

<b>Buy</b> <b>EUR 6.50</b>	<b>Value Indicators:</b> EUR Residual income model: 6.51	<b>Warburg ESG Risk Score: 2.3</b> ESG Score (MSCI based): 2.0 Balance Sheet Score: 5.0 Market Liquidity Score: 0.0	<b>Description:</b> Multitude is a financial services company providing small-ticket financing
	<b>Market Snapshot:</b> EUR m Market cap: 58 No. of shares (m): 22 EV: -68 Freefloat MC: 26 Ø Trad. Vol. (30d): 14.50 th	<b>Shareholders:</b> Freefloat: 44.12 % Jorma Jokela: 55.21 % Treasury shares: 0.67 %	<b>Key Figures (WRE):</b> 2022e Beta: 1.4 Price / Book: 0.3 x Equity Ratio: 21 %
Price: EUR 2.70 Upside: 140.7 %			

## Small-ticket financing at a discount; Initiation with Buy

Multitude is a provider of small-ticket financing to consumers and small and medium-sized companies. The company offers a variety of consumer products which include a digital bank account and wallet, credit cards and private loans within its segment SweepBank and private loans and revolving facilities in the Ferratum segment. In its segment CapitalBox, the company provides small-ticket loans up to EUR 350k to corporate customers. Multitude puts special emphasis on its digital business processes which ensure a high degree of efficiency and convenience for the customer. Depending on the product, the company is able to pay out loans within minutes of application, which represents a key advantage, especially over traditional banks.

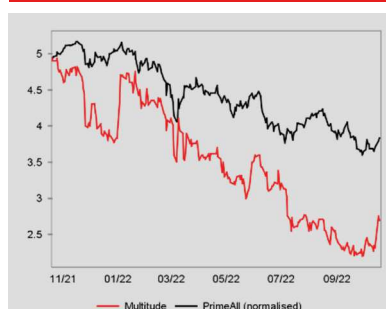
In the past, the company focused on microloans but Multitude has diversified its loan portfolio in recent years and re-focused on slightly larger ticket sizes with longer maturities. As a result, the average loan size per active customer increased from EUR 265 in 2016 to EUR 1,109 in 2021. Simultaneously, the loss ratio, defined as impairments per average loan volume decreased from 33% to 17.9% in the respective period. This trend is expected to continue, indicating a constant improvement in portfolio quality.

During the pandemic, Multitude was rather restrictive as regards approving new loans and reduced costs accordingly. However, the loan volume in 2020 declined for the first time since the IPO in 2015, resulting in dwindling revenues for 2020 and 2021. While this happened at a faster speed than cost reductions, Multitude recorded a negative net income in 2021, also for the first time since the IPO.

Our investment case is based on the constantly improving portfolio quality and the further diversification of the business model. This should then lead to:

- Total loan portfolio growth of around 20% for the next three years
- Revenue 2021-24 CAGR of 5.9% due to a declining interest margin as a result of constantly improving portfolio quality
- Further portfolio quality improvement should lead to rather flat development of loan losses as is expected for the remaining cost positions
- The aforementioned effects should result in strong net income growth and RoE is expected to reach 10% by 2025

Overall, our residual income model yields a fair value of EUR 141m, which is still below the book value of equity of EUR 169m as of 2021. This is basically because Multitude is expected to only earn its estimated cost of capital of 10.6% from 2026e onwards. However, the current valuation at a P/B multiple of 0.29x does not reflect the good prospects of the company after a phase of restructuring and the pandemic. Considering the progress made in improving the portfolio quality, which increases the reliability of returns, and the implemented cost discipline, a short-term improvement in profitability appears obvious. Thus, the share should soon start to get closer to valuation levels seen previous to the pandemic. Furthermore, Multitude was able to show much higher growth rates and profitability in the past, resulting in significantly higher multiples. If the company exceeds our estimates and returns to historic profitability, there is a good chance of a revaluation of the shares. Overall, we initiate coverage with a Buy rating at a PT of EUR 6.50.

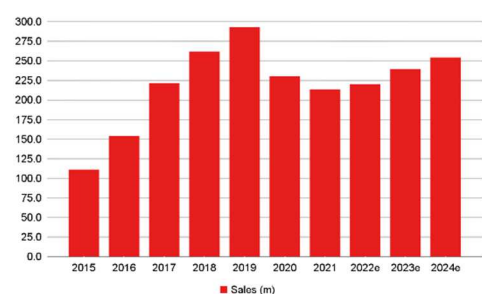


<b>Rel. Performance vs PrimeAll:</b>	
1 month:	16.0 %
6 months:	-11.5 %
Year to date:	-5.5 %
Trailing 12 months:	-21.9 %

**Company events:**  
17.11.22 Q3

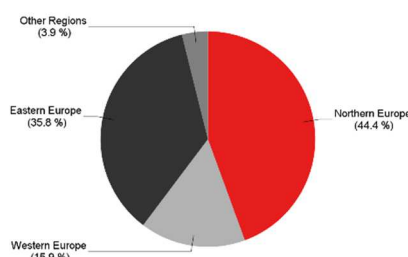
FY End: 31.12. in EUR m	CAGR (21-24e)	2018	2019	2020	2021	2022e	2023e	2024e
<b>Sales</b>	6.0 %	262	293	230	214	220	240	254
Change Sales yoy		18.3 %	11.8 %	-21.4 %	-7.3 %	3.0 %	8.9 %	6.1 %
Gross profit margin		61.3 %	57.9 %	54.7 %	59.6 %	59.5 %	60.8 %	62.5 %
<b>EBITDA</b>	20.5 %	43	56	42	39	44	55	69
Margin		16.4 %	19.2 %	18.2 %	18.4 %	19.9 %	22.8 %	27.0 %
<b>EBIT</b>	28.4 %	38	46	29	24	28	37	51
Margin		14.4 %	15.5 %	12.4 %	11.2 %	12.7 %	15.6 %	19.9 %
<b>Net income</b>	-	19	24	0	-3	2	7	17
<b>EPS</b>	-	0.89	1.10	0.02	-0.12	0.08	0.34	0.79
<b>EPS adj.</b>	-	0.89	1.10	0.02	-0.12	0.08	0.34	0.79
<b>DPS</b>	-	0.18	0.11	0.00	0.00	0.00	0.03	0.20
Dividend Yield		0.9 %	1.1 %	n.a.	n.a.	n.a.	1.1 %	7.4 %
<b>FCFPS</b>		-2.62	0.31	5.93	2.79	-2.96	-2.48	-1.29
<b>FCF / Market cap</b>		-13.3 %	3.1 %	102.8 %	53.9 %	-109.7 %	-91.9 %	-47.9 %
<b>EV / Sales</b>		0.9 x	0.3 x	n.a.	n.a.	n.a.	n.a.	n.a.
<b>EV / EBITDA</b>		5.4 x	1.5 x	n.a.	n.a.	n.a.	n.a.	n.a.
<b>EV / EBIT</b>		6.1 x	1.9 x	n.a.	n.a.	n.a.	n.a.	n.a.
<b>P / E</b>		22.1 x	9.1 x	288.1 x	n.a.	33.8 x	7.9 x	3.4 x
<b>P / E adj.</b>		22.1 x	9.1 x	288.1 x	n.a.	33.8 x	7.9 x	3.4 x
<b>FCF Potential Yield</b>		17.3 %	61.7 %	-113.1 %	-769.8 %	-62.5 %	-60.1 %	-53.8 %
<b>Net Debt</b>		-70	-74	-73	-116	-126	-144	-176
<b>ROCE (NOPAT)</b>		10.2 %	9.8 %	5.4 %	1.8 %	4.1 %	4.7 %	5.4 %
<b>Guidance:</b>		2022: EBIT of EUR 30m						

**Sales development**  
in EUR m



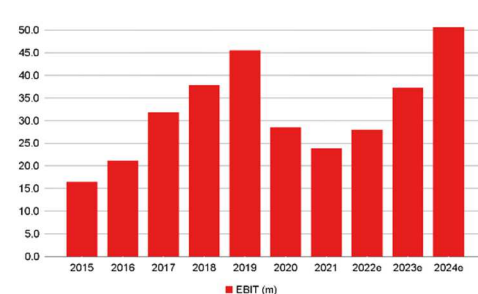
Source: Warburg Research

**Sales by regions**  
2021; in %



Source: Warburg Research

**EBIT development**  
in EUR m



Source: Warburg Research

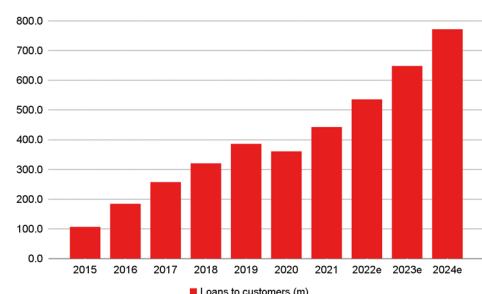
**Company Background**

- Multitude specializes in automated banking processes in the microfinance sector, using a centralized technology infrastructure
- The group has an EU banking license and offers financial services through the three independent business segments "Ferratum", "CapitalBox" and "SweepBank".
- Ferratum is Multitude's legacy business and focuses on microloans for individuals
- CapitalBox provides customized financing for SMEs
- Sweepbank is a digital wallet and mobile bank, providing customers with a bank account, overdraft facilities as well as integrated e-commerce services

**Competitive Quality**

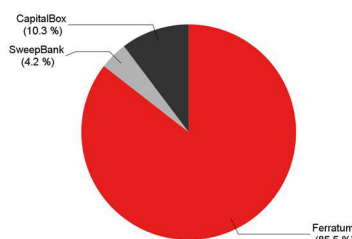
- Multitude's fast application processes and internal flexibility provide a key advantage over competitors like traditional banks
- Proven risk management infrastructure compared to neo-banks
- EU banking license, which allows Multitude to operate in countries where one is required (i.e. DE, FR, IT) and use deposit funding for further expansion
- Streamlined business divisions and digital platform allow for cross-benefits and agility in a growing market environment

**Loan Portfolio development**  
in EUR m



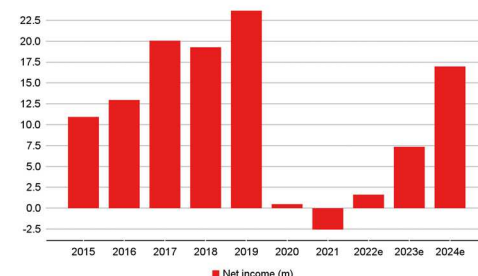
Source: Warburg Research

**Sales by segments**  
2021; in %



Source: Warburg Research

**Net income development**  
in EUR m



Source: Warburg Research

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## Summary of Investment Case

### Investment triggers

- After a phase of restructuring its business model towards higher loan qualities in the portfolio, Multitude should be able to reap the rewards of this development over the next years.
- With the RoE turning negative to -1.7% in 2021, Multitude marked a historic negative record which is more than reflected in the current cheap valuation of a P/B multiple of 0.29x. However, there are positive medium-term prospects for sustainable returns that at least meet the cost of capital, which calls for a revaluation of the share.
- After the pandemic, which had a severe impact on the company with two consecutive years of declining revenues, Multitude should be able to return to sustainable high single-digit growth with a streamlined cost base.

### Valuation

- Our PT of EUR 6.50 is based on a residual income model.
- The share currently trades at 0.29x book value, whereas levels above 2x were seen before the pandemic and the share traded in a range between 0.6x and 1.1x until late 2021. Despite showing positive trends when it comes to portfolio quality and loss ratios, Multitude is trading at historical lows. Changes in interest rates should not have any substantial negative impact due to the short duration of the loan portfolio.

### Growth

- **High scalability of the digital business model** and its cross-selling prospects are driving the growth of the three tribes. Internationalisation and further market penetration support growth. Additional revenue potential lies in partnerships with e-commerce companies and retailers.
- Our model reflects total **loan portfolio growth of around 20% per annum** for the next three years. With the constant improvement in risk optimisation and the changing product mix, the interest margin should continue to show a declining trend. Therefore, revenue growth is expected to be proportionately slower at a 2021-24e CAGR of 5.99%.
- Resulting from strict cost discipline and economies of scale, **EBIT is anticipated to grow at a relatively high rate** and a 2021-24e CAGR of 28.4%.
- Finally, RoE is assumed to improve significantly from -1.7% in 2021 to 8.7% in 2024e and reach the estimated cost of capital of 10.6% from 2026e onwards.





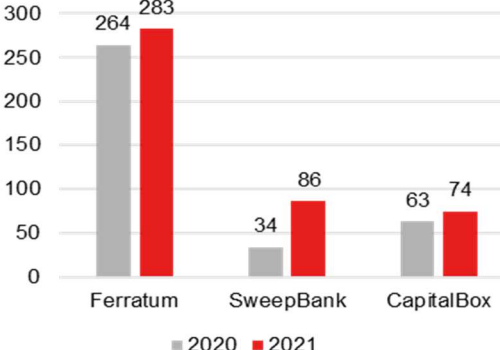
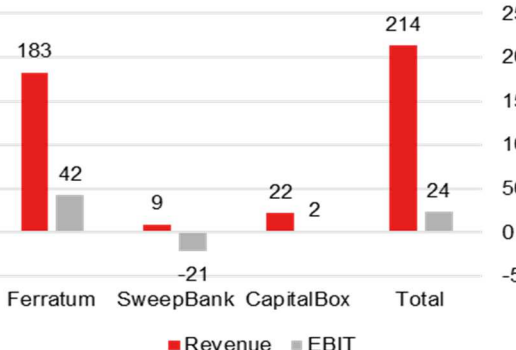
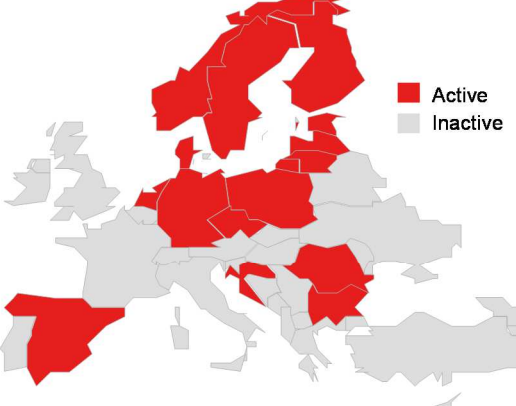
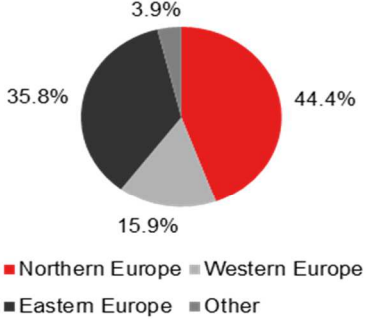
### Competitive quality

- Multitude differentiates itself from traditional banks with its **speedy loan application processes** for all products.
- In contrast to most neobanks, Multitude has been active in the market for over 17 years and can rely on a **proven risk management infrastructure**.
- With the CapitalBox tribe, **Multitude addresses a market segment that is structurally underserved by banks**, which typically concentrate on larger ticket transactions to cover their high risk-assessment costs.

