

## Masterflex (MZX GY) | Industrial Technology

October 28, 2020

### Back to double digit margins

Masterflex develops and manufactures polymer-based hoses for a big variety of industrial applications. In ten out of the last thirteen years, the group earned EBIT-margins between 8.0%-14% which underlines its market leading position and pricing power. Its top-line growth exceeded the expansion of its underlying market over two cycles. A steep and sudden volume decline in its key customer segment, capital goods, caused a margin drop towards 5.7% in FY19 and the initiation of a restructuring plan to return to double digit margins by FY22e. Based on a better than expected performance in H1/20 and a moderate 35% operating leverage, Masterflex should be able to at least deliver on its FY20 guidance and to achieve its restructuring targets. Further organic growth and acquisitions should lift group sales towards EUR200m in 2030e. Most likely, the lion's share of any future growth happens in non-cyclical sectors that already contribute 22% of group sales. A greater exposure in industries like medtech, food&beverage or renewable energy should serve as a further support to expand profitability.

**Valuation:** Assuming Masterflex expands as expected, the business model becomes less cyclical and substantially more profitable vs today. On that basis, a return to historic multiples appears realistic, including a chance for the share price to double. We initiate coverage with a BUY rating and a price target of EUR7.50 per share.

Fundamentals (in EUR m)	2017	2018	2019	2020e	2021e	2022e
Sales	75	77	80	71	77	84
EBITDA	10	9	9	7	9	12
EBIT	7	6	5	3	6	8
EPS adj. (EUR)	0.46	0.36	0.26	0.10	0.31	0.52
Ebit (adj)	n.a.	n.a.	n.a.	3.6	n.a.	n.a.
DPS (EUR)	0.00	0.00	0.00	0.07	0.10	0.15
BVPS (EUR)	4.00	4.23	4.43	4.58	4.87	5.39
Net Debt incl. Provisions	20	21	23	25	23	20
Ratios	2017	2018	2019	2020e	2021e	2022e
EV/EBITDA	10.4	9.5	7.2	10.8	7.5	5.4
EV/EBIT	15.5	14.6	14.6	28.3	12.8	8.0
P/E adj.	18.9	19.8	17.0	47.7	15.7	9.4
Dividend yield (%)	0.0	0.0	0.0	1.4	2.0	3.0
EBITDA margin (%)	13.1	12.2	11.4	9.4	12.1	14.8
EBIT margin (%)	8.8	7.9	5.7	3.6	7.1	10.1
Net debt/EBITDA	2.0	2.3	2.5	3.8	2.5	1.6
ROE (%)	13.1	8.7	6.1	2.3	6.6	10.2
PBV	2.2	1.7	1.0	1.1	1.0	0.9

Sources: Refinitiv, Metzler Research

**Buy**

initiation of coverage

Price\*

EUR 4.86

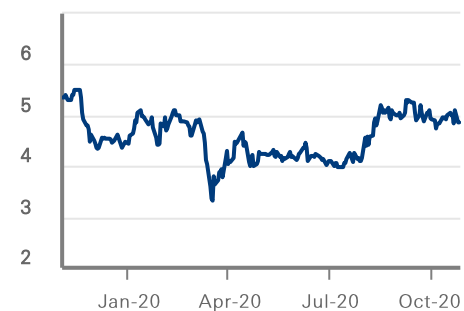
Price target

EUR 7.50

\* XETRA trading price at the close of the previous day unless stated otherwise in the Disclosures

Market Cap (EUR m)	47
Enterprise Value (EUR m)	72
Free Float (%)	100.0

Price (in EUR)



Performance (in %)	1m	3m	12m
Share	-3.8	16.8	-10.0
Rel. to SDAX	-0.4	18.2	-12.4

Sources: Refinitiv, Metzler Research

### Sponsored Research



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# company report

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# company report

## Key Data

### Company profile

CEO: Dr. Andreas Bastin

CFO: Mark Becks

Gelsenkirchen

### Major shareholders

#### Key figures

P&L (in EUR m)	2017	%	2018	%	2019	%	2020e	%	2021e	%	2022e	%
<b>Sales</b>	<b>75</b>	<b>12.3</b>	<b>77</b>	<b>3.4</b>	<b>80</b>	<b>3.5</b>	<b>71</b>	<b>-11.3</b>	<b>77</b>	<b>9.1</b>	<b>84</b>	<b>8.5</b>
<b>EBITDA</b>	<b>10</b>	<b>11.0</b>	<b>9</b>	<b>-3.5</b>	<b>9</b>	<b>-3.2</b>	<b>7</b>	<b>-27.0</b>	<b>9</b>	<b>41.0</b>	<b>12</b>	<b>32.1</b>
EBITDA margin (%)	13.1	-1.1	12.2	-6.7	11.4	-6.5	9.4	-17.7	12.1	29.1	14.8	21.8
<b>EBIT</b>	<b>7</b>	<b>8.3</b>	<b>6</b>	<b>-7.6</b>	<b>5</b>	<b>-25.6</b>	<b>3</b>	<b>-43.7</b>	<b>6</b>	<b>116.4</b>	<b>8</b>	<b>53.3</b>
EBIT margin (%)	8.8	-3.6	7.9	-10.6	5.7	-28.1	3.6	-36.5	7.1	98.2	10.1	41.3
<b>Financial result</b>	<b>-1</b>	<b>22.5</b>	<b>-1</b>	<b>10.3</b>	<b>-1</b>	<b>-21.9</b>	<b>-1</b>	<b>14.8</b>	<b>-1</b>	<b>0.0</b>	<b>-1</b>	<b>0.0</b>
<b>EBT</b>	<b>5</b>	<b>18.5</b>	<b>5</b>	<b>-7.0</b>	<b>3</b>	<b>-35.5</b>	<b>1</b>	<b>-55.2</b>	<b>4</b>	<b>204.2</b>	<b>7</b>	<b>66.5</b>
Taxes	-1	8.7	-2	-67.6	-1	54.2	-0	42.4	-1	-204.2	-2	-66.5
Tax rate (%)	-19.5	n.a.	-35.1	n.a.	-24.9	n.a.	-32.0	n.a.	-32.0	n.a.	-32.0	n.a.
Net income	4	27.7	3	-25.0	2	-25.4	1	-59.4	3	204.2	5	66.5
Minority interests	0	-87.7	0	n.m.	0	-42.0	0	-100.0	0	n.a.	0	n.a.
<b>Net Income after minorities</b>	<b>4</b>	<b>25.6</b>	<b>3</b>	<b>-21.5</b>	<b>3</b>	<b>-26.2</b>	<b>1</b>	<b>-60.9</b>	<b>3</b>	<b>204.2</b>	<b>5</b>	<b>66.5</b>
Number of shares outstanding (m)	9	8.0	10	2.0	10	0.0	10	0.0	10	0.0	10	0.0
<b>EPS adj. (EUR)</b>	<b>0.46</b>	<b>16.2</b>	<b>0.36</b>	<b>-23.0</b>	<b>0.26</b>	<b>-26.2</b>	<b>0.10</b>	<b>-60.9</b>	<b>0.31</b>	<b>204.2</b>	<b>0.52</b>	<b>66.5</b>
<b>DPS (EUR)</b>	<b>0.00</b>	<b>n.a.</b>	<b>0.00</b>	<b>n.a.</b>	<b>0.00</b>	<b>n.a.</b>	<b>0.07</b>	<b>n.a.</b>	<b>0.10</b>	<b>42.9</b>	<b>0.15</b>	<b>50.0</b>
Dividend yield (%)	0.0	n.a.	0.0	n.a.	0.0	n.a.	1.4	n.a.	2.0	n.a.	3.0	n.a.
<b>Cash Flow (in EUR m)</b>	<b>2017</b>	<b>%</b>	<b>2018</b>	<b>%</b>	<b>2019</b>	<b>%</b>	<b>2020e</b>	<b>%</b>	<b>2021e</b>	<b>%</b>	<b>2022e</b>	<b>%</b>
<b>Gross Cash Flow</b>	<b>9</b>	<b>14.0</b>	<b>8</b>	<b>-12.1</b>	<b>8</b>	<b>8.5</b>	<b>6</b>	<b>-25.5</b>	<b>8</b>	<b>28.7</b>	<b>10</b>	<b>26.0</b>
<b>Increase in working capital</b>	<b>-2</b>	<b>n.a.</b>	<b>-2</b>	<b>n.a.</b>	<b>-2</b>	<b>n.a.</b>	<b>-2</b>	<b>n.a.</b>	<b>-0</b>	<b>n.a.</b>	<b>-0</b>	<b>n.a.</b>
<b>Capital expenditures</b>	<b>-4</b>	<b>51.2</b>	<b>-4</b>	<b>9.3</b>	<b>-2</b>	<b>38.0</b>	<b>-3</b>	<b>-48.0</b>	<b>-3</b>	<b>5.1</b>	<b>-3</b>	<b>-8.5</b>
D+A/Capex (%)	-81.0	n.a.	-93.8	n.a.	-208.4	n.a.	-126.1	n.a.	-125.0	n.a.	-117.5	n.a.
<b>Free cash flow (Metzler definition)</b>	<b>2</b>	<b>297.1</b>	<b>2</b>	<b>-9.1</b>	<b>4</b>	<b>110.3</b>	<b>1</b>	<b>-80.3</b>	<b>4</b>	<b>412.7</b>	<b>6</b>	<b>38.3</b>
Free cash flow yield (%)	2.8	n.a.	3.1	n.a.	10.3	n.a.	1.9	n.a.	9.5	n.a.	13.1	n.a.
Dividend paid	0	n.a.	0	n.a.	0	n.a.	-1	n.a.	-1	-42.9	-1	-50.0
<b>Free cash flow (post dividend)</b>	<b>2</b>	<b>297.1</b>	<b>2</b>	<b>-9.1</b>	<b>4</b>	<b>110.3</b>	<b>2</b>	<b>-65.1</b>	<b>5</b>	<b>251.9</b>	<b>8</b>	<b>40.3</b>
<b>Balance sheet (in EUR m)</b>	<b>2017</b>	<b>%</b>	<b>2018</b>	<b>%</b>	<b>2019</b>	<b>%</b>	<b>2020e</b>	<b>%</b>	<b>2021e</b>	<b>%</b>	<b>2022e</b>	<b>%</b>
<b>Assets</b>	<b>73</b>	<b>20.8</b>	<b>75</b>	<b>3.0</b>	<b>82</b>	<b>8.5</b>	<b>83</b>	<b>1.2</b>	<b>85</b>	<b>2.6</b>	<b>88</b>	<b>4.3</b>
<b>Goodwill</b>	<b>9</b>	<b>182.0</b>	<b>9</b>	<b>0.0</b>	<b>9</b>	<b>0.0</b>	<b>9</b>	<b>0.0</b>	<b>9</b>	<b>0.0</b>	<b>9</b>	<b>0.0</b>
<b>Shareholders' equity</b>	<b>37</b>	<b>30.3</b>	<b>40</b>	<b>7.6</b>	<b>42</b>	<b>4.5</b>	<b>44</b>	<b>3.6</b>	<b>46</b>	<b>6.5</b>	<b>51</b>	<b>10.7</b>
Equity/total assets (%)	51.3	n.a.	53.5	n.a.	51.5	n.a.	52.7	n.a.	54.7	n.a.	58.1	n.a.
<b>Net Debt incl. Provisions</b>	<b>20</b>	<b>7.9</b>	<b>21</b>	<b>9.5</b>	<b>23</b>	<b>8.3</b>	<b>25</b>	<b>8.2</b>	<b>23</b>	<b>-6.3</b>	<b>20</b>	<b>-14.1</b>
<b>thereof pension provisions</b>	<b>0</b>	<b>n.a.</b>	<b>0</b>	<b>n.a.</b>	<b>0</b>	<b>n.a.</b>	<b>0</b>	<b>n.a.</b>	<b>0</b>	<b>n.a.</b>	<b>0</b>	<b>n.a.</b>
Gearing (%)	52.3	n.a.	53.2	n.a.	55.2	n.a.	57.6	n.a.	50.7	n.a.	39.3	n.a.
Net debt/EBITDA	2.0	n.a.	2.3	n.a.	2.5	n.a.	3.8	n.a.	2.5	n.a.	1.6	n.a.

