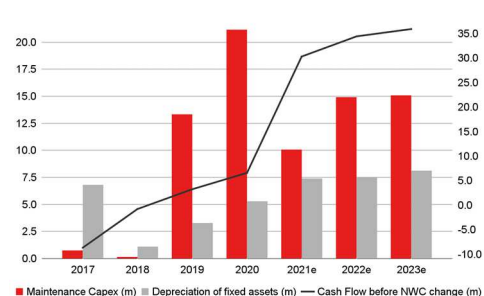
In EUR m	2017	2018	2019	2020	2021e	2022e	2023e
Net income	4	2	0	2	22	25	26
Depreciation of fixed assets	7	1	3	5	7	8	8
Amortisation of goodwill	0	1	1	1	1	1	1
Amortisation of intangible assets	0	6	2	2	1	1	1
Increase/decrease in long-term provisions	0	-3	-7	-3	0	0	0
Other non-cash income and expenses	-19	-8	5	-1	0	1	0
Cash Flow before NWC change	-9	-1	3	7	30	34	36
Increase / decrease in inventory	0	5	6	0	-1	0	0
Increase / decrease in accounts receivable	0	2	3	1	-1	0	0
Increase / decrease in accounts payable	0	-1	1	0	0	0	0
Increase / decrease in other working capital positions	4	-8	-3	-2	0	0	0
Increase / decrease in working capital (total)	4	-1	7	-1	-1	0	0
Net cash provided by operating activities [1]	-4	-2	10	5	29	34	36
Investments in intangible assets	-1	0	72	0	-1	-1	-1
Investments in property, plant and equipment	0	0	-85	-21	-9	-14	-14
Payments for acquisitions	0	-1	-8	1	0	0	0
Financial investments	0	2	4	-3	0	0	0
Income from asset disposals	1	2	2	2	2	2	2
Net cash provided by investing activities [2]	0	3	-16	-21	-8	-13	-13
Change in financial liabilities	0	-4	32	6	-1	0	0
Dividends paid	0	0	0	0	0	0	0
Purchase of own shares	0	0	0	0	0	0	0
Capital measures	0	0	0	0	0	0	0
Other	0	2	-32	8	-12	-13	-14
Net cash provided by financing activities [3]	0	-2	0	15	-13	-13	-14
Change in liquid funds [1]+[2]+[3]	-4	-2	-6	-1	9	8	9
Effects of exchange-rate changes on cash	-1	0	0	0	0	0	0
Cash and cash equivalent at end of period	18	16	10	9	18	26	36

Financial Ratios

	2017	2018	2019	2020	2021e	2022e	2023e
Cash Flow							
FCF	-4	0	-2	-13	21	21	23
Free Cash Flow / Sales	-8.7 %	0.4 %	-3.0 %	-24.3 %	23.7 %	22.4 %	24.0 %
Free Cash Flow Potential	12	14	-5	-7	24	23	25
Free Cash Flow / Net Profit	-68.9 %	3.4 %	-115.6 %	-326.6 %	181.4 %	154.6 %	153.1 %
Interest Received / Avg. Cash	n.a.	10.0 %	12.6 %	15.3 %	7.4 %	4.9 %	3.8 %
Interest Paid / Avg. Debt	n.a.	6.2 %	7.1 %	5.0 %	5.0 %	5.0 %	5.0 %
Management of Funds							
Investment ratio	1.7 %	0.3 %	22.7 %	38.1 %	10.8 %	15.5 %	15.6 %
Maint. Capex / Sales	1.7 %	0.3 %	22.7 %	38.1 %	11.3 %	15.5 %	15.6 %
Capex / Dep	10.9 %	1.8 %	223.9 %	258.6 %	109.4 %	166.9 %	158.0 %
Avg. Working Capital / Sales	n.a.	23.2 %	7.7 %	-0.9 %	-0.4 %	0.5 %	0.6 %
Trade Debtors / Trade Creditors	307.1 %	329.8 %	83.8 %	60.4 %	96.3 %	102.3 %	102.2 %
Inventory Turnover	1.2 x	3.3 x	26.8 x	39.3 x	29.8 x	29.5 x	28.4 x
Receivables collection period (days)	63	39	16	13	13	13	13
Payables payment period (days)	61	27	35	32	24	23	24
Cash conversion cycle (Days)	254	92	-12	-17	-8	-7	-7

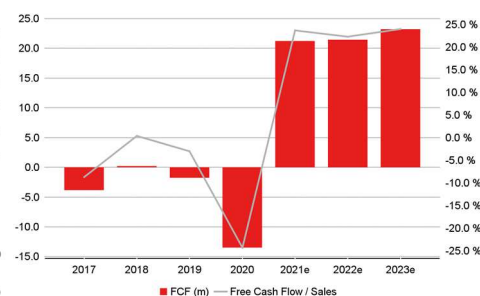
CAPEX and Cash Flow

in EUR m



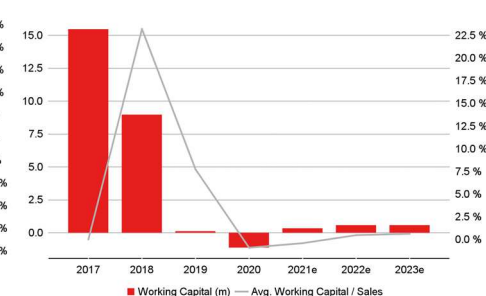
Source: Warburg Research

Free Cash Flow Generation



Source: Warburg Research

Working Capital



Source: Warburg Research

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Company	Disclosure	Link to the historical price targets and rating changes (last 12 months)
Ernst Russ	3, 4, 5	http://www.mmwarburg.com/disclaimer/disclaimer_en/DE000A161077.htm

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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.

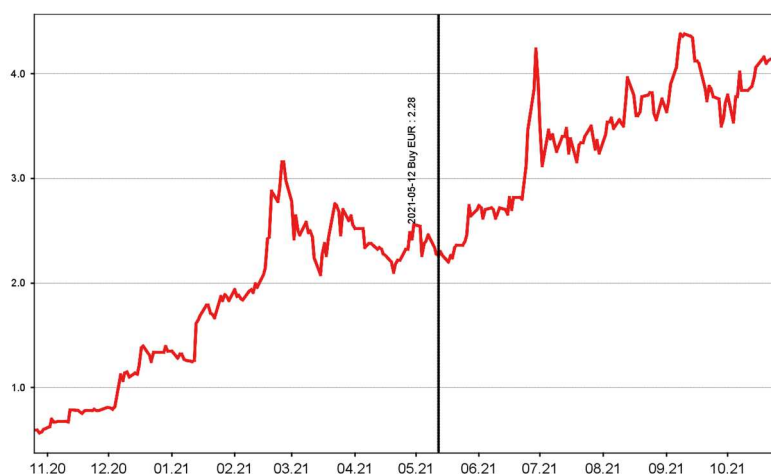
WARBURG RESEARCH GMBH – ANALYSED RESEARCH UNIVERSE BY RATING

Rating	Number of stocks	% of Universe
Buy	144	67
Hold	60	28
Sell	7	3
Rating suspended	3	1
Total	214	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	46	78
Hold	11	19
Sell	0	0
Rating suspended	2	3
Total	59	100

PRICE AND RATING HISTORY ERNST RUSS AS OF 25.10.2021


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.

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