### Warburg versus consensus

- On revenue level, our estimates are slightly above consensus for 2022e (cons. EUR 210.9m), in line for 2023e (cons. EUR 239.7m) and well below for 2024e (cons. EUR 275.2m).
- On EBIT level, our estimates for the detailed planning period are about 20% below consensus, which seems to be positively skewed by one optimistic broker.
- Our PT of EUR 6.50 is at the lower end of the consensus range which includes three other ratings, all Buy, with PTs of EUR 3.50, 9.00 and 11.10.

## Company Overview

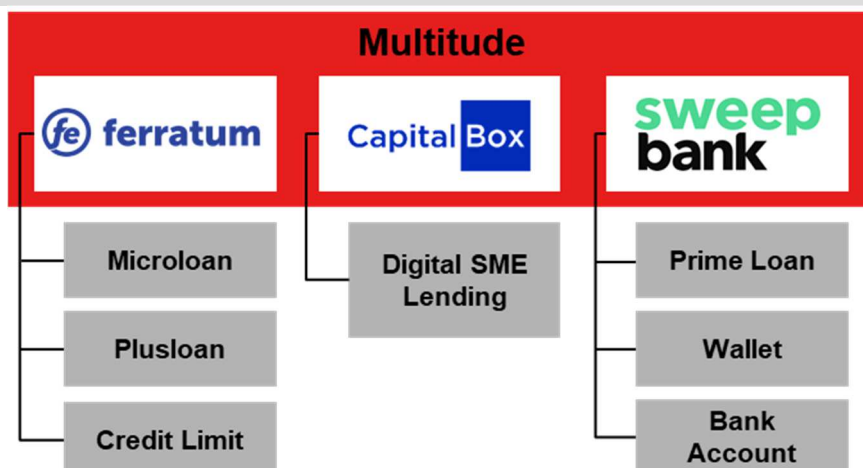
<p><b>Segments</b></p>	<p>Multitude is structured into three tribes, each focusing on one business segment.</p>																													
<p><b>Products</b></p>	 <ul style="list-style-type: none"> <li>• <b>Microloans for private consumers</b></li> </ul>	 <ul style="list-style-type: none"> <li>• <b>Digital wallet with e-commerce services</b></li> </ul>	 <ul style="list-style-type: none"> <li>• <b>Customized financing for SMEs</b></li> </ul>																											
<p><b>Selected competitors</b></p>	<ul style="list-style-type: none"> <li>• Banks, NBFIs, NGOs, Credit unions</li> </ul>																													
<p><b>Segment performance</b></p>	<div style="display: flex; justify-content: space-around;"> <div data-bbox="323 981 865 1384"> <p><b>Loans to customers</b></p>  <table border="1"> <thead> <tr> <th>Segment</th> <th>2020 (mEUR)</th> <th>2021 (mEUR)</th> </tr> </thead> <tbody> <tr> <td>Ferratum</td> <td>264</td> <td>283</td> </tr> <tr> <td>SweepBank</td> <td>34</td> <td>86</td> </tr> <tr> <td>CapitalBox</td> <td>63</td> <td>74</td> </tr> </tbody> </table> </div> <div data-bbox="890 981 1439 1384"> <p><b>Revenue and EBIT in 2021</b></p>  <table border="1"> <thead> <tr> <th>Segment</th> <th>Revenue (mEUR)</th> <th>EBIT (mEUR)</th> </tr> </thead> <tbody> <tr> <td>Ferratum</td> <td>183</td> <td>42</td> </tr> <tr> <td>SweepBank</td> <td>9</td> <td>-21</td> </tr> <tr> <td>CapitalBox</td> <td>22</td> <td>2</td> </tr> <tr> <td><b>Total</b></td> <td><b>214</b></td> <td><b>24</b></td> </tr> </tbody> </table> </div> </div>			Segment	2020 (mEUR)	2021 (mEUR)	Ferratum	264	283	SweepBank	34	86	CapitalBox	63	74	Segment	Revenue (mEUR)	EBIT (mEUR)	Ferratum	183	42	SweepBank	9	-21	CapitalBox	22	2	<b>Total</b>	<b>214</b>	<b>24</b>
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<p><b>Geography</b></p>	<div style="display: flex; justify-content: space-around;"> <div data-bbox="323 1462 865 1888">  <ul style="list-style-type: none"> <li>• Active</li> <li>• Inactive</li> </ul> </div> <div data-bbox="890 1462 1439 1888"> <p><b>Revenue by geography in 2021</b></p>  <ul style="list-style-type: none"> <li>• Northern Europe</li> <li>• Eastern Europe</li> <li>• Western Europe</li> <li>• Other</li> </ul> </div> </div> <ul style="list-style-type: none"> <li>• Outside of Europe, Multitude is establishing a presence in Australia, Brazil and Mexico</li> </ul>																													

Source: Warburg Research

## Products and Services

The company originally started out and developed its product portfolio under the brand name “Ferratum”. Following a strategic repositioning, the company rebranded to “Multitude” in 2021 and allocated its products over the three independent business segments “Ferratum”, “CapitalBox”, and “SweepBank”. The goal of this change is to underline Multitude’s position as an integrated financial platform and to more closely align the service offering with different customer’s requirements.

### Multitude organisational structure



Source: Warburg Research, company information

### Ferratum

The Ferratum brand focuses on fulfilling small, short-term financial requirements of consumers in 15 markets. It caters to people who find themselves in unplanned situations and in immediate need of a loan. The portfolio includes three types of loans which are easily accessible online in a fast application process:

- **Micro Loans** are rapid loans for short-term needs and quick repayment. The application only takes a few minutes, while automated AI-scoring algorithms calculate the terms. The loans range from EUR 25 to EUR 1,000 and are repaid in one instalment within 7-60 days. The average loan amount is EUR 279 and the average term is 30 days
- **Plus Loans** are larger loans ranging from EUR 300 to EUR 4,000 with maturity periods of between two and 18 months. The application process is as fast as for Micro Loans and repayments are equally distributed throughout the term of the loan. The average loan amount is EUR 927 with an average term of 416 days
- **Credit Limits** are open-ended revolving facilities which allow eligible customers to draw up to EUR 5,000, similar to a credit card without a physical card. With a revenue share of ca. 60%, Credit Limits are by far Multitude’s most popular product. The average loan amount is EUR 1,521

### CapitalBox

CapitalBox offers easily accessible, one-stop financing to SMEs in Finland, Sweden, Denmark, Lithuania and the Netherlands. The brand has the ambition to become Europe’s leading SME digital lender. An application takes approximately five minutes, and 70% of loans are approved in less than a day. There are three product types:

- **Instalment loans** of up to EUR 350,000 for a period of three to 36 months are designed to fund SMEs’ working capital requirements. The average loan amount is EUR 15,842 and the average term is 482 days

- **Credit lines** are a flexible form of financing ranging from EUR 2,000 to EUR 350,000 for a period of up to 50 months for all financing needs
- **Purchase Finance** is a programme providing CapitalBox financing for a business customer's purchases at a point of sale

### SweepBank

SweepBank is a customer-focused Smartbank centred on intuition and simplicity. The app is currently available in Finland, Latvia and Germany and combines shopping with financing services for tech-savvy young adults through three key functions:

- **Credit Cards:** Free Mastercard with a maximum credit facility of EUR 8,000, which allows financing smaller purchases in online and physical stores
- **Prime loan:** 1-10 years instalment loan of up to EUR 30,000. The average loan amount is EUR 8,000 and the average term is five years
- **Bank Account:** current account with 0.2% interest p.a. and fixed-term savings account with 1% interest p.a. (max. deposit EUR 100,000) for up to three years

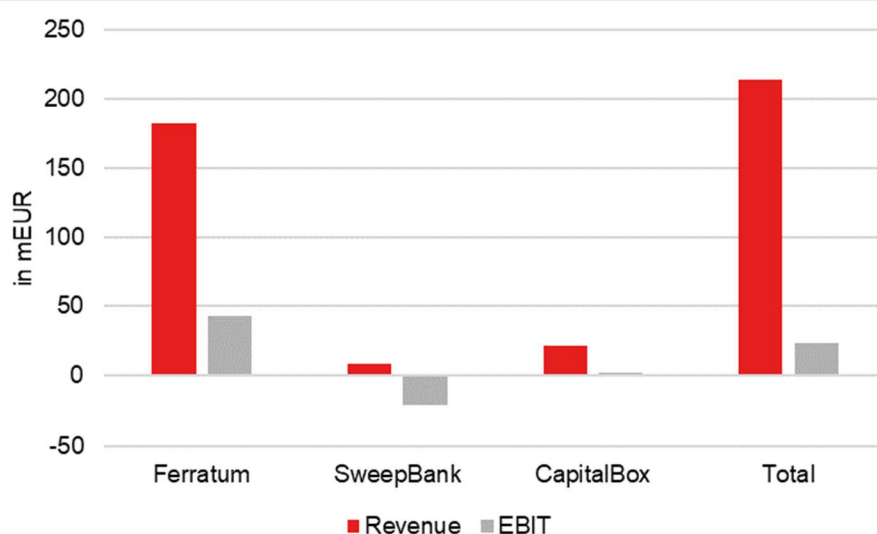
The average revenue per user amounted to EUR 187.1 in 2021.

### Segment performance

Multitude's three business segments are specifically designed to address certain customer groups, but benefit from the ability to cross-sell services. For example, owners of SMEs that are customers of CapitalBox can also be offered the bank account and features of SweepBank. Likewise, the lending business of Ferratum and CapitalBox are, in part, funded by the customer deposits in SweepBank accounts. In this way, the Multitude group aims to reel in its target demographic of tech-savvy young adults into its integrated ecosystem that is designed to conveniently handle all financing needs.

As the origin of Multitude, Ferratum is still the main engine of the business. In 2021, the segment contributed to 64% of the company's loan portfolio and generated 85.5% of Multitude's revenue with an operating margin of 23.2%. Both SweepBank and CapitalBox are still in early phases of development and lack the scale to significantly contribute to the group's profitability. Accordingly, SweepBank incurred operating losses of EUR 20.6m with revenues of EUR 9m, and CapitalBox closed the year with revenues of EUR 22m and an operating margin of 8.5%.

**Revenue and EBIT by segment (2021)**

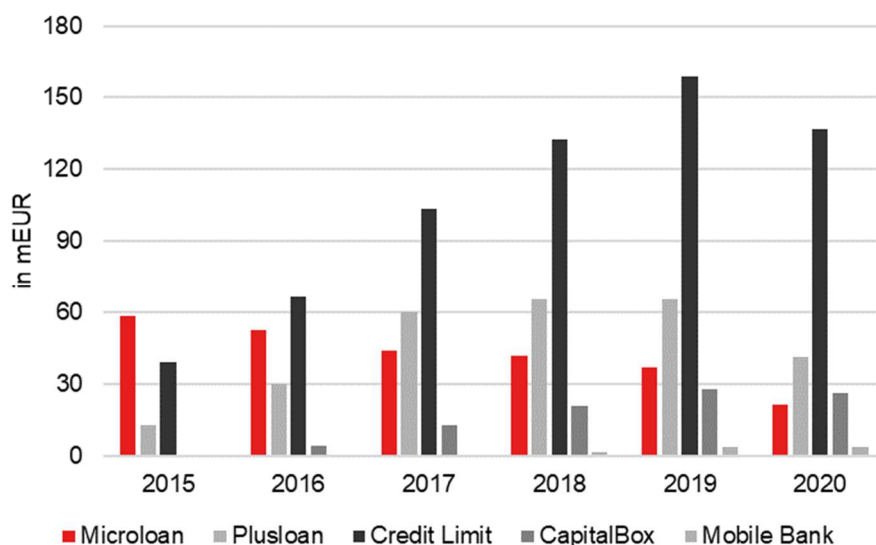


Source: Warburg Research, company information



Sorted by product type, we observe a clear shift in the product mix. Over time, revenues of Micro Loans steadily decreased in favour of the larger Plus Loans. Additionally, the more flexible credit limit quickly rose to become the largest revenue contributor by far with a share of 60% in 2020 and 54% in 2019. In recent years, Multitude began to expand the SME-lending business with CapitalBox, as well as SweepBank. However, compared to the revenues generated by the Ferratum segment, they make only minor contributions to overall group performance at this point in time.

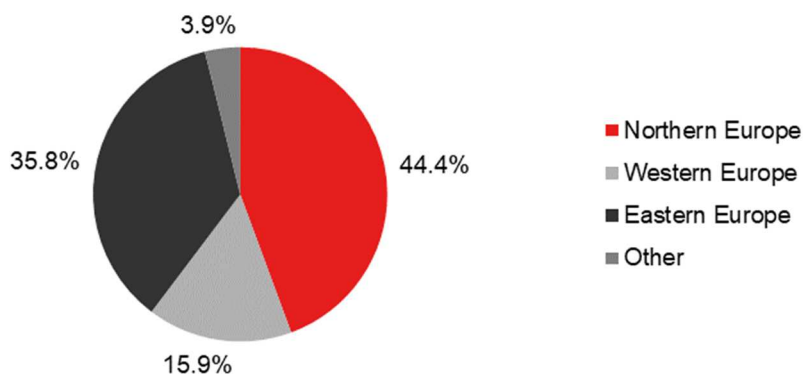
**Revenue by product type**



Source: Warburg Research, company information

In accordance with its regional origins, Multitude generates 44% of its revenue in northern Europe. Due to generally lower market entry barriers and high demand for personal microfinance products, the company conducts 36% of its business in eastern Europe and 16% in the more fragmented and developed western market.