### Structure

#### Sales by region (mln) 2020e



Sources: Refinitiv, Metzler Research

# company report

## Investment Case

Masterflex, founded in 1987, is specialised on the development and production of hoses, tubes and related joining and connecting technologies.

After divesting roughly 50% of group sales in 2009, the group focuses entirely on speciality products in a variety of niche markets. Since then it managed an average annual sales growth of 8%, without any meaningful acquisitions. With the exception of two years (2015/2018) EBIT-margins were above 9.0% with a peak of 14.1% in 2011. That track-record suggests that Masterflex, over all, has the right products, market position and corporate structures in place to generate decent returns over the cycle.

### **8% Sales CAGR, > 9% EBIT with speciality products**

The decline in profitability to a 5.7% EBIT margin in 2019 triggered the initiation of a restructuring-and growth initiative "Back-to-double-digit (B2DD) with the target to return to double-digit margin territory in FY22 and to grow the top-line from EUR79m to EUR100m by 2023. A reduction of complexity and labour-intensity on the cost side and a stronger exposure to growing industries such as MedTech, Aviation and renewable energy are core pillars of the profitability enhancement plan.

### **Decent chance to return to double digit margins**

Based on the fact that the current executive board already managed EBIT-margins in the 10.1% to 14.1% bracket between 2010 and 2014, we consider the successful implementation of the B2DD-plan and hence the achievement of EBIT-margins above 10% as feasible.

Even before Masterflex may achieve its mid-term sales target of EUR100m in FY23e, the operating upside vs 2020 appears to be huge: A rather conservative operating leverage assumption of 35% on 22% to-line growth in the coming two years is sufficient to lift Masterflex' EBIT-margin back into the double digits by FY22e. A return to historic margin territory should also send the shares back to its historic average trading range (2015-2019) including a P/E around 21x compared with 11x for FY22e, based on our EPS estimate for that year. On that assumption MZX shares would trade around EUR10.65 vs a level around EUR5,00 today.

### **Returning to historic margins and multiples bears massive share price upside**

Apart from cost cutting efforts that might even be accelerated in the current economic crisis, we believe the group's intention to grow its business with less cyclical industries such as the pharma- rail- or medtech-sectors bears a decent chance to reduce top-line volatility and to generate more sales within sectors that are likely to grow faster and more sustainable than Masterflex' industrial customers. The combination of cost cutting measures and a less volatile top-line bears substantial upside to average profitability over the cycle.

Adding Masterflex' market position, pricing power and growth opportunities – organic/anorganic – to the likely benefits from the restructuring plan and finally the chance for a share price revaluation in line with historic multiples, we consider the shares as a very solid investment opportunity, exactly at a time when the earnings impact from the B2DD-plan should become visible on the bottom-line.

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## Group profile

The Masterflex group focuses on individualized solutions for a large variety of different customers, industries and applications. Masterflex hoses are used by its customers to transport almost all kinds of liquid, gaseous or solid materials. In addition to the transport media, the group also develops and produces required systems to connect the hose or tube with the respective devices on the customer side. All hoses and tubes are made from different kinds of flexible materials such as plastics, synthetic rubber or industrial fabrics.

### Development and production of hoses and related technologies

The Masterflex group does not produce any connectivity products made from steel or rubber. Micro-hoses for hearing devices and a large variety of other end-customer products (e.g. for coffee machines) belong to the product portfolio as well as large, acid-resistant tubes for processing purposes in the chemical industry. In total, the group offers over 100 different tubes and hoses and related connectivity products. Masterflex is not active at all in the mass-market for industrial standard hoses or retail markets. The group quantifies its target market with an annual volume of EUR2.0bn opposed to about EUR21bn for the mass markets.

### Product individualisation limits price pressure

Typically, a hose out of the Masterflex group is no core part of any end product or production process. It plays no major role in the design phase of a customer's machine or the design phase for a plant. As a consequence, Masterflex' products have to be developed to fit into a given product- or process- environment, including the physical conditions (e.g. heat, pressure) and space restrictions that come along with it. Consequently, individualisation is a key characteristic of all group products. The upside of that situation is a relatively limited price sensitivity for any given hose among Masterflex' customers. Quality is of major importance as any leakage causes downtimes on the customer side. The price of a system (hose and joining devices) relative to the price of a customer's end-product is also rather small which adds to the pricing power of the group.

For most customer projects that comprise larger production volumes and shipping over several quarters, Masterflex negotiates price moving clauses to pass on fluctuations in procurement prices for raw materials to the customer.

### Managing the trade-off between complexity and cost control

The downside of Masterflex' highly diversified product portfolio is a very limited chance to standardize production processes and related logistics. Another reason for the high degree of individualisation of its product portfolio is the history of the group: The group consists of seven different brands of which five were acquired by Masterflex over time. The group's core products, spiral hoses, are being manufactured and marketed under the Masterflex brand. All other products carry their individual brand names with Masterflex functioning as an umbrella brand. Each brand has its own manufacturing site and product development.

A key challenge for management under the current structure is to handle the trade-off between individualisation and cost control: A very high degree of individualisation within the Masterflex group which basically functions as a holding, allows to capitalize on seven well established brand names in each individual end market. It also helps to maintain premium pricing and the position as a technology leader. The flip-side of that strategy is complexity that could eat into profitability:

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Diversification limits scale-effects in hose-manufacturing. Close ties between design and production reduces the chance to relocate production to low-cost countries.

## Experienced management behind margin revival plan

Historically, the group's applied strategy translated into a decent EBIT-margin of 10% on average between 2007 and 2019. Both, CEO and CFO are in the group board since 2008 (CEO) and 2009 (CFO). Mounting staff cost and the weakening capital goods sector as of late 2019 were largely responsible for the drop in profitability towards a 5.7% EBIT-margin trough in 2019 which marked the lowest level in 13 years. Management's "back to double digit" program is supposed to return to levels above 10% by 2022e.

## How to return to decent margins - Masterflex' restructuring plan

### Managing complexity has a high priority

Masterflex' brand-focussed structure allows to address end customers with highly individualized product solutions and helps to manifest and expand reputations of each of the individual brands under the group umbrella. However, it also comprises the immanent risk to maintain redundant overhead-structures, to purchase raw materials individually for each brand or to maintain sub-scale entities under the holding roof.

Those circumstances were certainly among the reasons why management now decided to streamline its headcount and to simplify its entire organisation. The years with the lowest EBIT-margin in the last decade 2015, and 2019 – were also the years with the highest labour cost intensity within the group. Roughly speaking, a reduction of total labour cost by 10% in 2019 would have propelled the EBIT-margin back into double digit territory.

### Key components of the "back-to-double-digit" plan

B2DD - Components	EURm
Workforce optimization	1.4
Product innovation	0.6
Material expenses	0.5
<b>TOTAL SAVINGS</b>	<b>2.5</b>
<b>in % of FY19 sales</b>	<b>3.1%</b>

Sources: Metzler Research, Masterflex

### Expanding sales per head is essential ...

Apparently, there are two major sources for the group to return to the last decade's profitability:

1) improving revenues per employee to trigger a decline in personnel cost relative to sales by at least 200-300bps vs the 40.9% peak level of 2019.

### ... enriching the product mix as well

2) enhancing the product mix via the elimination of slow selling and overly complex product series to achieve a decline in material spending relative to sales. A streamlined product portfolio may contribute another 50-80bps EBIT-margin improvement over a period of two years or so. Those measures could help Masterflex to return to a performance it already achieved some years ago. The current economic crisis may even become a catalyst to accelerate required changes in the

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cost structure.

## **Management's cost saving plans sound realistic**

Our cost saving assumptions are very much in line with savings, management targets under its B2DD (back to double digit) restructuring program. According to that plan, EUR1.4m or 175bps of FY19 sales are supposed to come from staff cost savings. Another EUR0.6m (75bps) are linked with product innovation and a further EUR0.5m (63bps) are supposed to come from reduced material costs. Total planned savings under the B2DD-plan amount to EUR2.5m or roughly 290bps of EUR86m sales, Masterflex may reach in FY21e or FY22e. Given the fact that targeted savings were decided before the pandemic, we believe the savings plan could be further extended towards EUR3.0m savings, predominantly via greater optimizations in staff costs. Such an expansion could close the gap in our labour savings assumption of 200-300bps of sales and the 175bps in the current plan. Site closures in France and the Czech Republic in H2/20 are a first structural step to reduce Masterflex' biggest individual cost position.

## **A greater focus on growing end-markets**

Looking further beyond, a different sales mix could turn out to be as lucrative as the cost saving measures: Today, sales into the food&beverage, medtech and renewable energy sectors account for roughly 24% of group sales. Growing business with those less-cyclical sectors could provide Masterflex with a better capacity utilisation and stronger top-line growth as most of these industries enjoy annual growth clearly above GDP. Typically, customers with decent margins like in pharma, med-tech or those with a limited focus on profitability (public rail) allow suppliers better pricing for their products opposed to those customers in highly competitive industries like auto or capital goods. For sure, changes in the customer profile are only to be achieved over time, however, Masterflex already began to increase its marketing efforts in the "right" industries. Mix changes could hence develop into a lasting profitability tailwind for the hose-maker towards the middle of the decade.

## **Centralising more functions under the group umbrella**

The agglomeration of seven rather individually operating brands under the Masterflex umbrella were so far no obstacle for the achievement of EBIT-margins above 10% in five out of the last thirteen years, despite a relatively small degree of integration in the group. However, the retention of largely independent brands under a holding-like structure typically leaves a number of cost saving potentials untouched. Joint purchasing and one centralised group treasury have already been established. However, streamlining the overall product portfolio or the network of production sites to eliminate double-work is typically tougher to achieve. Modifications to Masterflex' group structure may hence become a source of further profitability improvements at some stage.

## **Key driver of group earnings**

The following table puts the key levers of group profitability and its planned changes under the restructuring plan into a longer-term perspective. Regardless of fluctuations in procurement costs and material content of the hosemaker's products, labour costs dominated the p&I ever since as the single most relevant individual cost item. Any cut in that line, whether it comes from a greater degree of automatization, a relocation of production volumes to low-cost sites, or efficiency improvements, would contribute a substantial EBIT-uplift. Any sustainable margin expansion in Masterflex' business model will largely hinge on that line of the p&I.

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## Group sales and major p&f components over a cycle

	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20e	FY21e	FY22e	FY23e
Revenues	57.90	62.47	64.11	66.49	74.68	77.24	79.97	70.96	78.92	85.42	92.77
+/-	5.3%	7.9%	2.6%	3.7%	12.3%	3.4%	3.5%	-11.3%	11.2%	8.2%	8.6%
Cost of materials	18.10	20.37	20.83	20.80	24.31	25.24	25.97	22.49	24.86	27.16	29.22
Ratio	31.3%	32.6%	32.5%	31.3%	32.6%	32.7%	32.5%	31.7%	31.5%	31.8%	31.5%
Personel expenses	21.85	23.27	25.96	26.50	28.52	30.79	32.68	30.16	31.17	31.26	33.40
Ratio	37.7%	37.2%	40.5%	39.9%	38.2%	39.9%	40.9%	42.5%	39.5%	36.6%	36.0%
Employees	0	567	609	601	642	689	676	589	600	620	660
Sales per head	0	110,169	105,274	110,626	116,316	112,109	118,297	120,470	131,526	137,777	140,562
<b>Profitability</b>											
EBITDA	8.77	9.17	7.67	8.81	9.78	9.44	9.14	6.67	9.58	12.63	14.18
Margin	15.1%	14.7%	12.0%	13.3%	13.1%	12.2%	11.4%	9.4%	12.1%	14.8%	15.3%
EBIT (adj)	6.11	6.32	4.87	6.10	6.60	6.10	4.54	2.56	5.63	8.62	9.72
Margin	10.6%	10.1%	7.6%	9.2%	8.8%	7.9%	5.7%	3.6%	7.1%	10.1%	10.5%

Source: Metzler Research

## Promising performance during the pandemic

Masterflex reported an EBIT of EUR2.25m for H1/20 or EUR2.5m excluding costs to close a small French site, on sales of EUR37.4m. Within H1/20, Q1 sales were down 2.9% y/y while Q2 sales dropped another 19.0% y/y. Given the hose maker's substantial exposure to the capital goods industry, the 19% y/y decline in Q2 appears quite moderate. Initial figures for Q3 point towards a rebound in business activities and a chance to limit the sales decline over a year ago to a single digit figure. Apparently, management applied a very tight cost control including short-time working schemes for several German sites through the first half of the year. The y/y EBIT decline in H1/20 implies a very moderate operating leverage of 26%, or even 20% excluding the extra costs in France.

### No EBIT-loss in Q2 despite a 19% drop in the top-line

The limited drop in earnings is even more surprising as personnel costs relative to sales expanded to 41.3% (39.0%). Even the unadjusted EBIT figure of EUR2.25m almost matches the upper end of this year's EBIT guidance of EUR2,5m. With Q3 business activity indicating no worse performance vs a year ago, Masterflex has every chance to beat its current earnings outlook, even excluding the adjustment of some EUR1,0m costs to shut down two sites in the running year.

### Reasonable chance to arrive above guidance

Beating FY20 targets would not only increase the chance to return to double digit margins (FY22e) prior to the EUR10m group sales, planned for 2023, it would also indicate Masteflex' relative strengths under harsh conditions, relative to a lot of other groups from the capital goods sector. Key reason behind is the diversified customer base of the group, including a growing share of less cyclical industries such a food, pharma and alternative energy.



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**A 35% operating leverage is enough for a margin above 10%**

Current efforts to trim the group’s cost base should have a positive impact on operating leverage out of the crisis. Assuming group sales in FY22e arrive at a level of EUR85m, compared with a pre-crisis level of EUR80m in FY19, an operating leverage of 35% would already be sufficient to more than triple the EUR2.5m EBIT management is guiding for for the running year. In that case, Masterflex would achieve a 10.1% EBIT margin which is the core target of its restructuring plan.

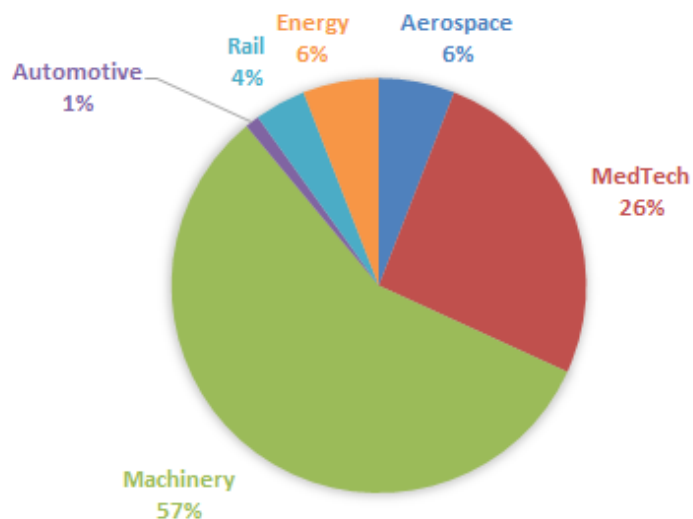
In other words: the limited hit on the group by the pandemic in H1/20 and a rather conservative leverage assumption for the upcoming 24months or so make the achievement of the restructuring plan’s key target a very realistic scenario.

**Strategy beyond the restructuring plan (B2DD)**

With the key pillar of the restructuring plan – double digit profitability – on the agenda already for FY22 management already outlined how it intends to further develop the group. Organic expansion should lift group sales up to EUR100m by FY23 or FY24. Another seven (six) years later the board plans with EUR200m revenues, while that number contains a yet unspecified contribution from acquisitions. Masterflex operates in largely atomized markets with an uncounted number of small, family-owned competitors. The vast majority of those companies are of much smaller size with a limited geographic sphere of activity.

**Target: EUR100m sales by 2024, EUR200m six years later**

Sales per customer industry



Sources: Metzler Research, Masterflex

**Ample opportunities to grow via acquisitions**

That environment should provide numerous opportunities to expand its product portfolio via non-organic growth. Assuming Masterflex would manage EUR100m sales in FY23 and maintains its average top-line growth (FY09-FY18: 7.6%) in the years 2023-2030, it would expand its top-line to EUR167m which leaves the non-organic contribution to EUR33m. The expansion is also intended to further develop

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the mix of customer industries towards a smaller capital-goods exposure and a growing share of business with medtech- food&nutrition- or alternative energy customers. As such industries are much less price-sensitive as the capital goods sector, such a move would certainly bear further upside to group profitability.

## How to develop into a EUR200m sales group

Following the portfolio reshuffle in 2009, the group expanded its top-line by 7.6% on average per year which is roughly 3x global GDP growth in the Western World. Masterflex generates around 72% of its business within Europe, thereof 45-50% come out of Germany.

Assuming the by far most relevant customer industry of Masterflex, the capital goods sector but also the automakers and the rolling stock business grew with the overall economy at best, Masterflex expansion over the last ten years is remarkable and suggests considerable market share gains over that period. Sectors with above-average growth (MedTech, pharma, aerospace) stand for about 26% of group sales. Management claims the group occupied a market leading position in Europe. Roughly one third of sales each come from end-customers, manufacturers and dealers.

### Recent top-line growth suggests substantial market share gains

Looking forward, Masterflex aims to expand its business specifically with the food&pharma, aerospace and medtech sectors. Those sectors are much less cyclical vs the capital goods industries that dominate Masterflex' business today. Assuming that strategy is successful, it would also be supportive to the planned accelerated top-line growth and further improve the hose-makers pricing position as the aforementioned sectors clearly focus on product quality rather than purchase-price optimizations. A second leg of the planned group expansion is a strengthened presence in the US and Asia where the group is under-represented nowadays.

Masterflex expanded its top-line by about EUR42m in the last ten years to EUR80m in FY19. Current group plans comprise a further top-line expansion to EUR200m before the end of the decade with a mix of organic (EUR140-150m) and non-organic (EUR50-60m) growth. As mentioned before, that target is broadly in line with organic growth between 2009 and 2018.