**Revenue share by region**



Source: Warburg Research, company information



## Competitive Quality

- Multitude's **lightning-fast financing application processes** and **internal flexibility** provide a key advantage over competitors, such as traditional banks
- **Proven risk management with a long-standing track record** compared to neo banks
- **EU banking license**, which allows Multitude to do business in countries where one is required (i.e. DE, FR, IT) and use deposit funding for further expansion
- **Streamlined business divisions and digital platform** allow for **cross-benefits** and agility in a growing market environment

### EU banking license as the enabler

While Eastern Europe has a much larger share of credit unions and non-bank financial institutions, a banking license is required in most of the more mature economies of western Europe to provide the full scale of banking and lending activities. As a result, the lion's share of the gross European microloan portfolio is held by banks, and markets generally function locally. This dynamic presents significant upside for Multitude on various levels.

First, being in possession of a banking license in Malta, the company is able to conduct business in all EU nations and expand into promising new markets. As well as being an entry requirement for many western European markets, the license also has a signalling function in terms of reputation – a fully regulated bank comes with greater credibility for business partners and customers alike, especially in regions where a licence is not obligatory.

Secondly, the extensive legal requirements and regulatory framework in western Europe represent a strong market-entry barrier for other microfinance players. Non-banks cannot take deposits to finance their lending operations and depend on external funding, resulting in a clear disadvantage in agility over emerging players with a license.

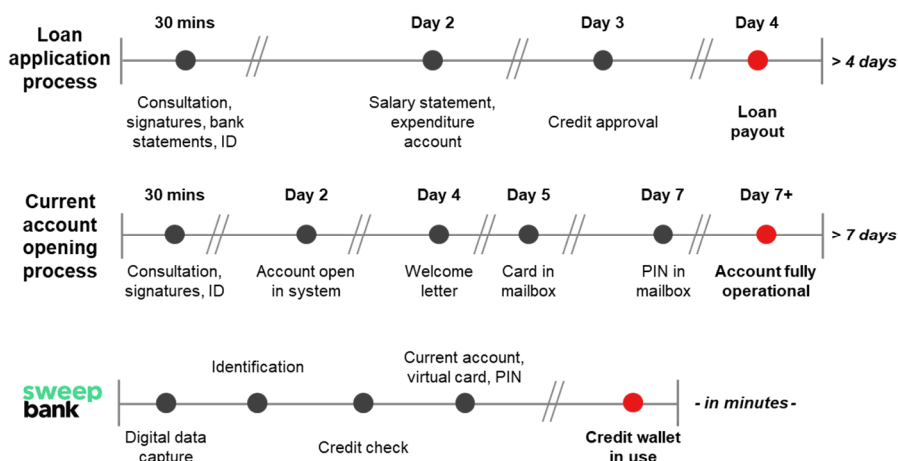
Finally, many fintechs that are engaged in microfinance function as intermediaries and merely compare the available financing options and refer potential clients to established credit institutions. Multitude, on the other hand, is fully integrated and can offer the entirety of the value chain in-house. In other words, the company can leverage its superior customer-facing technology and cancel out the intermediary role, thus leaving a larger share of the pie on the table for all associated parties.

### Central value proposition: speed and convenience

#### Lightning-fast credit decisions

The abundance of banks and financial service providers in the developed economies raises the question as to why clients would go to a comparably small institution like Multitude to obtain financing. The answer lies in the company's aspiration to provide convenient funding whenever needed. Be it personal or SME lending, all of Multitude's products are designed to reach the client as fast as possible. To illustrate, a typical Ferratum microloan under EUR 3,000 is deposited in the customer's account within minutes, and larger loans up to EUR 30,000 are processed within 48 hours. Likewise, to set up a credit wallet with SweepBank, customers merely have to provide their data and proof of identification and can enjoy the full functionality of the current account in only a couple of minutes. In comparison, it takes traditional banks an average of four days to pay out a loan, and seven days for current accounts to be fully operational. Not only does this provide existing users with a more convenient experience with each additional transaction than elsewhere, but new customers with spontaneous needs will also be more inclined to try out Multitude as opposed to entering lengthier processes with a different institution.

**Illustrative loan and credit account application process at a traditional bank vs. Multitude**

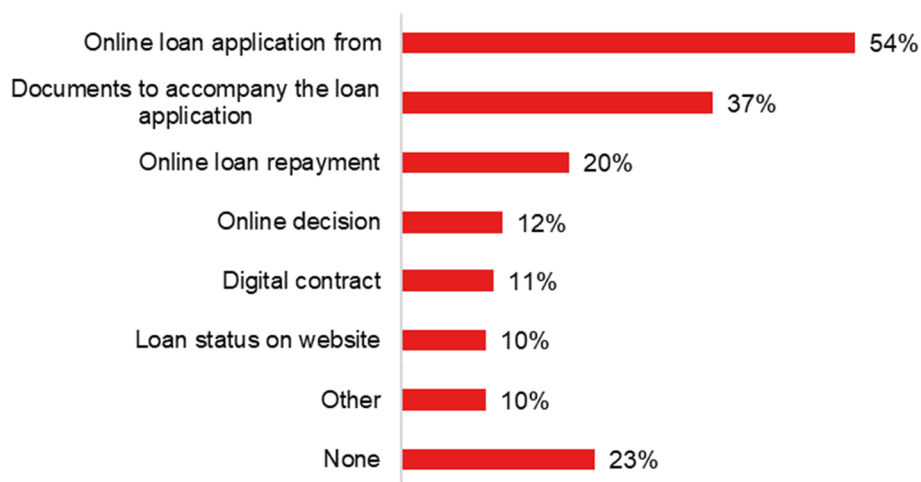


Source: Warburg Research, Multitude

**Digital platform enables economies of scale**

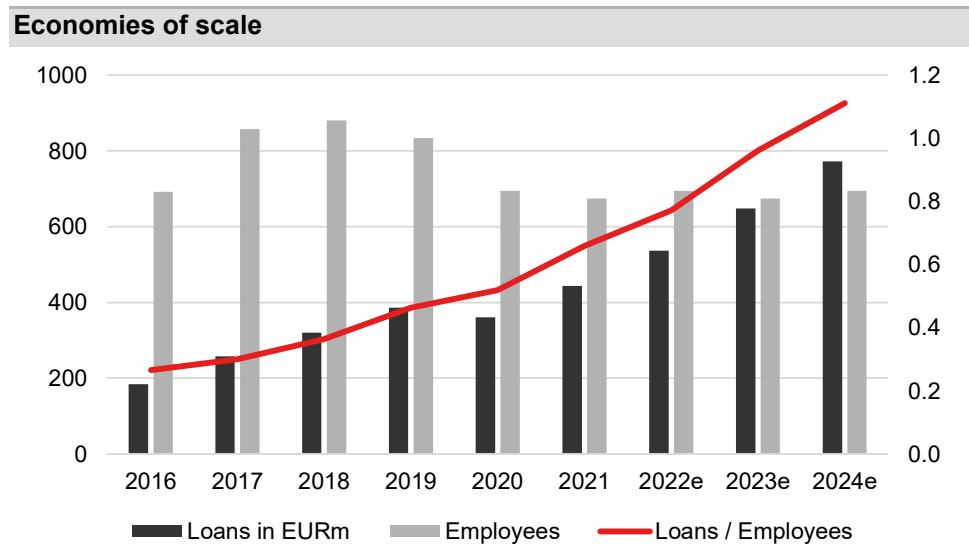
Since its inception in 2005, Multitude has been building and refining its mobile concept, which to this day is one of the cornerstones of its operations. Multitude realised early on, that providing financial services purely digitally simplifies and accelerates the procedure of bridging liquidity. Following the rebranding in 2021, the company has been able to provide all basic financing services from one source in a convenient manner, which speaks to the modern, dynamic customer. With the SweepBank account, Multitude positions itself in the midst of the evolving online shopping and e-commerce segment and can build a young userbase that organically grows over time. In this regard, Multitude has a first-mover advantage over a large part of the microfinance market, of which only about 54% of companies have an online loan application form, and 23% provide no digital services whatsoever, as reported by the European Microfinance Network in 2020. While there are no differences in the offer between the various institutions or locations, small institutions and those with a low end-client base are less likely to offer digital solutions. Yet, for many microfinance institutions the development of digital solutions is a top priority, indicating that this advantage might diminish over time.

**Digital services offered by microloan lenders (N=115)**



Source: Warburg Research, European Microfinance Network

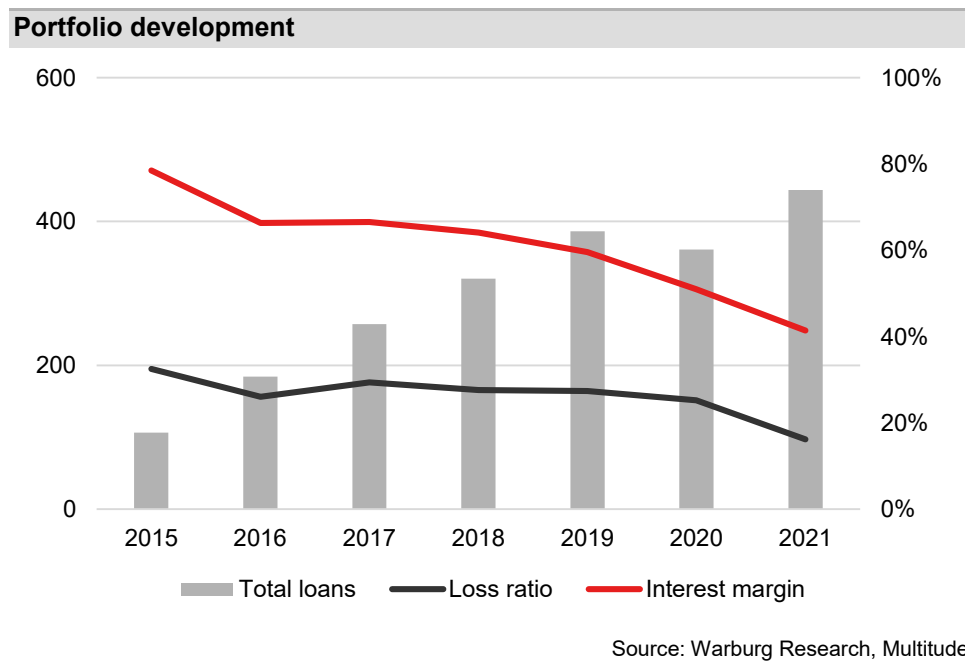
However, with the strong digital setup of the business processes, Multitude should show significant economies of scale. Considering that the application, approval and risk assessment are carried out purely digitally, Multitude’s staff should be able to increase the loan volume per employee even further. Over the past years, this KPI already increased significantly but should improve even further which keeps costs under control while the business continues growing.



Source: Warburg Research, Multitude

**Improving portfolio quality and proven risk assessment model**

Over the past years, Multitude has been working steadily on improving its loan portfolio quality. The company started as a provider of high-risk microloans to individuals and developed its portfolio over time towards higher loan tickets to more reliable customers and even SMEs. The success of this strategy is reflected in a total loan volume that increased more than four-fold since 2015, whilst the loss ratio showed a steadily decreasing trend which also holds true for the interest margin due to the lower risk/return profile of the portfolio.



The constant improvement in the loss ratio also demonstrates the proven risk model of the company. Since its inception some 17 years ago, Multitude has gathered an extensive dataset and developed a proprietary scoring algorithm that is constantly being improved. However, as mentioned earlier, one of Multitude’s competitive advantages is the speed of credit decisions, for which a fully digital risk assessment process is required.

## Growth / Financials

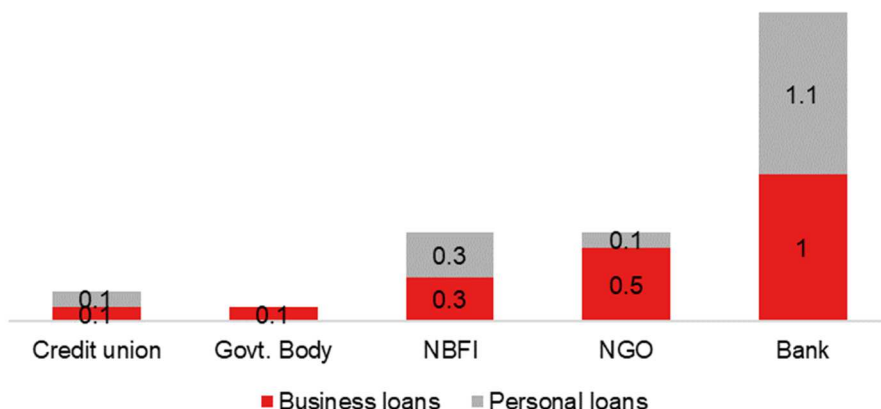
- With its focus on small-ticket financing for consumers and SMEs, Multitude serves a niche group, which requires banking services but is usually underserved.
- Over the past years, Multitude has been refocusing its business on slightly larger average ticket sizes, also by including further products like small-ticket SME loans. This should leave the company with an **overall annual loan portfolio growth of about 20%** over the next three years.
- **Revenue growth is expected to be** proportionately lower, at a **mid-single-digit** rate, owing to the larger ticket sizes which usually come at lower risk costs but also generate lower average interest margins.
- After the company cut down on costs during the pandemic, operational efficiency is set to increase significantly over the next years, which should lead to a **gradual increase in profitability**. This should be further fuelled by Multitude's efforts to keep costs under control and by economies of scale as the business returns to growth.

## Sizing the market

Multitude conducts the majority of its business in the European Microloan industry (i.e. financing of up to EUR 25,000). The sector is highly fragmented in terms of institutional characteristics, even though a large percentage of the overall portfolio is in the hands of a few providers. According to a European Commission study from 2020, the total number of active borrowers is estimated at 1.3 million, with a gross microloan portfolio outstanding of EUR 4bn. Personal loans constitute 45% while business loans make up 55% of the total microloan portfolio, which grew at a CAGR of ca. 15% in the years leading up to COVID-19. The characteristics of loans are relatively stable, with business microloans generally being larger with longer maturity and lower interest rates than personal loans.