Still, we believe a stronger focus on industries with profound growth would be of great help to sustain its historic organic growth of 7.6% p.a. unless the tube-maker would bank on further substantial market share gains which is at least no part of the communicated strategy. Under current economic conditions and the efforts that have to be made to implement the restructuring program, any top-line contribution from m&a appears unlikely to come before late 2021e.

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## Masterflex' markets

### Macro-environment around the group

We use two different approaches to illustrate Masterflex' macro-environment:

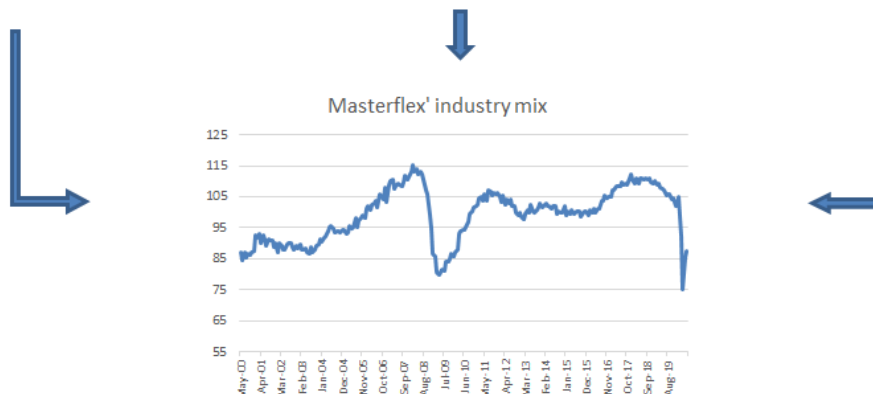
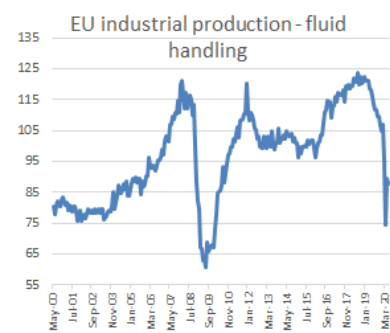
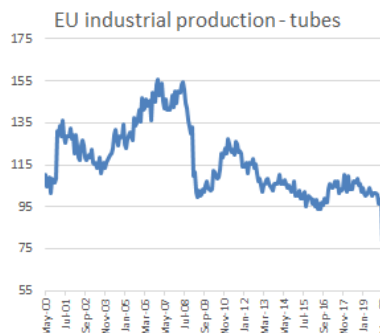
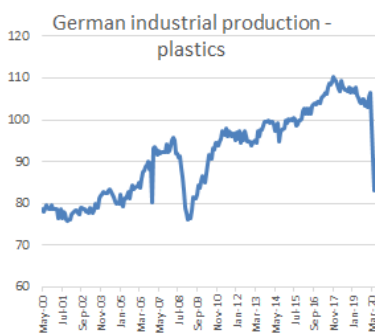
Firstly, we look into the industry of the German hose maker to assess its competitive position.

Secondly, we look into the end-markets of the group to assess its growth potential over coming years.

### We combine three sub-sectors to arrive at a proxy for Masterflex' industry

Although there is no data available that exactly resembles Masterflex product portfolio, industrial production data for several European markets such as plastic-products but also fluid handling equipment and the production of tubes, pipes and related profiles should provide a reliable proxy for Masterflex competitive environment. The second set of data comprises industrial production figures for Masterflex' end-markets such as food&pharma, rail, aerospace and medical equipment. To reflect Masterflex' exposure to the capital goods sector we use different figures from the IFO Institute on German manufacturing business expectations and auto production.

### 3 sub-industries together constitute a proxy for Masterflex' industry



Sources: Bloomberg, Metzler Research

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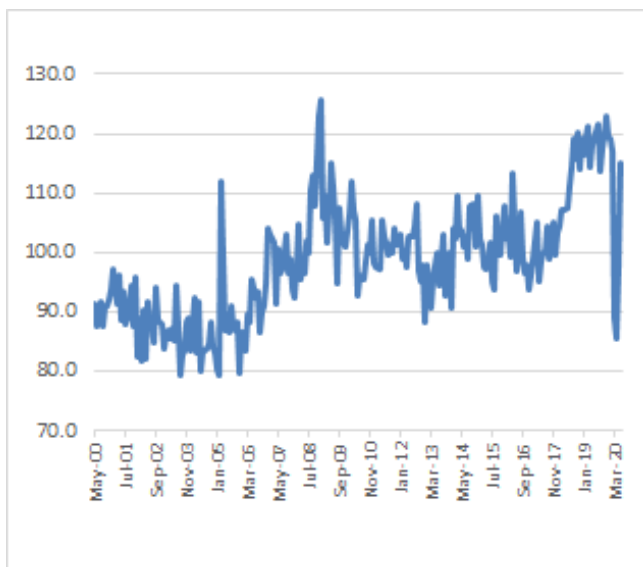
By adding up industrial production figures for the European fluid handling- tubes- and plastics-sectors, we arrive at a synthetic proxy for the industry development behind the Masterflex group. The plastics sector enters our index with a 50% weight while fluid handling and tubes enter each with 25%. We identify two major cycles. The first one stretches from June 2000 to April 2008 with an average annual growth of 3.8%. The second cycle began with a trough in April 2009 to last until January 2019. That trend that comprised a period of four years of stagnation (2014-2016) expanded over the full ten-year period with a meagre 1.4%.

In other words: It appears the European hose- and tube-making sector expanded more that twice as fast as the European economy at the beginning of the millennium, while the growth rate of the second cycle that just ended about a year ago was broadly in line with GDP in Europe. As of late, the European tube-making industry experienced a much stronger collapse in production through Q2/20 compared with the overall plastic products industry and the fluid handling business. Production in that industry actually fell massively below the levels seen in 2009.

**It appears Masterflex outperformed its underlying market in the crisis**

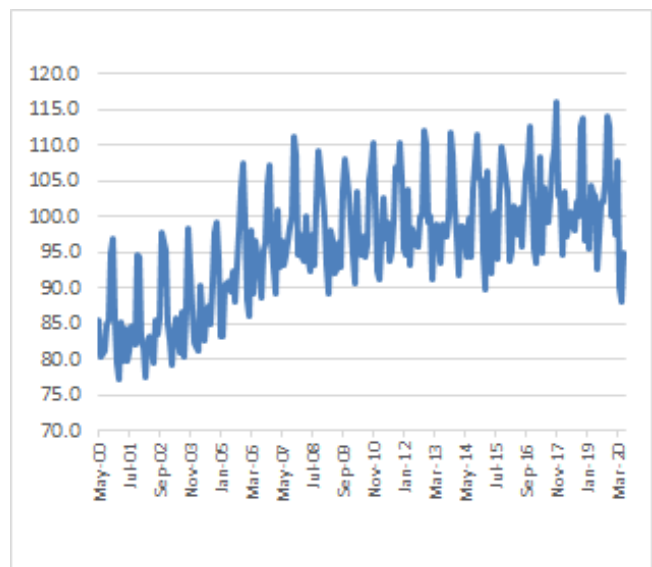
All three sub-sectors recovered significantly until June of the running year from their trough levels in April. Our index made a recent high in Feb20 of 104.8 points to drop to 75.1p in April before it recovered to 87.5 points in June. Although that index should only be seen as an indicative description of the tube- and hose-making sector performance overall, it illustrates how far the output of that industry in Europe is still away from its pre-crisis levels. That industrial background makes Masterflex' performance in H1/20 all the more impressive. A key explanation is certainly its customer mix:

EU Industrial production - Rail & Rolling stock



Sources: Bloomberg, Metzler Research

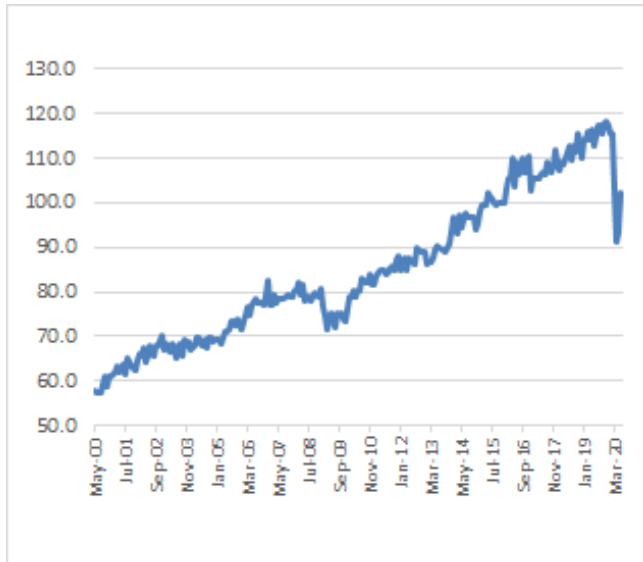
Germany Industrial production - Food



Sources: Bloomberg, Metzler Research

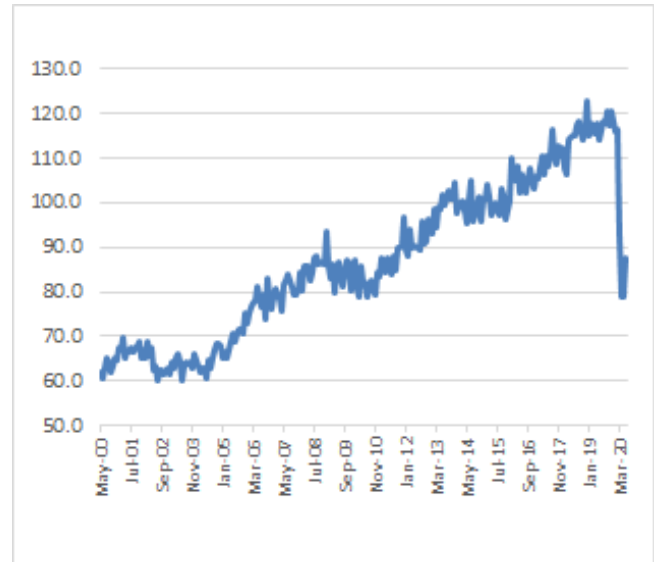
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EU Industrial production - Medical & Dental instruments