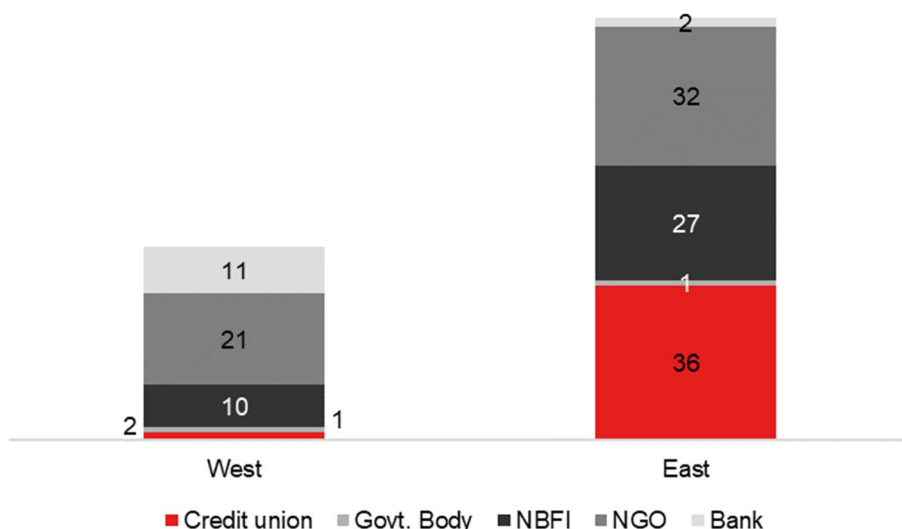
Microfinance products are widely available and provided by various institutions including MFIs, commercial banks, credit unions, and NGOs. The European market makes up 10% of the global microfinance portfolio, but faces different challenges depending on the country. Whereas microfinance in central and eastern Europe has a versatile supply side and revolves around financial inclusion and economic development, the financial markets in western Europe are generally highly developed, and established banks provide finance to the majority of the population. Thus, the western European microfinance sector is more focused on the marginalized population and combating social exclusion as well as providing small companies with the means to develop.

**Distribution of microloan portfolio by loan type and institution in EUR bn (N=122)**



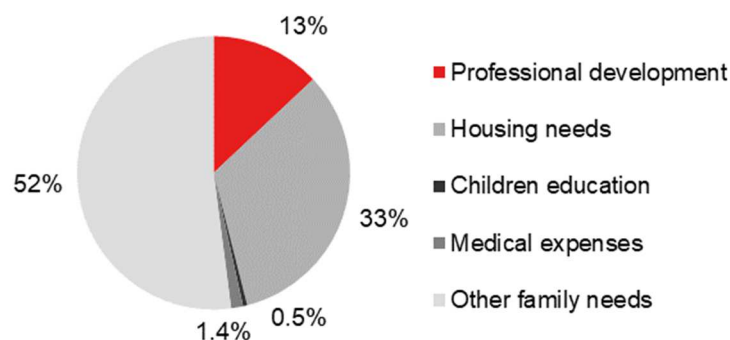
Source: Warburg Research, European Microfinance Network

**Distribution of institutional type by region in numbers (N=143)**



Source: Warburg Research, European Microfinance Network

Accordingly, the main reasons for taking personal microloans, include housing needs such as refurbishments, minor construction or mortgage payments, which together account for 33% of the total portfolio. About 13% are used for professional development, such as education or starting a business, and the majority, 52% are used for unspecified family needs.

**Distribution total personal microloan portfolio by use (N=51)**


Source: Warburg Research, European Microfinance Network

**Filling the supply gap in SME lending**

As mentioned earlier, for the most part, the European business-lending segment has developed into a state where dominant players are economically motivated to underserve the market. There is enough demand that financial institutions can comfortably scale their operations to, and purposely deny a substantial part of the demand side access to its products. This issue has existed for a while, and is difficult to resolve due to its structural nature. As a result of regulatory requirements, traditional banks have been shrinking their balance sheets and reducing their portfolio risk. Over time, the risk management processes at a typical bank have become so expensive, that it is no longer economical to lend comparably small amounts of money to micro-enterprises.

Thus, it has become increasingly difficult for small and young companies to obtain debt financing, resulting in a substantial mismatch between demand and supply. Considering the unmet potential demand, the total annual gap for microfinance in Europe was estimated at EUR 24 billion, or 89% of constrained demand in the European Commission study from 2019. In absolute numbers, the largest supply gaps are in Turkey, Italy, France, Germany, and the UK. Furthermore, due to inflationary pressure and the ensuing higher interest rates, the supply of microfinance is expected to grow at more modest rates than demand. Coupled with additional regulatory changes that negatively impact funding costs of financial institutions, this means that the supply gap is set to grow even further over the next 10 years.

Aspiring SMEs will continue to face challenges in securing suitable funding options. Ideally, a start-up will be supported by angel investors or venture capitalists to get a shot at the broader market. The majority of less spectacular businesses without immediate growth prospects, however, are left with little other than the often uncomfortable funding option of turning to friends and family.

This presents Multitude with the opportunity to become a major player in a structurally abandoned and thus relatively untapped market segment. Having gathered expertise in the management of risky loan portfolios with the Ferratum brand since 2005, the company already possesses the data and technology to fill the gap. As macroeconomic tension persists and overall uncertainty rises, the need for flexible financing of small businesses increases as well, which provides the microlending market with additional momentum. Since 2015, Multitude has been able to expand its SME-lending portfolio at a CAGR of 65%. Initially, margins jumped in line with the portfolio growth. Yet, in recent years, there seems to be a trend towards not just lower interest margins but also equally lower operating margins. Ideally, lower interest margins should attract better borrowers and with that improved portfolio quality – while operating margins stay the same or even increase

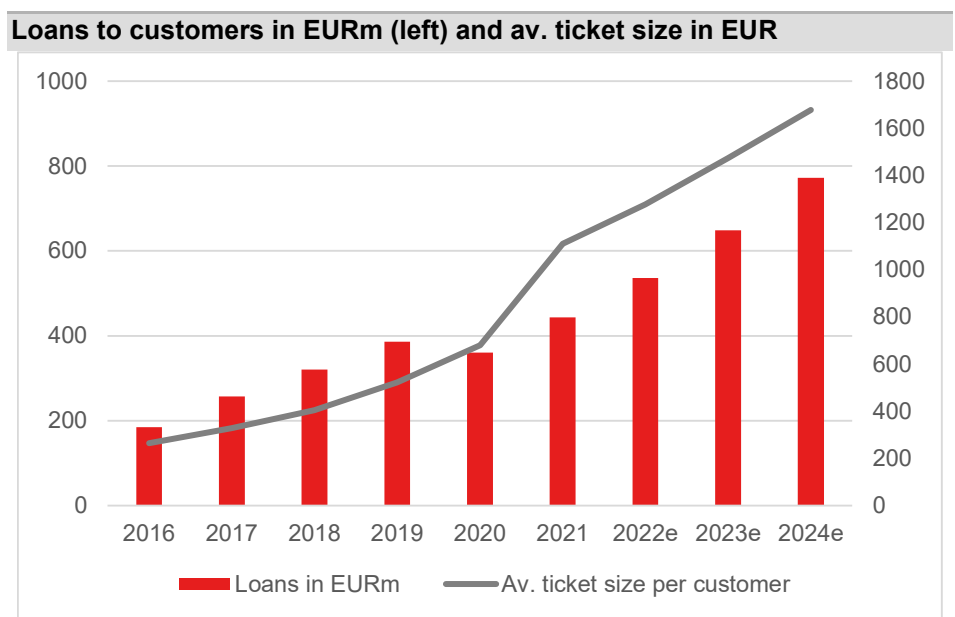


along the way. This development cannot yet be seen in the chart below, most likely due to the time lag associated with the impairments caused by existing borrowers.

**Broad product offering allows for sustainable portfolio growth**

Multitude provides access to banking services and financing solutions to consumers and SMEs. Given its business model, the company’s growth rates should depend on general demand for financing solutions in its operating markets. However, Multitude has managed to show constant loan portfolio growth. Going forward, we expect the loan portfolio to grow further, based on different pillars which include:

- **Market penetration:** Considering the size of the European small-ticket consumer and SME financing market, Multitude has more than sufficient scope for further growth.
- **Product expansion to further markets:** Multitude strives to intensify the coverage of products in its markets of operation further. While Ferratum products are already offered in 15 countries, SweepBank and CapitalBox are only operating in five, providing potential for regional expansion.
- **Continuing shift in product focus:** During the past years, Multitude experienced a continuous shift towards larger loan ticket sizes which usually come at slimmer interest margins but also lower average loan losses. This trend started once the company diversified its product portfolio from purely microloans towards other consumer loans with larger ticket sizes and longer maturities (e.g. Plus Loan and Credit Limit) and the inclusion of SME loans. However, as these are the product categories in focus to provide proportionately greater growth rates, average ticket sizes should continue to grow.



Source: Warburg Research, Multitude

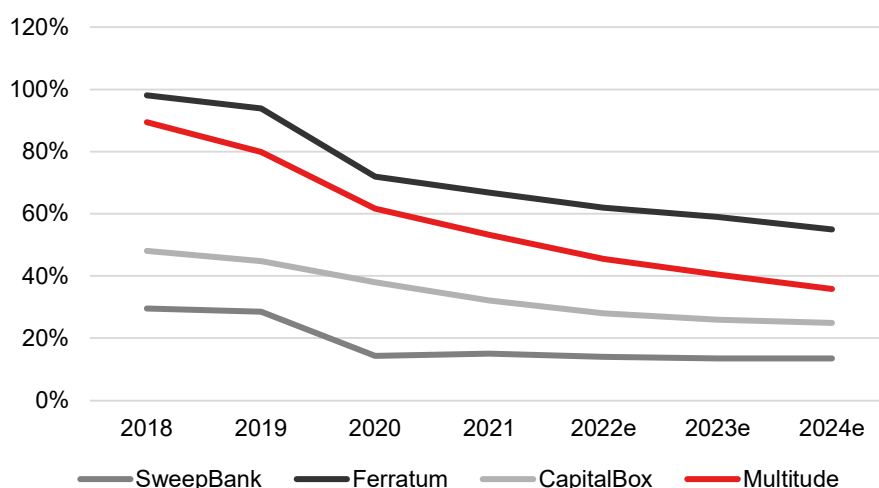
**Conclusion:** The success of Multitude’s growth strategy and the demand for the offered solutions can be seen in growth rates which reflect clear market-share gains. Historically, average portfolio growth rates of up to 74% have been reached, which reduced to about 20-25% since 2018. However, considering the increasing average ticket sizes and intensifying market penetrations, portfolio growth going forward should be expected in the area of around 20%.

### Slower revenue growth than loan portfolio growth

In line with the loan portfolio growth, Multitude’s revenue, which basically consists of interest income, should be expected to grow as well. However, based on the following assumptions, revenue growth is expected to be proportionately slower than the overall loan portfolio growth:

- Within the **Ferratum** segment, the focus of new business lies on Plus Loan and Credit Limit which should push the average loan size to higher levels. Simultaneously, these products show a lower interest margin than Micro Loans.
- **SweepBank** is expected to grow strongly, also with its entry into new markets. However, the revenue-generating products credit card and Prime Loan have structurally lower interest rates than Micro Loans, which still make up large parts of the overall portfolio.
- Finally, the SME segment **CapitalBox** is expected to show proportionately stronger growth than Ferratum, but with about half the interest margin. This should also result in deteriorating interest margins.

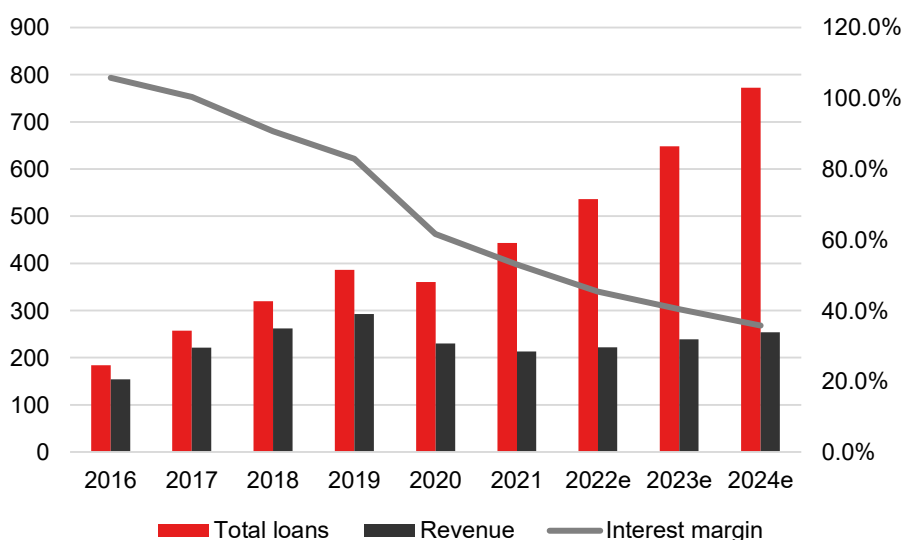
#### Interest margin by segment



Source: Warburg Research, Multitude

As displayed above, the overall group interest margin is expected to remain slightly lower than the Ferratum margin, but should develop towards a more blended version in future. However, the steepness of the decline in interest margin should ease from 2025e onwards, which should result in revenue growth in line with portfolio volume growth.