Sources: Bloomberg, Metzler Research

EU Industrial production - Aerospace



Sources: Bloomberg, Metzler Research

IFO: German manufacturing business expectations

## Confidence returns



Sources: Bloomberg, Metzler Research

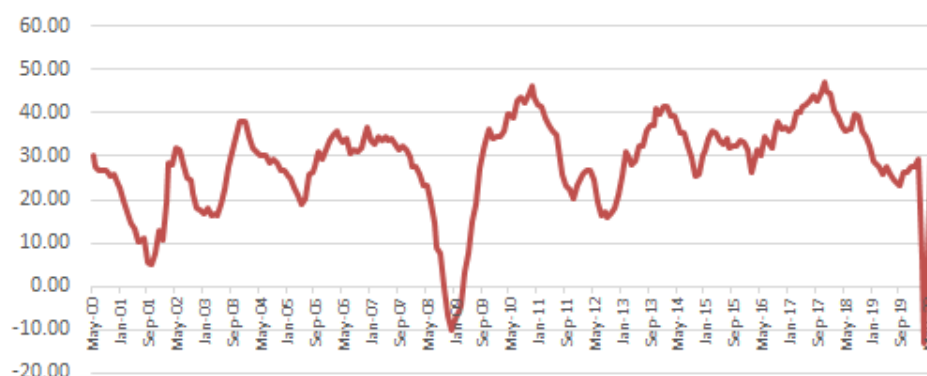
## Combining Masterflex' customer sectors to get a proxy for its end-market development

Our second index comprises the key customer segments of Masterflex. In accordance with its actual sales exposure, business expectations of the German manufacturing sector stand for 69% of the index. Medical equipment makers enter with 17.5%, the aerospace sector with 7.5% and rail- and rolling stock manufacturers with 3.5%.

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## The rebound in sentiment drives our index back up

Weighted composition of Masterflex' customer sectors



Sources: Bloomberg, Metzler Research

The massive rebound in business sentiment within the German manufacturing sector is the key reason why our index for Masterflex' customer industries suggests that the German hose-maker may indeed benefit from a considerable improvement of its production volumes in Q3 compared with Q2 of the running year. Masterflex has an order book visibility of about six weeks. Hence, its order backlog does not yet reflect the sentiment swing among many of its customers in the capital goods sector. However: management indicated as of late that its third quarter business tends towards a further normalization of its business activity.

Looking deeper into the recent performance of some customer groups that are not yet of major relevance to the group, the picture is quite heterogeneous. Unsurprisingly, the output decline in the (German) food-sector did not exceed typical fluctuations of recent years. Manufacturers of medical equipment experienced a significant decline in business, however, the absolute level of activity remained substantially above the levels of the last crisis in 2009. The rail sector production in Europe meanwhile returned to historic highs like before the pandemic.

## Capital goods still dominate the customer mix

### Key characteristics of group end-markets

Customer sector (end-market)	representing % of revenues	Concentration	Price pressure	Regulation/Quality
Capital goods	60.0%	low	medium	medium
MedTech	15.0%	medium	low	high
Aerospace	10.0%	high	low	high
Food & Pharma	10.0%	medium	low	high
Rail	3.0%	high	medium	medium
Auto (OEM/supplier)	2.0%	medium	high	medium

Source: Metzler Research

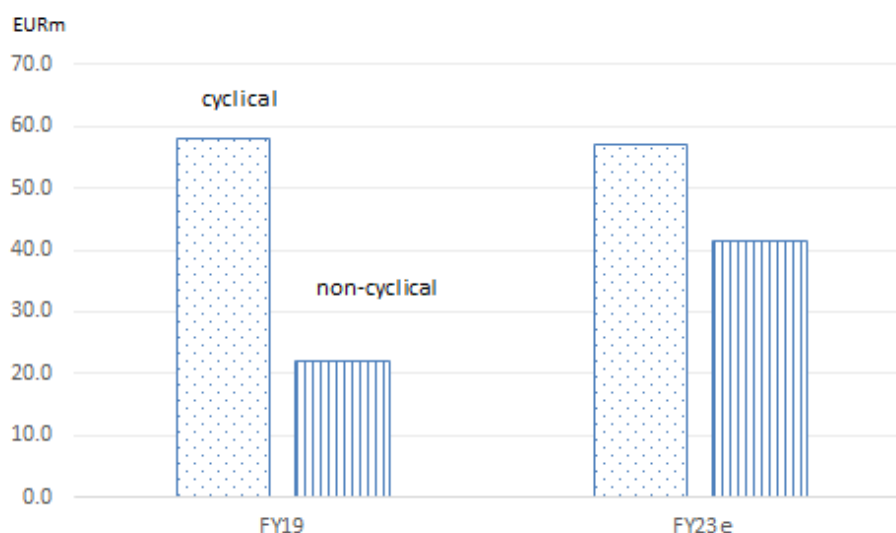
## Expanding the relevance of non-cyclical sectors bears upside from many perspectives

The development in those industries suggests that management's intention to raise Masterflex' exposure to non-cyclical sectors makes a lot of sense. Although the reported (adjusted) EBIT of EUR2.5m for Q2/20 to us is impressive, it could have been even higher if the industry mix change would have been in place al-

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ready at the beginning of the current year. In any case, sales growth with customers from the medical equipment- and food sector is already rising. We consider that mix-change as a highly relevant ingredient for the achievement of Masterflex' profitability targets and as a prerequisite to become more profitable over the coming cycle compared with the one that just came to an end with the pandemic. If our scenario for the upcoming three years proves right, cyclical sales (machinery, auto, aerospace) would remain basically flat vs sales with all other industries would almost double. In other words: the entire top-line expansion of the group would happen in customer sectors with a lower price pressure and growth above GDP, compared with recent years, with a very likely positive impact on profitability.

## Cyclical vs non-cyclical revenues



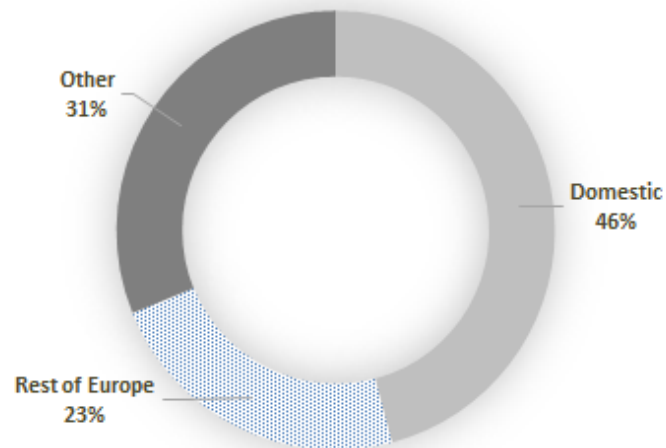
Source: Metzler Research

## Domestic customers dominate the portfolio

The following table shows Masterflex' geographic exposure. Close to 50% of group sales stem from business with domestic customers while the rest of Europe and other regions contributing the remainder. That situation suggests Masterflex has yet to achieve a more global set-up to better capitalize on business opportunities abroad. However, as many German customers' end-products that contain Masterflex' products are being shipped to markets abroad, we consider the geo-exposure statistic as reported not necessarily as an accurate reflection of the group's actual global presence.

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## Geographic sales mix



Sources: Metzler Research, Masterflex

Although the German hose-maker plans to strengthen its presence outside Germany, that diversification does not necessarily require the establishment of further legal entities abroad but might be achieved through closer ties with globally active customers that manufacture their goods in Germany.

## Product portfolio

### Everything but rubber-products

Following a divestment of roughly 50% of group sales in 2008, the Masterflex group focusses entirely on hoses and related connection technologies. Its core competences lay not only in the design of an individualized hose that fits into a given environment of a customer's product. Choosing the right polymer for the hose that has the required material characteristics in terms of elasticity, heat- or abrasion-resistance and finally the connectivity technology to integrate the hose into a machine or production process belong to the group's expertise. Given the fact that Masterflex focusses on individualized products, development expertise is an integral part of the value offered to its customers.

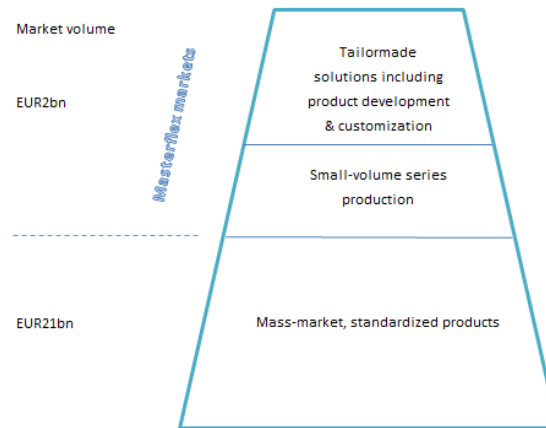
### Product variety limits options to standardize

From an internal perspective, the very high degree of product individualisation requires a highly flexible manufacturing process that allows the production of a large number of different products on the same machines. Complexity and lot-sizes also limit options to automatize processes. A consequence of that product strategy is the group's complete absence from volume markets and the retail business as those markets require high-throughput manufacturing processes, a high degree of standardization and a very limited development expertise.



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## Market segmentation by product category



Sources: Masterflex, Metzler Research

Group brands	APT	MASTERDUCT	FLEIMA - PLASTIC	NOVOPLAST	MATZEN & TIMM	MASTERFLEX
KEY PRODUCT APPLICATION						
PEERS	Optinova, Saint Gobain	Hi-tech Duravent Flexaust	Borla Promepila	Modenplast Raumedic	Hutchinson MST, Flexfab	Norres, Merlett Schauenburg

Sources: Masterflex, Metzler Research

The majority of Masterflex' group competitors are non-listed enterprises of a smaller size compared with the German-based hose maker. Exceptions to that rule are only Hutchinson, Saint Gobain and Schauenburg. We also assume that the biggest peer, Norres, which is located in the same town like Masterflex, realises less revenues per year. Many contenders' activities are also limited to a smaller product spectrum with a geographic focus on Germany and some export markets within Europe. Masterflex position within that competitive environment appears to be solid enough to allow the group to further expand in size and market coverage.