**Loan Portfolio and Revenue development (EURm)**

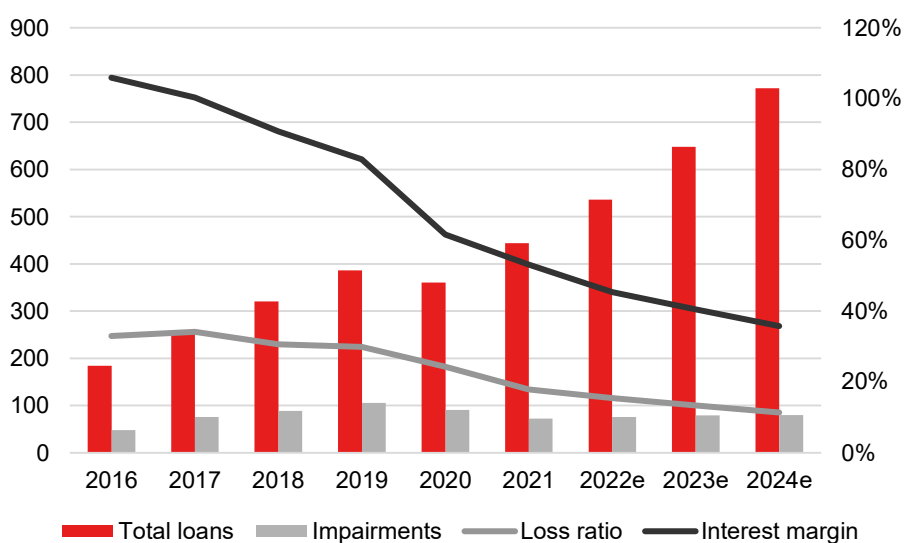


Source: Warburg Research, Multitude

**Significant improvement in portfolio quality expected to continue**

In line with the decreasing interest margin, the loss ratio dropped as well, benefiting from a constantly improving loan quality within the portfolio.

**Loan portfolio and revenue development (EURm)**



Source: Warburg Research, Multitude

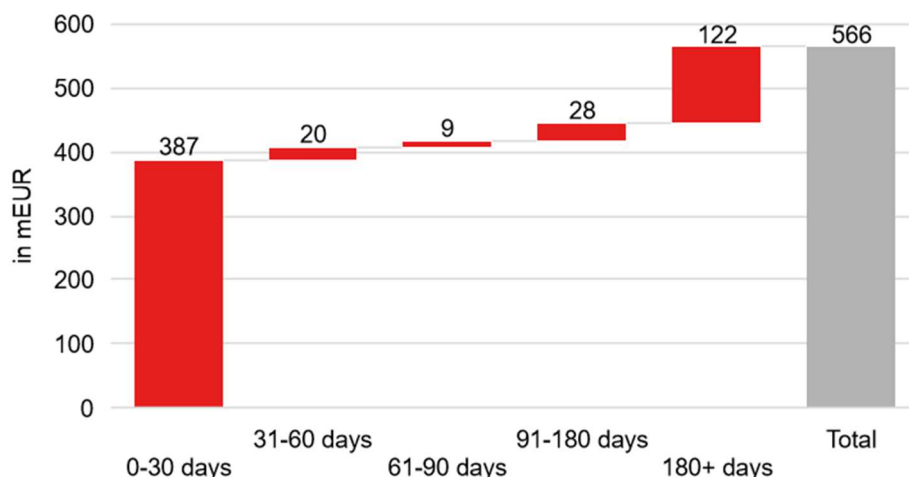
The loss ratio as calculated by us is defined by the impairment loss on loans divided by the average size of the loan portfolio of the respective period. The loss ratio peaked at 34.2% back in 2017, declined to about 18% in 2021 and is expected to improve further as the average ticket size per customer increases.

However, in relation to total revenues, impairment costs moved in a range between 31% and 40% (in 2020, due to the outbreak of the pandemic). Generally, we expect impairment costs to remain at a level in the low 30s, which can vary, especially with external, macro-driven shocks as seen in the past.

### High risk profile of microloans reflected in loan portfolio

At the end of 2021, EUR 387m or 68.3% of Multitude’s gross outstanding loans were less than 30 days overdue, and EUR 122m or 21.5% were more than 180 days overdue. Accordingly, the PAR30 ratio, i.e. the portion of the loan portfolio that is more than 30 days overdue, amounted to 31.7% in 2021 (40.1% in 2020).

#### Multitude’s outstanding loans by days overdue at the end of 2021

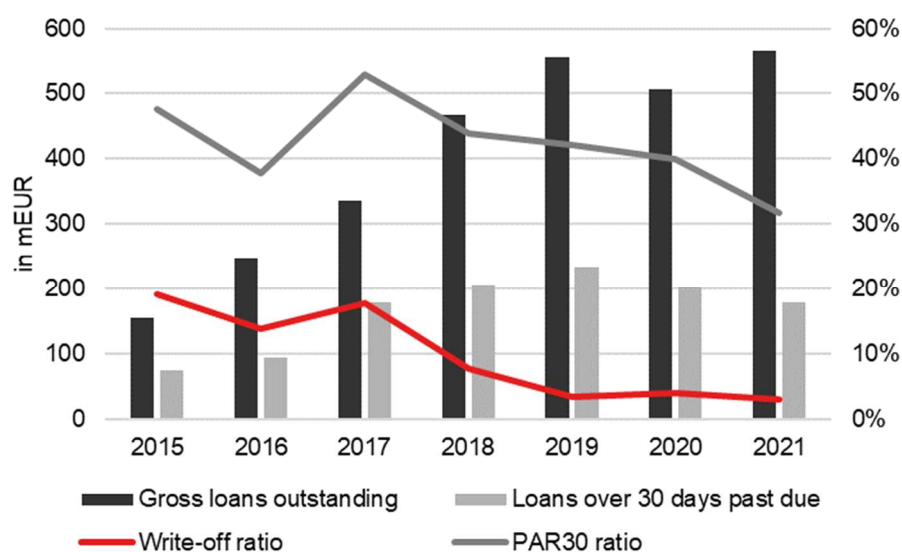


Source: Warburg Research, Multitude

Multitude classifies loans as “performing” in stage 1 that show a range of up to 30 days past due. For these loans, the company reflects credit losses in the amount of expected losses in the P&L. Loans between 31 and 90 days over-due are considered “underperforming” and classified in stage 2, which leads to an increase in risk provisioning. Finally, loans that are more than 90 days over-due are considered “non-performing”, resulting in high write-offs.

A closer look at the historic developments of the key portfolio quality metrics reveals that Multitude is actively working on reducing the risk in its credit portfolio. Since 2015, the company’s gross outstanding portfolio grew from EUR 156m to EUR 566m. Meanwhile, both the PAR30 ratio and the write-off ratio showed an almost steady decline from 48% to 32% and from 19% to 3%, respectively.

#### Portfolio quality metrics over time



Source: Warburg Research, company reporting

## Profitability to revive after the pandemic

With the operative EBIT margin of 11.2% reached in 2021, Multitude's profitability was below the potential of the business model and historic values in a range between 14% and 15.5%. This is mainly due to the further decline in the top line, which should have bottomed out in 2021. The pandemic hit the company in midst of the strategic re-orientation from offering only microfinance towards broader diversification aiming for larger ticket sizes and longer loan terms.

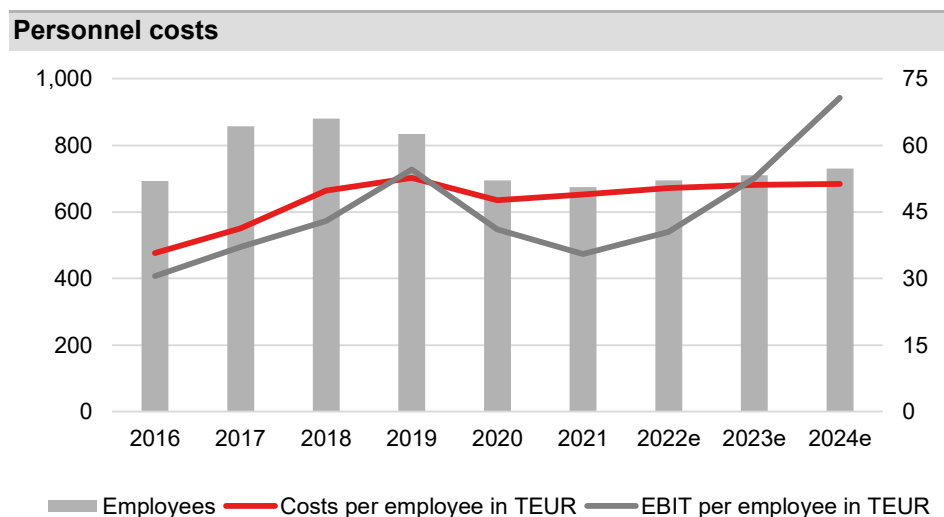
However, the outbreak of the pandemic led to a more restrictive approach to keep the loan portfolio healthy and prevent high loan losses. This in turn led to dwindling revenues for two consecutive years. Simultaneously, the company introduced cost-saving plans which helped to record positive EBIT contributions.

<b>Cost items</b>							
in EUR m	2018	2019	2020	2021	2022e	2023e	2024e
<b>Sales</b>	<b>262.1</b>	<b>293.1</b>	<b>230.5</b>	<b>213.7</b>	<b>222.3</b>	<b>239.7</b>	<b>254.4</b>
Impairment loss on loans	88.5	105.7	91.0	71.9	75.8	79.4	80.4
<i>ratio</i>	33.8%	36.1%	39.5%	33.7%	34.1%	33.1%	31.6%
Bank and lending costs	13.0	17.8	13.4	14.3	13.6	14.6	15.0
<i>ratio</i>	4.9%	6.1%	5.8%	6.7%	6.1%	6.1%	5.9%
<b>Gross profit</b>	<b>160.7</b>	<b>169.6</b>	<b>126.1</b>	<b>127.4</b>	<b>132.9</b>	<b>145.8</b>	<b>159.0</b>
Personnel expenses	43.8	43.9	33.1	33.0	35.0	36.3	37.4
<i>ratio</i>	16.7%	15.0%	14.4%	15.4%	15.7%	15.1%	14.7%
Selling and marketing expenses	41.4	38.8	22.7	26.5	24.3	24.6	23.4
<i>ratio</i>	15.8%	13.2%	9.9%	12.4%	10.9%	10.3%	9.2%
Other operating expenses	32.7	30.6	28.9	30.9	29.6	30.1	28.6
<i>ratio</i>	12.5%	10.4%	12.5%	14.5%	13.3%	12.6%	11.2%
<b>EBITDA</b>	<b>43.0</b>	<b>56.4</b>	<b>41.9</b>	<b>39.2</b>	<b>44.0</b>	<b>54.7</b>	<b>69.6</b>
<i>margin</i>	16.2%	18.1%	16.8%	17.0%	18.4%	21.4%	26.0%
Depreciation and ammortisation	5.2	10.8	13.4	15.3	15.9	17.4	18.0
<i>ratio</i>	2.0%	3.7%	5.8%	7.2%	7.2%	7.3%	7.1%
<b>EBIT</b>	<b>37.8</b>	<b>45.5</b>	<b>28.5</b>	<b>23.9</b>	<b>28.1</b>	<b>37.3</b>	<b>51.6</b>
<i>margin</i>	14.4%	15.5%	12.4%	11.2%	12.7%	15.6%	20.3%
Financial result	-15.5	-18.0	-22.3	-20.3	-21.0	-22.5	-23.8
<i>ratio</i>	5.9%	6.1%	9.7%	9.5%	9.4%	9.4%	9.4%
<b>EBT</b>	<b>22.3</b>	<b>27.5</b>	<b>6.2</b>	<b>3.6</b>	<b>7.1</b>	<b>14.8</b>	<b>27.8</b>
Taxes total	3.1	3.9	1.2	2.4	1.4	3.0	5.6
<b>Net income from continuing operations</b>	<b>19.3</b>	<b>23.6</b>	<b>5.0</b>	<b>1.2</b>	<b>5.7</b>	<b>11.9</b>	<b>22.2</b>
Income from discontinued operations (net of tax)	0.0	0.0	-4.5	-3.8	0.0	0.0	0.0
<b>Net income before minorities</b>	<b>19.3</b>	<b>23.6</b>	<b>0.5</b>	<b>-2.6</b>	<b>5.7</b>	<b>11.9</b>	<b>22.2</b>
Minority interest	0.0	0.0	0.0	0.0	4.0	4.5	4.5
<b>Net income</b>	<b>19.3</b>	<b>23.6</b>	<b>0.5</b>	<b>-2.6</b>	<b>1.7</b>	<b>7.4</b>	<b>17.7</b>

Source: Warburg Research, Multitude

**Bank and lending costs** include costs for invoicing and collection, external scoring, loan handling and other bank and lending costs. In relation to sales, these costs should show a slightly declining trend, as larger ticket sizes allow for lower specific costs per contract. As described above, **impairment costs** show a declining trend as well, following the portfolio quality improvement. However, solid ground should be reached in the low 30s, which is expected to be the case from 2024e onwards.

**Personnel expenses** develop in line with the number of employees. As a result of cost discipline and the outbreak of the pandemic, the number of employees decreased from 2018 until 2021 and staff was reduced from 880 to merely 674. However, with the re-focus on viable growth, there should be a slight increase in the number of employees going forward. As mentioned in the Competitive Quality section above, operational efficiency per employee should increase and, as Multitude returns to higher profitability, EBIT per employee is expected to rise as well.



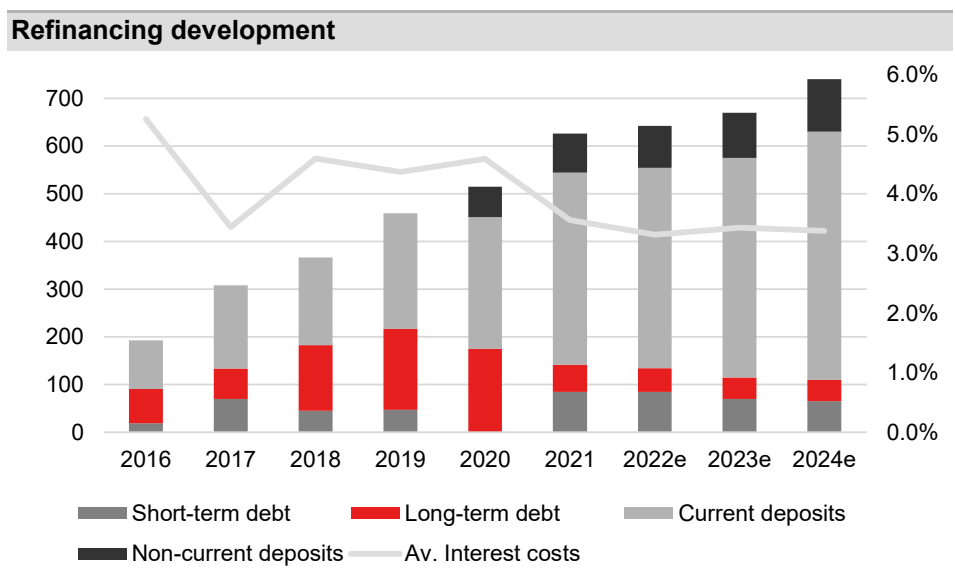
Source: Warburg Research, Multitude

**Marketing costs** are expected to show a stable trend going forward. In 2021, Multitude invested strongly in marketing and launching the SweepBank brand. Even though further market introductions could temporarily lead to higher marketing costs, the other segments should benefit from optimization of marketing mixes. Furthermore, stricter cost discipline should prevent the company from investing even more heavily in marketing, which is why the current negative EBIT contributions from SweepBank should improve over the next years.

Further potential to optimise economies of scale lies in **other operating expenses**, which mainly consist of general and administrative fees. Especially for the SweepBank segment, there is plenty room for optimization which, together with an increasing top-line, explains the company's ambition for the segment to turn profitable in 2024. However, the whole group should benefit from increasing efficiency going forward, consequently lowering the cost ratio of other operating expenses over time.

Finally, the **financial result** constitutes a significant cost position for Multitude. Resulting from the business model as a provider of small-ticket financing, the company has to refinance the loan portfolio. In its financing mix, Multitude basically relied on current deposits and long-term debt. Going forward, we expect the financing mix to further focus on current deposits which represent by far the largest refinancing pillar.

Considering the average interest rate on the refinancing vehicles, we expect different effects: The growing proportion of current deposits should lead to declining interest costs as this is the cheapest source of debt. Simultaneously, the rising interest environment should affect non-current deposits as well as short-term and long-term debt, resulting in an opposite effect. Overall, the average interest rate is expected to remain rather flattish, resulting in financing costs, that develop in line with the portfolio growth.



Source: Warburg Research, Multitude

Following the emphasized position of short-term refinancing, the majority of financial liabilities as of 2021 is due within less than 12 months (78%). The remaining liabilities are due within 1-2 years (19%) and between 2-5 years (3%). Considering the short-term character of most of its products, financial liabilities and the loan portfolio should show rather similar durations, which also limits the exposure to interest changes.



## Segment assumptions

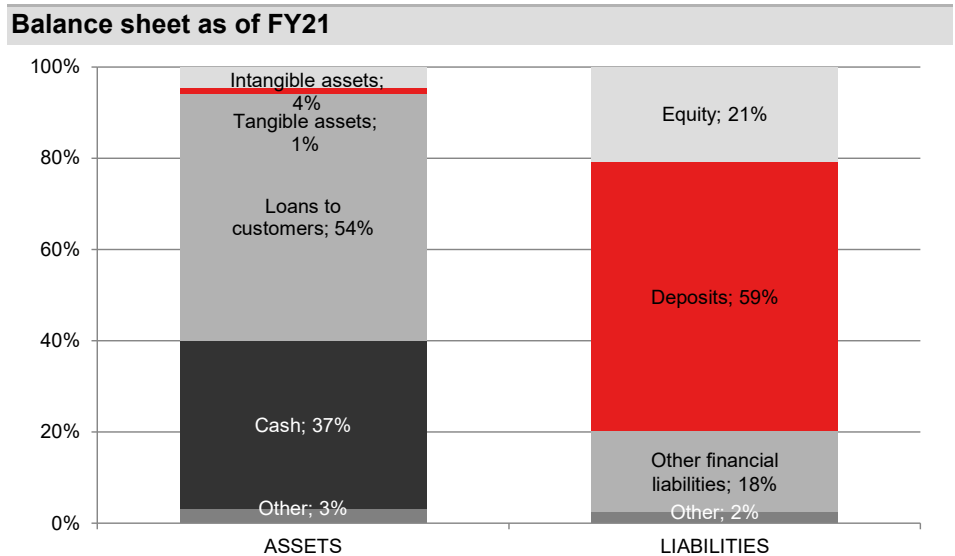
Based on the described developments and assumptions going forward, we derive the following estimates for the respective segments of the company, which is also the key input for our detailed planning period until 2024e.

Detailed segment estimates in EURm							
	2018	2019	2020	2021	2022e	2023e	2024e
<b>Ferratum</b>							
Loan Portfolio	264.2	293.3	264.4	282.6	310.9	338.9	362.6
yoy		11.0%	-9.8%	6.9%	10.0%	9.0%	7.0%
Revenue	239.7	261.7	200.5	182.7	184.0	191.7	192.9
yoy		9.2%	-23.4%	-8.9%	0.7%	4.2%	0.6%
Costs	198.0	214.0	159.4	140.2	137.8	142.9	142.5
yoy		8.1%	-25.5%	-12.0%	-1.8%	3.7%	-0.3%
EBIT	41.9	47.9	41.5	42.4	46.2	48.8	50.4
yoy		14.3%	-13.3%	2.3%	9.0%	5.5%	3.4%
<b>SweepBank</b>							
Loan Portfolio	7.7	17.2	33.6	85.8	137.3	205.9	288.3
yoy		122.6%	95.6%	155.6%	60.0%	50.0%	40.0%
Revenue	1.5	3.5	3.6	9.0	15.1	23.2	33.4
yoy		141.3%	2.9%	146.5%	67.6%	53.8%	44.0%
Costs	9.1	8.3	22.3	29.6	34.8	38.1	39.0
yoy		-8.3%	168.4%	32.9%	17.4%	9.6%	2.5%
EBIT	-7.6	-7.1	-18.6	-20.6	-19.7	-14.9	-5.7
yoy		-5.9%	160.9%	10.8%	-4.5%	-24.2%	-61.9%
<b>Capital Box</b>							
Loan Portfolio	48.7	75.7	62.9	74.4	87.8	103.6	121.3
yoy		55.5%	-16.8%	18.3%	18.0%	18.0%	17.0%
Revenue	21.0	27.8	26.3	22.0	21.1	24.9	28.1
yoy		32.5%	-5.5%	-16.3%	-4.3%	18.0%	12.9%
Costs	17.5	23.7	20.7	20.2	19.6	21.4	22.2
yoy		35.5%	-12.8%	-2.4%	-3.0%	9.3%	3.7%
EBIT	3.5	4.1	5.6	1.9	1.5	3.5	5.9
yoy		17.2%	36.5%	-66.5%	-20.6%	132.2%	70.3%
<b>Multitude Group</b>							
Loan Portfolio	320.5	386.2	361.0	442.9	536.0	648.4	772.1
yoy		20.5%	-6.5%	22.7%	21.0%	21.0%	19.1%
Revenue	262.1	293.1	230.5	213.7	220.2	239.7	254.4
yoy		11.8%	-21.4%	-7.3%	3.0%	8.9%	6.1%
Costs	224.6	246.0	202.4	190.1	192.1	202.4	203.7
yoy		9.5%	-17.7%	-6.1%	1.1%	5.4%	0.7%
EBIT	37.8	44.8	28.5	23.7	28.0	37.3	50.6
yoy		18.6%	-36.5%	-16.9%	18.4%	33.2%	35.7%

Source: Warburg Research, Multitude

**Balance sheet characterized by banking business**

Multitude’s business activities resemble plain-vanilla banking business, resulting in a very typical balance sheet. The capital tied up in fixed assets is mainly attributable to intangible assets (predominantly computer software and internally generated software) and property, plant and equipment or respective leases. The majority of assets is attributable to loans to customers (54%) and cash (37%).

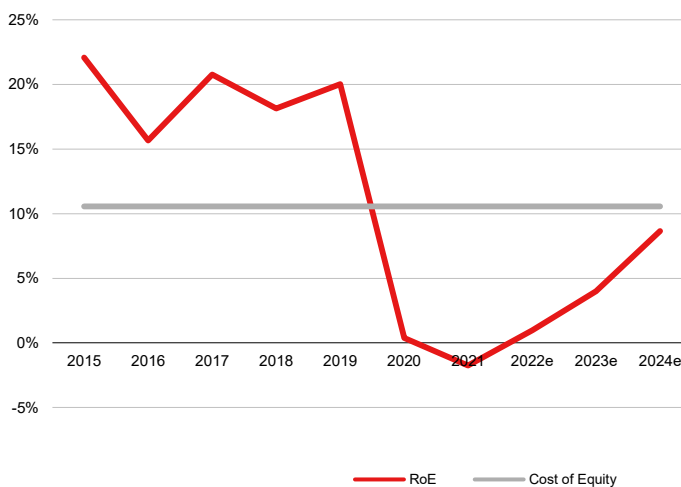


Source: Warburg Research, Multitude

As a company with a banking license, the liabilities side of the balance sheet consists mainly of the refinancing sources of the operational business. Total equity sums up to 21% (not to be confused with regulatory CET1-ratio), which includes a perpetual bond in the amount of EUR 50m that was issued in 2021. The other refinancing sources were already described above and consist of deposits (59%) and financial liabilities (18%).

## RoE to improve significantly

### Return on Equity development



Source: Warburg Research, Multitude

The return on equity of Multitude reached a low in 2021 and turned negative to a level of -1.7%. However, this was due to the operational outcome of the reorganization of the business as well as the outbreak of the pandemic which led to dwindling sales and higher costs from loan losses. Historically, the company was able to generate RoE in the area of around 20%.

As described previously, the dwindling top line should have come to an end and single-digit portfolio volume and sales growth should be expected going forward, translating into proportionately stronger net-income growth. This should thus result in significantly improving return on equity margins over the next years. Whilst the RoE should still not reach our assumption of cost of equity of 10.56% in the detail planning period until 2024e, we expect the RoE to surpass 11% in 2025e for the first time. Thereafter, Multitude should be able to sustainably achieve an RoE around, or slightly above, its cost of equity.

## Valuation

- The price target of EUR 6.50 is based on a Residual Income model
- The current PTB multiple of 0.29x constitutes the lowest valuation since the IPO of the company back in 2015. Until 2020, the company never traded below its book value of equity.

### Residual Income model

As our standard DCF valuation model is not expedient for banking businesses, we rely on an equity-focused valuation method instead of valuing cash-flows. Therefore, we apply a Residual Income model to estimate earnings, equity, and excess returns.

The PT of EUR 6.50 is based on a Residual Income model and the following assumptions:

#### Revenue growth 2021-2024e at a CAGR of 6% is a result of:

- Loan portfolio growth of roughly 20% for the next years
- A shift in the product mix towards loans with lower interest rates but also significantly lower risk and therefore loan losses
- Following the lower risk profile, a decreasing interest margin from 53% in 2021 to 36% in 2024e should be the result

#### Proportionately stronger net income growth expected

Whilst recording slightly negative net income of EUR -2.6m in 2021, we expect Multitude to return to profitability as soon as in 2022, mainly driven by the following:

- After completing major parts of the regional consolidation and refocusing the company on loans with less risk, the overall loan portfolio should show a growing trend and restructuring costs should cease going forward
- Operational efficiency should increase and loan volume per employee is set to rise
- Margins should climb on the back of a maturing business in the segment SweepBank which is still loss-making but expected to break even in 2025
- Risk costs in relation to loan volume should decline further, keeping loan losses on a rather stable level whilst revenue is expected to grow slightly

Reflecting the above-average risks of the small-ticket loan portfolio, we apply a relatively **high beta of 1.42**. This leads to expected cost of equity of 10.56%.

Overall, our residual income model yields a **fair value of EUR 141m**, which is below the book value of EUR 169.5m as of 2021. This is basically because the company is not expected to earn its cost of equity until 2026e which leads to negative value contributions according to our model. Thereafter, the business model should yield slightly more than its cost of equity. However, in the past, Multitude was able to regularly generate RoEs of more than 20%. Going forward, we assume lower RoE for the following reasons:

- The focus on larger tickets at lower interest margins result in structurally higher capital requirements
- Longer average terms of the loan portfolio lead to a lower capital turn, putting further pressure on the return on equity

Thus, we expect Multitude to be able to earn just slightly more than its cost of equity in the medium term, which results in a fair value that is close to the current book value of equity. Nonetheless, if Multitude is able to generate higher returns in the future, significant upside potential to our estimates appears conceivable. A higher RoE than anticipated could basically result from higher loan portfolio and therefore revenue growth. Furthermore, higher operational efficiency would result in a lower cost basis, increasing the profitability.

### Residual Income Model

Figures in EUR m	Detailed forecast period			Transitional period										TV	
	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e	2031e	2032e	2033e	2034e		
Equity beginning of period	169	181	187	205	219	235	251	269	288	308	330	353	378		
Equity end of period	181	187	205	219	235	251	269	288	308	330	353	378	404		
Net income	2	7	17	21	24	26	28	30	32	35	37	39	42		
yoy		330%	131%	23%	16%	8%	8%	7%	7%	7%	7%	6%	6%	1.5%	
Dividends paid	0	1	4	7	8	10	10	11	12	13	14	15	16	42	
Payout ratio	0%	38%	59%	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%	100.0%	
Return on equity	1.0%	4.0%	8.7%	9.9%	10.7%	10.8%	10.8%	10.9%	10.9%	10.9%	10.8%	10.7%	10.6%		
Cost of Equity	10.6%	10.6%	10.6%	10.6%	10.6%	10.6%	10.6%	10.6%	10.6%	10.6%	10.6%	10.6%	10.6%		
Excess return	-16	-12	-4	-1	0	1	1	1	1	1	1	1	0		
Discount factor	0.98	0.88	0.80	0.72	0.65	0.59	0.53	0.48	0.44	0.40	0.36	0.32	0.29		
Present value	-16	-10	-3	-1	0	0	0	0	0	0	0	0	0	-1	
Share of PVs	100%													-5%	5%

#### Model parameter

Derivation of Cost of equity:		Derivation of Beta:	
Market return	8.25%	Financial Strength	1.50
Risk free rate	2.75%	Liquidity	1.50
Cost of Equity	10.56%	Cyclicality	1.40
		Transparency	1.30
		Others	1.40
		<b>Beta</b>	<b>1.42</b>

#### Valuation (m)

PV terminal value	-1	No. Of shares (m)	21.58
Sum PVs until 2034e	-28	Value per share	6.51
Current book value	169		
<b>Equity value</b>	<b>141</b>		

#### Sensitivity Value per share (EUR)

Beta	CoE	LTG							
		0.0%	0.5%	1.0%	1.5%	2.0%	2.5%	3.0%	
1.56	11.3%	6.45	6.47	6.49	6.52	6.55	6.58	6.61	
1.51	11.1%	6.45	6.47	6.49	6.52	6.54	6.58	6.61	
1.47	10.8%	6.45	6.47	6.49	6.51	6.54	6.57	6.61	
1.42	10.6%	6.44	6.46	6.49	6.51	6.54	6.57	6.61	
1.37	10.3%	6.44	6.46	6.48	6.51	6.54	6.57	6.61	
1.33	10.1%	6.43	6.46	6.48	6.51	6.54	6.57	6.61	
1.28	9.8%	6.43	6.45	6.48	6.50	6.54	6.57	6.61	

Source: Warburg Research

### Historic P/B multiples underline current low valuation

Multitude's shares are currently trading at 0.29x the book value of equity, which is historically low, considering the development over the past years. However, we recognize that banks have generally been trading below their book values recently. Our fair value for the share also lies below its book value. The significant discount to book value, however, does not appear to have any basis. Clearly, the loan portfolio should show higher risks than average but this is also reflected by higher impairments, limiting risks of unexpected loan losses. Thus, the current valuation implies additional write-down requirements of about 70% of the net loan portfolio, which does not appear very likely.