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## **Balance sheet and liquidity**

As of FY19, Masterflex had an equity ratio of 51.5% with a balance sheet total of EUR51.5m and goodwill accounting for EUR9.2m. There are no pension obligations on balance. For FY20e we see the gearing ratio peaking at around 58% before it may decline towards 50% in FY21e. Net debt to EBITDA is likely to rise to 3.8x in FY20e from 2.5x for last year. With the likely rebound in profitability as of next year, we see relative indebtedness declining to a net debt/EBITDA ratio of 2.4x for FY21e. As of FY19, EUR26.3m out of EUR30.8m financial debt carried a maturity of more than one year. The vast majority of group financial debt - around EUR20m - was on balance already before the divestment of non-profitable segments and the concentration on speciality hoses in FY08. Prior to that refocusing, financial debt (FY08) stood at EUR69.1m

Management does not intend to further raise debt in the course of the year, following the generation of a positive net result in H1/20 and a positive cash contribution from working capital. The latter was entirely due to a drop in inventories as a consequence of the decline in revenues. We believe the group to have a sufficient liquidity to digest an expansion in working capital once sales start to return into growth mode. Moreover, Masterflex generated a positive operating cashflow in every consecutive year since 2008. We thus conclude that the group's overall financial status is sufficient to facilitate the group's planned expansion in upcoming years. Any non-organic growth via acquisitions within the next two years could certainly require the group to explore new sources of debt or equity as its free cashflow is most likely not sufficient to fund any such project with internal resources only.

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## Valuation

### Setting a price-target in line with historic valuation

We initiate coverage of Masterflex with a price target of EUR7.50 per MZX share. Masterflex expanded its top-line with 7.6% (CAGR09-18) which is more than twice the level of its underlying industry over the last two cycles. Assuming the company realises its diversification-plan with a greater exposure to less cyclical and price sensitive sectors, growth through the next cycle may even exceed the group's record. Assuming Masterflex meets its guidance of a double-digit EBIT-margin by FY22e, the shares trade at a single-digit P/E (FY22e:9.4x) and an EV/EBITDA of 5.4x. Based on our price target, MZX shares would trade at a P/E of 14.0 which is roughly in line with the shares average P/E of 13.8x of FY15-FY19. The corresponding EV/EBITDA would be 7.3x. vs the FY15-19 average of 7.0x.

We apply cost of capital of 6.0% (WACC) in our DCF-model and a beta of 1.1x to reflect the current debt level of the group with EUR30m financial liabilities and the net debt/EBITDA of 3.8x. MZX' equity ratio stands at 52.7% while gearing incl pension liabilities amounts to 58%. Given where the group stands in the cycle, we consider indebtness and other balance sheet ratios as manageable, even more so as the rebound towards higher earnings and the restructuring process have been initialized.

### Beating the guidance is not unrealistic

Following the avoidance of operating losses in Q2 and a very decent Q1/20, there is a realistic chance for MZX to beat its guidance for the running year. A large part of the planned earnings improvement comes via process optimizations and higher revenues per employee. In other words: internal measures dominate the way back to double digit margins.

### Peer group multiple comparison over the cycles

													avg 07-19		13.8x	
P/E	07	08	09	10	11	12	13	14	15	16	17	18	19	20e	21e	22e
Masterflex	39.2	-6.0	-18.8	2.1	11.6	9.6	20.3	19.5	24.8	15.6	17.4	22.9	21.7	46.6	15.3	9.2
Deutz	26.9	10.0	-	-	7.2	7.3	29.8	18.4	24.1	-	47.0	7.4	7.0	-	11.3	6.8
Krones	21.4	14.3	8.9	28.0	27.7	28.3	25.4	18.2	22.7	18.9	19.5	17.0	13.8	56.6	19.3	12.6
Jungheinrich	14.9	7.3	4.7	12.2	13.8	9.8	15.0	15.7	17.0	19.9	22.3	18.7	8.3	32.9	22.7	18.7
Ringmetall	12.0			31.0	7.4	11.8		17.8	18.5	12.9	14.8	14.2	17.6	19.3	13.5	11.9
<b>AVG ex MZX</b>	<b>18.2</b>	<b>10.0</b>	<b>6.8</b>	<b>28.0</b>	<b>10.6</b>	<b>10.8</b>	<b>25.4</b>	<b>18.0</b>	<b>20.6</b>	<b>18.9</b>	<b>20.9</b>	<b>15.6</b>	<b>11.1</b>	<b>32.9</b>	<b>16.4</b>	<b>12.3</b>
Premium/discount	116%	-160%	-375%	-92%	9%	-11%	-20%	8%	21%	-17%	-17%	47%	97%	42%	-7%	-25%

													avg 07-19		9.0x	
Ev/Ebitda	07	08	09	10	11	12	13	14	15	16	17	18	19	20e	21e	22e
Masterflex	16.4	9.5	10.5	3.8	6.6	6.4	8.1	8.4	9.5	8.2	9.8	10.6	8.6	10.7	7.4	5.3
Deutz	9.3	3.2	4.5	9.1	8.0	3.5	5.1	5.3	4.5	3.9	6.6	3.2	2.2	-	4.3	3.7
Krones	9.2	7.9	4.0	11.0	6.7	5.9	9.3	8.2	9.7	8.1	9.4	9.2	6.5	10.0	7.1	5.7
Jungheinrich	6.1	4.3	3.5	12.6	5.9	4.9	5.7	7.0	7.8	8.7	9.4	8.8	5.2	9.4	8.7	7.8
Ringmetall	5.5			5.9	5.1	6.7	10.2	14.0	7.0	15.6	10.0	9.8	9.8	8.0	6.7	6.2
<b>AVG ex MZX</b>	<b>7.6</b>	<b>4.3</b>	<b>4.0</b>	<b>10.0</b>	<b>6.3</b>	<b>5.4</b>	<b>7.5</b>	<b>7.6</b>	<b>7.4</b>	<b>8.4</b>	<b>9.4</b>	<b>9.0</b>	<b>5.9</b>	<b>9.4</b>	<b>6.9</b>	<b>5.9</b>
Premium/discount	115%	120%	164%	-62%	6%	19%	8%	12%	29%	-2%	4%	18%	46%	14%	7%	-10%

Premium/discount vs peers (P/E, Ev/Ebitda) **115.3%** **-19.8%** **-105.5%** **-77.4%** **7.6%** **3.7%** **-5.9%** **9.9%** **24.9%** **-9.8%** **-6.3%** **32.5%** **71.2%** **27.7%** **0.2%** **-17.5%**

Sources: Bloomberg, Metzler Research

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## Sales and EBITDA margins over 16 years

Sales	07	08	09	10	11	12	13	14	15	16	17	18	19	20e	21e	22e
Masterflex	88.9	88.3	88.4	46.1	53.0	55.0	57.9	62.5	64.1	66.5	74.7	77.2	80.0	71.0	77.4	84.0
Deutz	1,524	1,495	861	1,189	1,529	1,292	1,453	1,530	1,247	1,260	1,480	1,779	1,833	1,841	1,263	1,579
Krones	2,156	2,381	1,865	2,173	2,480	2,664	2,815	2,953	3,174	3,391	3,691	3,854	3,959	3,313	3,535	3,818
Jungheinrich	2,001	2,145	1,676	1,816	2,116	2,270	2,289	2,498	2,754	3,085	3,435	3,796	3,971	3,605	3,916	4,181
Ringmetall	49			41	43	48	47	66	67	94	102	111	121	121	122	130
<b>Ebitda Margins</b>	<b>07</b>	<b>08</b>	<b>09</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20e</b>	<b>21e</b>	<b>22e</b>
Masterflex	14.9%	11.8%	15.9%	19.8%	18.8%	18.5%	15.1%	14.7%	12.0%	13.3%	13.1%	12.2%	11.4%	9.4%	12.1%	14.8%
Deutz	10.7%	5.4%	4.1%	10.6%	10.7%	10.0%	9.5%	9.7%	10.3%	9.4%	9.4%	8.7%	9.1%	0.2%	13.4%	12.5%
Krones	8.6%	9.4%	5.8%	9.3%	8.2%	6.9%	8.8%	9.9%	10.2%	9.5%	8.9%	9.5%	6.6%	5.9%	7.7%	9.0%
Jungheinrich	13.6%	13.7%	8.7%	13.0%	14.0%	15.2%	15.0%	15.2%	15.6%	15.6%	15.9%	15.8%	16.9%	15.6%	15.4%	16.2%
Ringmetall	5.7%			10.1%	9.8%	6.0%	7.3%	10.5%	7.6%	11.8%	11.2%	8.8%	8.2%	8.8%	9.6%	10.7%
<b>AVG ex MZX</b>	<b>9.7%</b>	<b>9.5%</b>	<b>6.2%</b>	<b>10.7%</b>	<b>10.7%</b>	<b>9.5%</b>	<b>10.1%</b>	<b>11.3%</b>	<b>10.9%</b>	<b>11.6%</b>	<b>11.4%</b>	<b>10.7%</b>	<b>10.2%</b>	<b>7.6%</b>	<b>11.5%</b>	<b>12.1%</b>

Sources: Bloomberg, Metzler Research

## Multiples based on target price

	15	16	17	18	19	20e	21e	22e
<b>Average FY15-19</b>					<b>13.8</b>			
<b>EPS</b>	0.26	0.40	0.46	0.36	0.26	0.10	0.31	0.52
<b>Implicit P/E</b>	<b>24.8x</b>	<b>15.6x</b>	<b>17.4x</b>	<b>22.9x</b>	<b>21.7x</b>	<b>72.8x</b>	<b>23.9x</b>	<b>14.4x</b>
<b>EU peers</b>	20.6x	18.9x	20.9x	15.6x	11.1x	32.9x	16.4x	12.3x
<b>discount</b>	21%	-17%	-17%	47%	97%	122%	46%	17%
<b>Average FY15-19</b>					<b>9.0</b>			
<b>Ev</b>	72.9	72.4	95.6	100.0	78.2	97.2	95.6	92.3
<b>Implicit Ev/Ebitda</b>	<b>9.5x</b>	<b>8.2x</b>	<b>9.8x</b>	<b>10.6x</b>	<b>8.6x</b>	<b>14.6x</b>	<b>10.2x</b>	<b>7.4x</b>
<b>EU peers</b>	7.4x	8.4x	9.4x	9.0x	5.9x	9.4x	6.9x	5.9x
<b>discount</b>	29%	-2%	4%	18%	46%	55%	47%	25%