#### Price/Book multiple (left) vs. RoE



Source: Warburg Research, Multitude

As becomes visible, Multitude traded up to 8x its book value back in 2015. Even though multiples declined thereafter, the company traded above its book value until 2019.

However, with the outbreak of the pandemic, RoE dropped significantly, explaining the further declining trend of the P/B ratio. Furthermore, the banking sector has recently been exhibiting valuations below book value. With its banking license and lending business, Multitude is justifiably caught in that trend as well. Nonetheless, given its prospects of rising RoE rates, the company deserves to be valued at higher multiples and historic multiples show the high potential of the company if its performance is better than anticipated.

#### A negative EV also underlines the low valuation

Besides the low P/B ratio, the EV is another indicator that Multitude is a bargain at current share price levels. However, due to its bank balance sheet, a slightly modified net debt calculation is applied.

In the balance sheet for 2021, the company had financial liabilities in the amount of EUR 629.5m. The majority of these liabilities are attributable to current and non-current deposits (EUR 484.8m) and short- and long-term borrowings (EUR 141.8m), consisting of outstanding bonds. To calculate the net debt position, we subtract loans to customers (EUR 443.9m) and cash (EUR 301.6m), which together make up 91% of the company's balance sheet.

Overall, Multitude had a net cash position of EUR 116m in 2021. Considering its current market capitalisation of EUR 53m, this results in a negative EV of EUR -63m. As of 6M 2022, the net cash position was EUR 101.6m, resulting in an EV of EUR -48.6m. Basically, every EUR invested in Multitude buys investors around EUR 2 in existing net cash.

## Company

### History

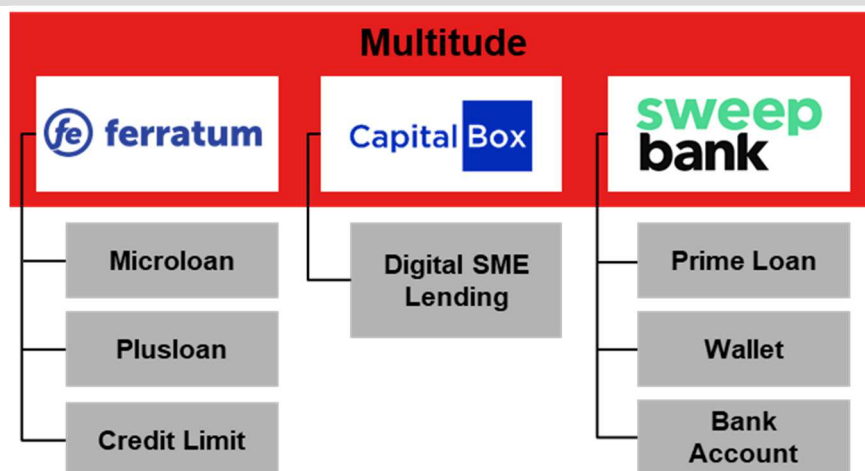
Multitude started out under the Ferratum brand with the vision of a mobile concept for financial services and microloans. Since its inception in 2005, the company has grown steadily, and was able to continuously expand into new markets and broaden its product portfolio.

- 2005: Foundation of Ferratum in Finland
- 2006: Geographic expansion to Sweden and Estonia
- 2009: Active in 11 countries and diversification of product portfolio
- 2012: Ferratum obtains EU banking license
- 2015: IPO at the Frankfurt Stock Exchange with a valuation of almost EUR 400m
- 2016: Initiation of the SME lending business
- 2017: Mobile bank launch and prime loan product expansion
- 2021: Rebranding from “Ferratum” to “Multitude”, a fully integrated platform operating in 19 markets

### Segments

As described earlier in this note, Multitude operates three different segments which offer different types of financial services to consumers and SMEs.

#### Multitude organisational structure

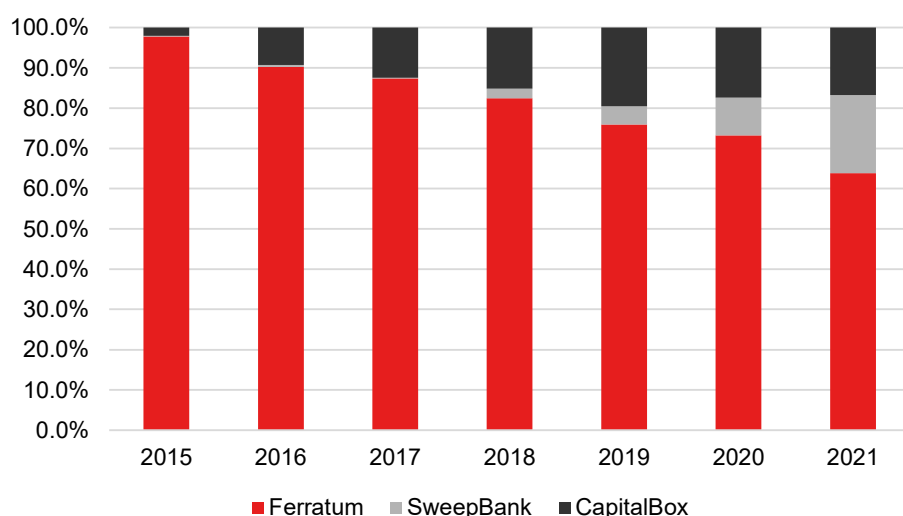


Source: Warburg Research, company information

Ferratum is the most mature business model and responsible for the majority of the current loan portfolio. However, due to the strong growth of CapitaBox and especially SweepBank during the past years, Ferratum’s share of the total loan portfolio recently decreased to just over 60%.



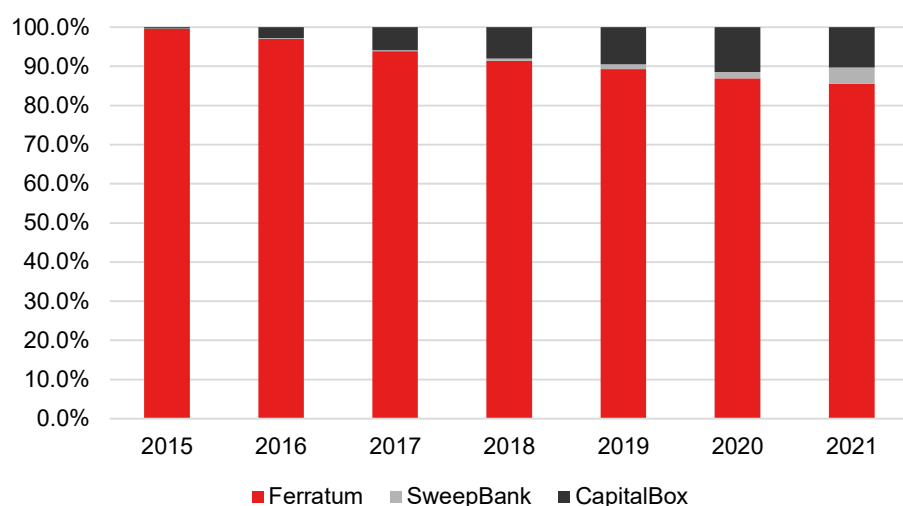
**Loan portfolio development over time**



Source: Warburg Research, company information

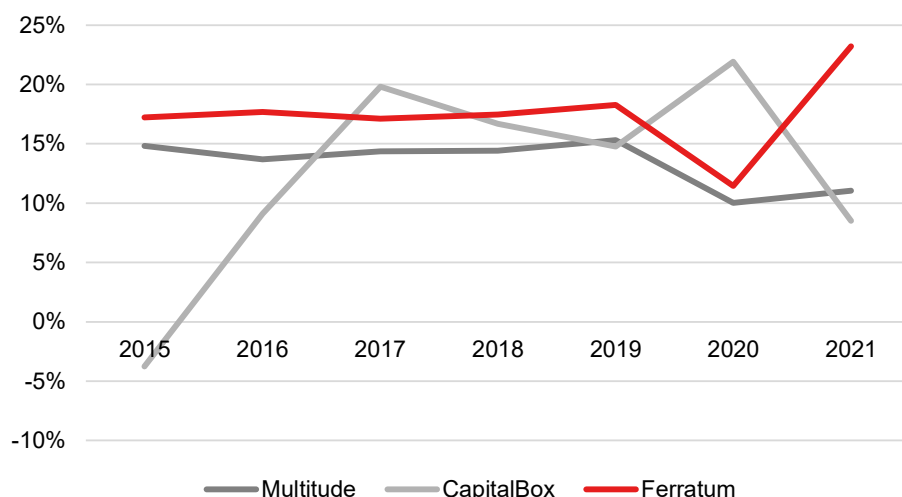
Even though they have gained in importance with regards to the total loan portfolio, the significance of CapitalBox and SweepBank has shown proportionately slower growth when it comes to revenues. The revenue contribution of Ferratum remains at more than 85% in 2021. The other two segments are growing more strongly in terms of volume, but have lower interest margins and are therefore gaining relevance for revenues more slowly.

**Revenue contribution over time**



Source: Warburg Research, company information

Not only has Ferratum been the main contributor to revenue, EBIT too was largely dependent on this segment. CapitalBox turned profitable in 2016 but the basis was still comparatively low. Therefore, the performance of Ferratum still has a relatively high impact on the group EBIT margin, as displayed below.

**EBIT margin development over time**


Source: Warburg Research, company information

For overview reasons, the EBIT margin of SweepBank is not displayed as it is still highly negative. However, as described in the chapter Growth/Financials, we expect the segment to reach breakeven in 2025e.

## Management

### Jorma Jokela (CEO)

CEO and founder of the Multitude, born in 1979. He studied accounting at the Commercial College of Kuopio and the Helsinki Business College, and has an eMBA from IMD Business School in Lausanne, Switzerland. He is the founder of Jokela Capital Oy in Helsinki where he headed the company as CEO from 1998 to 2000. He subsequently sold the Jokela Capital business in 2004. In 2005, he founded Multitude and has been its CEO and member of the Board of Directors since then.

### Lea Liigus (Chief Legal & Compliance Officer)

Lea Liigus, born 1972, is the Head of Legal and Compliance of Multitude. She has been a member of the Board of Directors since 2006. She studied law at the University of Tartu in Estonia and completed Master of Laws (LL.M) Programme in Contract and Commercial Law at the University of Helsinki in Finland. Before she joined Multitude in 2006, she worked as a lecturer in Commercial Law and EU law at the Estonian Business School in Tallinn and, as an attorney-at-law, specialised in commercial, financial law and EU law at Sorainen Law Offices in Estonia.

### Bernd Egger (CFO)

Bernd Egger, born 1971 in Austria, joined Multitude in 2019 as CFO. He is a senior executive with more than 20 years of experience in international banking, finance and corporate development. He was CFO and board member of Paysafecard Group from 2008 to 2015 and a boardmember of Volksbank International Ag from 1999 to 2007. Mr. Egger joined Multitude from mPAY24 GmbH, an Austria-based online payment service provider, which he co-owned and transformed into a profitable, automated payment service provider before selling to a private equity fund. He is also an active investor with a focus on early stage Fintech and e-commerce companies. He holds Masters degrees in Business Administration from Austrian universities and has a Master of Science in Finance from the University of British Columbia in Vancouver.

**Clemens Krause (CRO)**

Dr Clemens Krause, born 1962, joined Multitude in 2012 as CFO and took up the Chief Risk Officer role in 2019 until November 2020. He returned as CRO in January 2022. He has also been a member of the Board of Directors between June 2020 and April 2022. He studied business administration at the Westfälische Wilhelms-Universität in Münster, where he worked from 1989 to 1994, and completed his PhD thesis on Credit Rating with Artificial Intelligence. In 1994, he joined Bankgesellschaft Berlin AG as a manager and director of Project Finance before holding various management positions at companies including Deutsche Bahn, E-Loan Europe, E\*Trade Germany, GE Money Bank and Commerzbank. Since 2008, he has also been CEO and owner of EXCELLENCE Wealth Management GmbH.

**Kornel Kabele (CTO)**

Kornel Kabele, born 1976, is the Chief Technology Officer (CTO) of Multitude. Mr. Kabele joined the company in 2017 as Head of Java Development and has been leading the group's Software Engineering & QA since 2018. Prior to joining Multitude, he worked in First Data Corporation from 2007 to 2017 in various positions - leading the Euro conversion program, Project Management Office, Software Development Life Cycle and Business Intelligence for executive management. From 2005 to 2007 he worked in Erste Bank Group member Slovenska Sporitelna as a Project Manager. He co-founded a web-application development company in 2002 and after finishing studies in 2000 he worked in several new-media companies in Australia and Slovakia on software development positions. Mr Kabele holds a Master's Degree in Architecture from Academy of Fine Arts and Design, Slovakia.