Sources: Bloomberg, Metzler Research

# company report

## DCF model & Sensitivity

	FY19	FY20e	FY21e	FY22e	FY23e	FY24e	FY25e	FY26e	TV Year
Year	0	1	2	3	4	5	6	7	
Discounting period	0.01	1.01	2.01	3.01	4.01	5.01	6.01	7.01	8.01
Sales	80.0	71.0	77.4	84.0	88.2	92.6	97.3	102.1	105.5
Sales growth (%)		-11.3	9.1	8.5	5.0	5.0	5.0	5.0	3.3
Operating margin (%)	5.7	3.6	7.1	10.1	7.5	7.5	7.5	7.5	4.0
EBIT	4.5	2.6	5.5	8.5	6.6	6.9	7.3	7.7	4.2
Taxes	0.8	0.5	1.4	2.4	2.0	2.1	2.2	2.3	1.3
Tax rate (%)	24.9	32.0	32.0	32.0	30.0	30.0	30.0	30.0	30.0
Depreciation	4.6	4.1	3.9	3.9	3.1	3.2	3.4	3.6	3.7
Amortisation (ppa etc.)									
Gross cash flow	6.6	4.1	7.6	9.6	7.7	8.1	8.5	8.9	6.6
Capex	2.21	3.26	3.10	3.36	3.1	3.2	3.4	3.6	3.7
Change in working capital	-1.7	-2.1	-0.4	-0.5					
Free cash flow	2.8	-1.2	4.1	5.7	4.6	4.9	5.1	5.4	3.0
Discounted free cash flow	2.8	-1.1	3.6	4.8	3.7	3.6	3.6	3.6	
Sum of DCF	24								
TV	70								
Net Debt	23								
Fair' Equity value	72								
Number of shares	9.6								
<b>Fair' value per share</b>	<b>7.5</b>								

Sales growth (%), years 3-7	5.0	Capex/sales (%), TV year	1.0	WACC				
Sales growth (%), TV year	3.3	Depreciation/Capex (%)	100	Cost of debt (%)	3.2			
Operating margin (%), years 3-7	7.5	Beta	1.1	Cost of equity (%)	8.2			
Operating margin (%), TV year	4.0	LT debt interest rate (%)	4.5	Equity	42.0			
Tax rate (%), years 3-7	30.0	Risk Free Rate (%)	1.0	Financial Debt	30.8			
Capex/Sales (%), years 3-7	3.5	Market Risk Premium (%)	6.5	Total capital	72.9			
				WACC (%)	6.0			
Sales CAGR09-18	7.61%							

### Sensitivity analysis

Sensitivity of DCF value				Market		TV		TV	
per share to a +/- 5% change				risk	DCF	sales	DCF	Ebit	DCF
in key assumptions				premium	value	growth	value	margin	value
	-5%	1.05	8.1	6.18%	8.2	3.15%	7.0	3.80%	7.1
<b>base case</b>		<b>1.10</b>	<b>7.5</b>	<b>6.50%</b>	<b>7.5</b>	<b>3.32%</b>	<b>7.5</b>	<b>4.00%</b>	<b>7.5</b>
	+5%	1.16	6.8	6.83%	6.8	3.49%	8.0	4.20%	7.8

Sources: Bloomberg, Metzler Research

# company report

## Balance sheet

(in EUR m)	2017	%	2018	%	2019	%	2020e	%	2021e	%	2022e	%
<b>Assets</b>	<b>73</b>	<b>20.8</b>	<b>75</b>	<b>3.0</b>	<b>82</b>	<b>8.5</b>	<b>83</b>	<b>1.2</b>	<b>85</b>	<b>2.6</b>	<b>88</b>	<b>4.3</b>
<b>Fixed assets</b>	<b>43</b>	<b>27.2</b>	<b>45</b>	<b>4.2</b>	<b>47</b>	<b>5.5</b>	<b>49</b>	<b>4.1</b>	<b>50</b>	<b>2.5</b>	<b>51</b>	<b>2.4</b>
Intangible fixed assets	11	149.7	13	11.5	13	4.7	14	5.2	14	5.1	15	4.8
Goodwill	9	182.0	9	0.0	9	0.0	9	0.0	9	0.0	9	0.0
Other intangible assets	2	64.9	3	63.3	4	17.5	5	17.4	5	15.2	6	13.2
Tangible assets	31	8.2	32	1.5	34	5.9	35	3.6	36	1.4	36	1.4
Technical plant and equipment	11	20.2	12	11.3	12	3.8	12	-1.9	14	12.5	14	0.0
Financial assets	0	29.7	0	7.6	0	-27.6	0	37.0	0	0.0	0	0.0
Other financial assets	0	n.a.	0	-27.5	0	-6.9	0	22.2	0	0.0	0	0.0
<b>Current assets</b>	<b>29</b>	<b>13.5</b>	<b>30</b>	<b>5.1</b>	<b>34</b>	<b>13.5</b>	<b>33</b>	<b>-2.7</b>	<b>34</b>	<b>2.9</b>	<b>37</b>	<b>7.8</b>
Inventories	15	12.3	17	9.4	19	11.8	19	2.0	19	1.1	19	-1.0
Receivables and other assets	7	8.8	8	14.9	8	-5.7	9	18.0	10	5.4	10	7.1
Cash and cash items	5	33.6	4	-18.1	7	58.1	4	-38.7	4	5.8	7	47.5
Deferred taxes	2	0.6	1	-66.9	0	-22.1	0	-19.6	0	0.0	0	-68.8
<b>Shareholders' equity and liabilities</b>	<b>73</b>	<b>20.8</b>	<b>75</b>	<b>3.0</b>	<b>82</b>	<b>8.5</b>	<b>82</b>	<b>0.7</b>	<b>84</b>	<b>2.6</b>	<b>88</b>	<b>4.3</b>
<b>Shareholders' equity</b>	<b>37</b>	<b>30.3</b>	<b>40</b>	<b>7.6</b>	<b>42</b>	<b>4.5</b>	<b>44</b>	<b>3.6</b>	<b>46</b>	<b>6.5</b>	<b>51</b>	<b>10.7</b>
Subscribed capital	10	10.1	10	0.0	10	0.0	10	0.0	10	0.0	10	0.0
Reserves	30	42.5	32	9.1	34	5.7	35	2.9	38	8.5	43	13.1
Minority interests	-0	-2.4	-0	-46.2	-1	-24.3	-1	12.0	-1	0.0	-1	0.0
<b>Outside capital</b>	<b>36</b>	<b>12.2</b>	<b>35</b>	<b>-1.7</b>	<b>40</b>	<b>13.1</b>	<b>39</b>	<b>-2.3</b>	<b>38</b>	<b>-1.7</b>	<b>37</b>	<b>-3.5</b>
<b>Liabilities</b>	<b>35</b>	<b>18.4</b>	<b>34</b>	<b>-2.0</b>	<b>39</b>	<b>15.5</b>	<b>38</b>	<b>-2.3</b>	<b>38</b>	<b>-1.8</b>	<b>36</b>	<b>-3.5</b>
Financial debt	26	11.1	26	3.1	31	16.4	30	-2.7	29	-4.3	28	-3.9
Accounts payable, trade	2	-12.0	2	7.0	2	7.0	2	-2.2	2	13.6	2	0.0
Other liabilities	5	73.9	4	-15.9	5	17.5	5	-0.7	5	3.9	5	-5.6
Deferred taxes liabilities	2	87.7	1	-41.6	1	0.1	1	0.8	1	8.9	1	7.4
<b>Balance sheet total</b>	<b>73</b>	<b>20.8</b>	<b>75</b>	<b>3.0</b>	<b>82</b>	<b>8.5</b>	<b>83</b>	<b>1.2</b>	<b>85</b>	<b>2.6</b>	<b>88</b>	<b>4.3</b>

Sources: Refinitiv, Metzler Research

# company report

## Profit & loss account

(in EUR m)	2017	%	2018	%	2019	%	2020e	%	2021e	%	2022e	%
Sales	75	12.3	77	3.4	80	3.5	71	-11.3	77	9.1	84	8.5
Change in finished goods and work in progress	1	42.6	2	123.7	0	-76.5	0	13.1	0	0.0	0	0.0
Own work capitalised	0	n.a.	0	n.a.	0	n.a.	0	n.a.	0	n.a.	0	n.a.
<b>Total output</b>	<b>76</b>	<b>12.6</b>	<b>79</b>	<b>4.8</b>	<b>80</b>	<b>1.6</b>	<b>71</b>	<b>-11.1</b>	<b>78</b>	<b>9.1</b>	<b>85</b>	<b>8.4</b>
Other operating income	1	-50.8	1	22.1	1	85.0	1	-14.1	1	-22.0	1	-13.2
Operating expenses	69	11.9	74	6.1	77	4.6	70	-9.3	73	4.7	77	4.8
Cost of materials	24	16.9	25	3.8	26	2.9	22	-13.4	24	8.5	27	9.5
Personnel expenses	29	7.6	31	8.0	33	6.1	30	-7.7	31	1.4	31	0.5
Depreciation and amortization	3	17.2	3	5.0	5	37.6	4	-10.5	4	-5.9	4	2.0
Write-downs on intang. fixed as-sets and tang. assets	3	17.2	3	5.0	5	37.6	4	-10.5	4	-5.9	4	2.0
Other operating expenses	13	11.7	14	6.5	14	-3.5	13	-4.7	14	9.1	15	6.7
<b>EBIT</b>	<b>7</b>	<b>8.3</b>	<b>6</b>	<b>-7.6</b>	<b>5</b>	<b>-25.6</b>	<b>3</b>	<b>-43.7</b>	<b>6</b>	<b>116.4</b>	<b>8</b>	<b>53.3</b>
Financial result	-1	22.5	-1	10.3	-1	-21.9	-1	14.8	-1	0.0	-1	0.0
Income from investments	0	n.a.	0	n.a.	0	n.a.	0	n.a.	0	n.a.	0	n.a.
Interest income (net)	-1	11.0	-1	10.9	-1	-24.0	-1	16.5	-1	0.0	-1	0.0
<b>Result of ordinary activities</b>	<b>5</b>	<b>18.5</b>	<b>5</b>	<b>-7.0</b>	<b>3</b>	<b>-35.5</b>	<b>1</b>	<b>-55.2</b>	<b>4</b>	<b>204.2</b>	<b>7</b>	<b>66.5</b>
<b>EBT</b>	<b>5</b>	<b>18.5</b>	<b>5</b>	<b>-7.0</b>	<b>3</b>	<b>-35.5</b>	<b>1</b>	<b>-55.2</b>	<b>4</b>	<b>204.2</b>	<b>7</b>	<b>66.5</b>
Taxes on income	-1	8.7	-2	-67.6	-1	54.2	-0	42.4	-1	-204.2	-2	-66.5
Tax rate (%)	-19.5	23.0	-35.1	-80.1	-24.9	28.9	-32.0	-28.4	-32.0	0.0	-32.0	0.0
<b>Net income</b>	<b>4</b>	<b>27.7</b>	<b>3</b>	<b>-25.0</b>	<b>2</b>	<b>-25.4</b>	<b>1</b>	<b>-59.4</b>	<b>3</b>	<b>204.2</b>	<b>5</b>	<b>66.5</b>
Minority interests	0	-87.7	0	n.m.	0	-42.0	0	-100.0	0	n.a.	0	n.a.
Minority rate (%)	0.2	-90.4	4.8	n.m.	3.7	-22.3	0.0	-100.0	0.0	n.a.	0.0	n.a.
<b>Net Income after minorities</b>	<b>4</b>	<b>25.6</b>	<b>3</b>	<b>-21.5</b>	<b>3</b>	<b>-26.2</b>	<b>1</b>	<b>-60.9</b>	<b>3</b>	<b>204.2</b>	<b>5</b>	<b>66.5</b>
Unappropriated consolidated net income	0	n.a.	0	n.a.	0	n.a.	0	n.a.	0	n.a.	0	n.a.
<b>Adjustment calculation</b>												
Net Income after minorities	4	25.6	3	-21.5	3	-26.2	1	-60.9	3	204.2	5	66.5
Adjustments of net income	0	n.a.	0	n.a.	0	n.a.	0	n.a.	0	n.a.	0	n.a.
Adjustment rate (%)	0.0	n.a.	0.0	n.a.	0.0	n.a.	0.0	n.a.	0.0	n.a.	0.0	n.a.
<b>Adj. net income after minorities</b>	<b>4</b>	<b>25.6</b>	<b>3</b>	<b>-21.5</b>	<b>3</b>	<b>-26.2</b>	<b>1</b>	<b>-60.9</b>	<b>3</b>	<b>204.2</b>	<b>5</b>	<b>66.5</b>
Number of shares outstanding	9	8.0	10	2.0	10	0.0	10	0.0	10	0.0	10	0.0
EPS (EUR)	0.46	16.2	0.36	-23.0	0.26	-26.2	0.10	-60.9	0.31	204.2	0.52	66.5
EPS adj. (EUR)	0.46	16.2	0.36	-23.0	0.26	-26.2	0.10	-60.9	0.31	204.2	0.52	66.5

Sources: Refinitiv, Metzler Research

# company report

## Cash flow/ratios/valuation

	2017	%	2018	%	2019	%	2020e	%	2021e	%	2022e	%
<b>Cash Flow/ Net Debt (in EUR m)</b>												
Gross Cash Flow	9	14.0	8	-12.1	8	8.5	6	-25.5	8	28.7	10	26.0
Increase in working capital	-2	-353.7	-2	19.2	-2	16.0	-2	-22.9	-0	80.6	-0	-25.0
Capital expenditures	-4	n.a.	-4	n.a.	-2	n.a.	-3	n.a.	-3	n.a.	-3	n.a.
D+A/Capex (%)	-81.0	n.a.	-93.8	n.a.	-208.4	n.a.	-126.1	n.a.	-125.0	n.a.	-117.5	n.a.
Free cash flow (Metzler definition)	2	297.1	2	-9.1	4	110.3	1	-80.3	4	412.7	6	38.3
Free cash flow yield (%)	2.8	n.a.	3.1	n.a.	10.3	n.a.	1.9	n.a.	9.5	n.a.	13.1	n.a.
Dividend paid	0	n.a.	0	n.a.	0	n.a.	-1	n.a.	-1	-42.9	-1	-50.0
Free cash flow (post dividend)	2	297.1	2	-9.1	4	110.3	2	-65.1	5	251.9	8	40.3
Net Debt incl. Provisions	20	7.9	21	9.5	23	8.3	25	8.2	23	-6.3	20	-14.1
Gearing (%)	52.3	n.a.	53.2	n.a.	55.2	n.a.	57.6	n.a.	50.7	n.a.	39.3	n.a.
Net debt/EBITDA	2.0	n.a.	2.3	n.a.	2.5	n.a.	3.8	n.a.	2.5	n.a.	1.6	n.a.
<b>Ratios (in %)</b>												
<b>Liquidity</b>												
Quick ratio	98.3	n.a.	102.0	n.a.	141.9	n.a.	130.8	n.a.	131.9	n.a.	165.9	n.a.
Current ratio	209.9	n.a.	228.4	n.a.	311.9	n.a.	305.1	n.a.	300.3	n.a.	341.8	n.a.
Pay-out ratio	0.0	n.a.	0.0	n.a.	0.0	n.a.	67.9	n.a.	31.9	n.a.	28.7	n.a.
<b>Balance sheet structure</b>												
Equity/total assets	51.3	n.a.	53.5	n.a.	51.5	n.a.	52.7	n.a.	54.7	n.a.	58.1	n.a.
Equity to fixed assets	88.2	n.a.	91.4	n.a.	90.7	n.a.	90.1	n.a.	93.5	n.a.	101.0	n.a.
Long-term capital to total assets	76.3	n.a.	78.6	n.a.	83.8	n.a.	83.4	n.a.	83.1	n.a.	84.3	n.a.
Long-term capital to fixed assets and inventories	96.0	n.a.	96.5	n.a.	104.1	n.a.	101.4	n.a.	101.5	n.a.	105.9	n.a.
Liabilities to equity (leverage)	93.0	n.a.	84.8	n.a.	93.7	n.a.	88.4	n.a.	81.5	n.a.	71.0	n.a.
<b>Profitability/efficiency</b>												
Working capital to sales	26.8	n.a.	28.5	n.a.	29.7	n.a.	36.4	n.a.	33.8	n.a.	31.8	n.a.
EBIT margin	8.8	n.a.	7.9	n.a.	5.7	n.a.	3.6	n.a.	7.1	n.a.	10.1	n.a.
EBITDA margin	13.1	n.a.	12.2	n.a.	11.4	n.a.	9.4	n.a.	12.1	n.a.	14.8	n.a.
Net ROS	5.9	n.a.	4.4	n.a.	3.2	n.a.	1.4	n.a.	3.9	n.a.	6.0	n.a.
Cash flow margin	11.7	n.a.	9.9	n.a.	10.4	n.a.	8.7	n.a.	10.3	n.a.	12.0	n.a.
ROE (after Tax/Min.)	13.1	n.a.	8.7	n.a.	6.1	n.a.	2.3	n.a.	6.6	n.a.	10.2	n.a.
<b>Productivity</b>												
Average number of employees ('000)	0.6	6.8	0.7	7.3	0.7	-1.9	0.6	-12.9	0.6	1.9	0.6	3.3
Sales per employee (EUR '000)	116.3	5.1	112.1	-3.6	118.3	5.5	120.5	1.8	129.1	7.1	135.5	5.0
EBIT per employee (EUR '000)	10.3	1.4	8.9	-13.9	6.7	-24.1	4.3	-35.4	9.2	112.4	13.7	48.3
<b>Valuation</b>												
PER adj.	18.9	n.a.	19.8	n.a.	17.0	n.a.	47.7	n.a.	15.7	n.a.	9.4	n.a.
PBV	2.2	n.a.	1.7	n.a.	1.0	n.a.	1.1	n.a.	1.0	n.a.	0.9	n.a.
EV/EBITDA	10.4	n.a.	9.5	n.a.	7.2	n.a.	10.8	n.a.	7.5	n.a.	5.4	n.a.
EV/EBIT	15.5	n.a.	14.6	n.a.	14.6	n.a.	28.3	n.a.	12.8	n.a.	8.0	n.a.
Dividend yield (%)	0.0	n.a.	0.0	n.a.	0.0	n.a.	1.4	n.a.	2.0	n.a.	3.0	n.a.

Sources: Refinitiv, Metzler Research



# company report

## Disclosures

### Recommendation history

Recommendations for each financial instrument or issuer - mentioned in this document - published by Metzler in the past twelve months

Date of dissemination	Metzler recommendation *		Current price **	Price target *	Author ***
	Previous	Current			
<b>Issuer/Financial Instrument (ISIN): Jungheinrich (DE0006219934)</b>					
28.07.2020	Sell	Hold	26.26 EUR	26.00 EUR	Bauer, Stephan
15.05.2020	Sell	Sell	14.85 EUR	13.00 EUR	Bauer, Stephan
14.05.2020	Sell	Sell	15.05 EUR	13.00 EUR	Bauer, Stephan
17.03.2020	Hold	Sell	12.88 EUR	10.50 EUR	Bauer, Stephan
<b>Issuer/Financial Instrument (ISIN): Krones (DE0006335003)</b>					
07.05.2020	Hold	Hold	54.30 EUR	53.00 EUR	Bauer, Stephan
18.02.2020	Buy	Hold	71.80 EUR	73.00 EUR	Bauer, Stephan

\* Effective until the price target and/or investment recommendation is updated (FI/FX recommendations are valid solely at the time of publication)

\*\* XETRA trading price at the close of the previous day unless stated otherwise herein

\*\*\* All authors are financial analysts

### Masterflex

17. Metzler and/or a company affiliated with Metzler had reached an agreement on the compilation of the investment analysis with the analysed company. Prior to publication of the financial analysis, the provider gives the issuer a one-off opportunity to comment (comparison of facts in accordance with the DVFA Code) within the regulatory framework to avoid quality defects.

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