**Kristjan Kajakas (CEO – Ferratum)**

Kristjan Kajakas, born in 1981, joined Multitude in 2010 and is the Tribe CEO for Near-Prime. Before working in his current position, Mr. Kajakas was the company's Regional Director for a number of Eastern European countries. Prior to Multitude, Mr. Kajakas was a Client Executive at AS SEB Bank. He completed his Bachelor's Degree in Business Administration at Tallinn University of Technology in 2008.

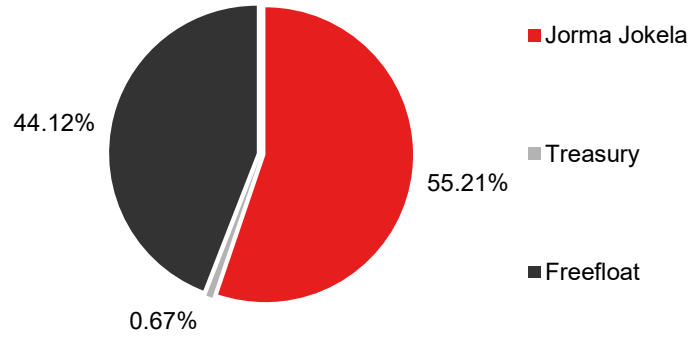
**Julie Chatterjee (CEO – SweepBank)**

Julie Chatterjee has been serving as CCO & Deputy CEO of Ferratum Bank plc since 2020. She holds a Masters in Engineering from Kungliga Tekniska Högskolan in Stockholm and graduated in 2007. She has 16 years of experience within the retail & banking industry. She has hands-on experience from consumer lending, credit card and the insurance business with an exposure to e-banking and mobile banking, while holding numerous positions at OKQ8, including CEO for OKQ8 Bank.

### Shareholders

The founder and CEO of the group, Jorma Jokela, holds 55.21% of the shares of Multitude. 44.12% are free float and the remaining 0.67% are treasury shares.

#### Shareholder composition



Source: Warburg Research, company information

**Residual income model**

Figures in EUR m	Detailed forecast period			Transitional period										TV
	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e	2031e	2032e	2033e	2034e	
Equity beginning of period	169	181	187	205	219	235	251	269	288	308	330	353	378	
Equity end of period	181	187	205	219	235	251	269	288	308	330	353	378	404	
Net income yoy	2	7	17	21	24	26	28	30	32	35	37	39	42	1.5%
Dividends paid	0	1	4	7	8	10	10	11	12	13	14	15	16	42
Payout ratio	0%	38%	59%	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%	100.0%
Return on equity	1.0%	4.0%	8.7%	9.9%	10.7%	10.8%	10.8%	10.9%	10.9%	10.9%	10.8%	10.7%	10.6%	
Cost of Equity	10.6%	10.6%	10.6%	10.6%	10.6%	10.6%	10.6%	10.6%	10.6%	10.6%	10.6%	10.6%	10.6%	
Excess return	-16	-12	-4	-1	0	1	1	1	1	1	1	1	0	
Discount factor	0.98	0.88	0.80	0.72	0.65	0.59	0.53	0.48	0.44	0.40	0.36	0.32	0.29	
Present value	-16	-10	-3	-1	0	0	0	0	0	0	0	0	0	-1
Share of PVs	100%													5%

**Model parameter**

Derivation of Cost of equity:		Derivation of Beta:	
Market return	8.25%	Financial Strength	1.50
Risk free rate	2.75%	Liquidity	1.50
<b>Cost of Equity</b>	<b>10.56%</b>	Cyclicality	1.40
		Transparency	1.30
		Others	1.40
		<b>Beta</b>	<b>1.42</b>

**Valuation (m)**

PV terminal value	-1	No. Of shares (m)	21.58
Sum PVs until 2034e	-28	Value per share	<b>6.51</b>
Current book value	169		
<b>Equity value</b>	<b>141</b>		

**Sensitivity Value per share (EUR)**

Beta	CoE	LTG						
		0.0%	0.5%	1.0%	1.5%	2.0%	2.5%	3.0%
<b>1.56</b>	11.3%	6.45	6.47	6.49	6.52	6.55	6.58	6.61
<b>1.51</b>	11.1%	6.45	6.47	6.49	6.52	6.54	6.58	6.61
<b>1.47</b>	10.8%	6.45	6.47	6.49	6.51	6.54	6.57	6.61
<b>1.42</b>	10.6%	6.44	6.46	6.49	<b>6.51</b>	6.54	6.57	6.61
<b>1.37</b>	10.3%	6.44	6.46	6.48	6.51	6.54	6.57	6.61
<b>1.33</b>	10.1%	6.43	6.46	6.48	6.51	6.54	6.57	6.61
<b>1.28</b>	9.8%	6.43	6.45	6.48	6.50	6.54	6.57	6.61

Source: Warburg Research

Valuation	2018	2019	2020	2021	2022e	2023e	2024e
Price / Book	3.9 x	1.7 x	1.0 x	0.7 x	0.3 x	0.3 x	0.3 x
Book value per share ex intangibles	3.58	4.35	4.02	6.19	6.68	6.99	7.78
EV / Sales	0.9 x	0.3 x	n.a.	n.a.	n.a.	n.a.	n.a.
EV / EBITDA	5.4 x	1.5 x	n.a.	n.a.	n.a.	n.a.	n.a.
EV / EBIT	6.1 x	1.9 x	n.a.	n.a.	n.a.	n.a.	n.a.
EV / EBIT adj.*	6.1 x	1.9 x	n.a.	n.a.	n.a.	n.a.	n.a.
P / FCF	n.a.	32.4 x	1.0 x	1.9 x	n.a.	n.a.	n.a.
P / E	22.1 x	9.1 x	288.1 x	n.a.	33.8 x	7.9 x	3.4 x
P / E adj.*	22.1 x	9.1 x	288.1 x	n.a.	33.8 x	7.9 x	3.4 x
Dividend Yield	0.9 %	1.1 %	n.a.	n.a.	n.a.	1.1 %	7.4 %
FCF Potential Yield (on market EV)	17.3 %	61.7 %	-113.1 %	-769.8 %	-62.5 %	-60.1 %	-53.8 %

\*Adjustments made for: -

**Consolidated profit & loss**

In EUR m	2018	2019	2020	2021	2022e	2023e	2024e
<b>Sales</b>	<b>262</b>	<b>293</b>	<b>230</b>	<b>214</b>	<b>220</b>	<b>240</b>	<b>254</b>
Change Sales yoy	18.3 %	11.8 %	-21.4 %	-7.3 %	3.0 %	8.9 %	6.1 %
Increase / decrease in inventory	0	0	0	0	0	0	0
Own work capitalised	0	0	0	0	0	0	0
<b>Total Sales</b>	<b>262</b>	<b>293</b>	<b>230</b>	<b>214</b>	<b>220</b>	<b>240</b>	<b>254</b>
Material expenses	0	0	0	0	0	0	0
<b>Gross profit</b>	<b>161</b>	<b>170</b>	<b>126</b>	<b>127</b>	<b>131</b>	<b>146</b>	<b>159</b>
<i>Gross profit margin</i>	<i>61.3 %</i>	<i>57.9 %</i>	<i>54.7 %</i>	<i>59.6 %</i>	<i>59.5 %</i>	<i>60.8 %</i>	<i>62.5 %</i>
Personnel expenses	44	44	33	33	34	36	37
Other operating income	0	0	0	2	0	0	0
Other operating expenses	33	31	29	31	29	30	29
Unfrequent items	0	0	0	0	0	0	0
<b>EBITDA</b>	<b>43</b>	<b>56</b>	<b>42</b>	<b>39</b>	<b>44</b>	<b>55</b>	<b>69</b>
<i>Margin</i>	<i>16.4 %</i>	<i>19.2 %</i>	<i>18.2 %</i>	<i>18.4 %</i>	<i>19.9 %</i>	<i>22.8 %</i>	<i>27.0 %</i>
Depreciation of fixed assets	1	3	3	3	3	3	4
<b>EBITA</b>	<b>42</b>	<b>53</b>	<b>39</b>	<b>36</b>	<b>41</b>	<b>51</b>	<b>65</b>
Amortisation of intangible assets	5	8	10	12	13	14	14
Goodwill amortisation	0	0	0	0	0	0	0
<b>EBIT</b>	<b>38</b>	<b>46</b>	<b>29</b>	<b>24</b>	<b>28</b>	<b>37</b>	<b>51</b>
<i>Margin</i>	<i>14.4 %</i>	<i>15.5 %</i>	<i>12.4 %</i>	<i>11.2 %</i>	<i>12.7 %</i>	<i>15.6 %</i>	<i>19.9 %</i>
<b>EBIT adj.</b>	<b>38</b>	<b>46</b>	<b>29</b>	<b>24</b>	<b>28</b>	<b>37</b>	<b>51</b>
Interest income	0	0	1	4	0	0	0
Interest expenses	16	18	23	24	21	23	24
Other financial income (loss)	0	0	0	0	0	0	0
<b>EBT</b>	<b>22</b>	<b>28</b>	<b>6</b>	<b>4</b>	<b>7</b>	<b>15</b>	<b>27</b>
<i>Margin</i>	<i>8.5 %</i>	<i>9.4 %</i>	<i>2.7 %</i>	<i>1.7 %</i>	<i>3.2 %</i>	<i>6.2 %</i>	<i>10.6 %</i>
Total taxes	3	4	1	2	1	3	5
<b>Net income from continuing operations</b>	<b>19</b>	<b>24</b>	<b>5</b>	<b>1</b>	<b>6</b>	<b>12</b>	<b>21</b>
Income from discontinued operations (net of tax)	0	0	-5	-4	0	0	0
<b>Net income before minorities</b>	<b>19</b>	<b>24</b>	<b>0</b>	<b>-3</b>	<b>6</b>	<b>12</b>	<b>21</b>
Minority interest	0	0	0	0	4	5	5
<b>Net income</b>	<b>19</b>	<b>24</b>	<b>0</b>	<b>-3</b>	<b>2</b>	<b>7</b>	<b>17</b>
<i>Margin</i>	<i>7.4 %</i>	<i>8.1 %</i>	<i>0.2 %</i>	<i>-1.2 %</i>	<i>0.7 %</i>	<i>3.1 %</i>	<i>6.7 %</i>
Number of shares, average	22	22	22	22	22	22	22
<b>EPS</b>	<b>0.89</b>	<b>1.10</b>	<b>0.02</b>	<b>-0.12</b>	<b>0.08</b>	<b>0.34</b>	<b>0.79</b>
EPS adj.	0.89	1.10	0.02	-0.12	0.08	0.34	0.79

\*Adjustments made for:

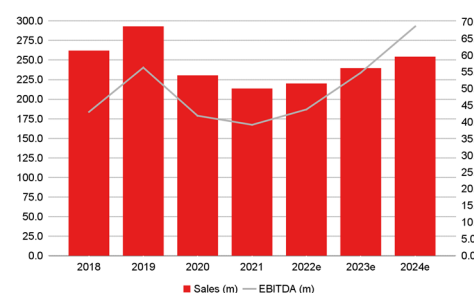
**Guidance: 2022: EBIT of EUR 30m**

**Financial Ratios**

	2018	2019	2020	2021	2022e	2023e	2024e
Total Operating Costs / Sales	83.6 %	80.8 %	81.8 %	81.6 %	80.1 %	77.2 %	73.0 %
Operating Leverage	1.0 x	1.7 x	1.7 x	2.2 x	5.7 x	3.7 x	5.8 x
EBITDA / Interest expenses	2.8 x	3.1 x	1.8 x	1.6 x	2.1 x	2.4 x	2.9 x
Tax rate (EBT)	13.7 %	14.1 %	19.6 %	65.8 %	20.0 %	20.0 %	20.0 %
Dividend Payout Ratio	20.2 %	10.0 %	0.0 %	0.0 %	0.0 %	5.5 %	20.1 %
Sales per Employee	297,895	351,444	331,614	317,019	316,765	337,670	348,469

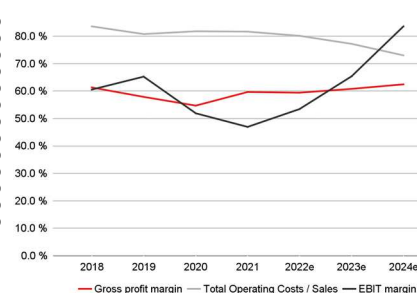
**Sales, EBITDA**

in EUR m

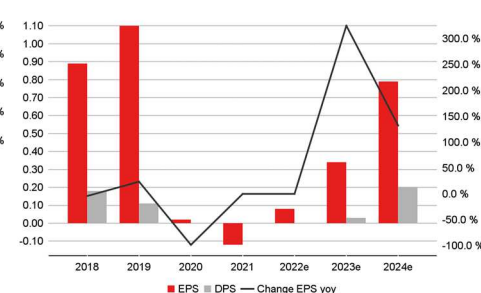


**Operating Performance**

in %



**Performance per Share**



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

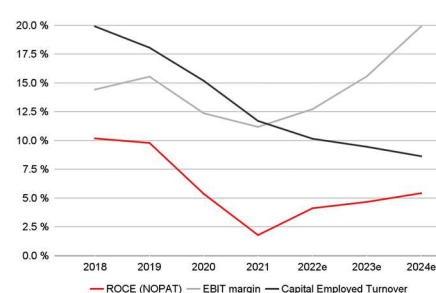
**Consolidated balance sheet**

In EUR m	2018	2019	2020	2021	2022e	2023e	2024e
<b>Assets</b>							
Goodwill and other intangible assets	30	35	39	36	36	36	37
thereof other intangible assets	6	16	16	14	15	15	15
thereof Goodwill	0	0	2	0	0	0	0
Property, plant and equipment	4	4	4	3	4	4	4
Financial assets	10	4	5	6	6	6	6
Other long-term assets	0	7	4	2	5	5	1
<b>Fixed assets</b>	<b>44</b>	<b>50</b>	<b>52</b>	<b>47</b>	<b>51</b>	<b>51</b>	<b>48</b>
Inventories	0	0	0	0	0	0	0
Accounts receivable	8	14	0	0	0	0	0
Liquid assets	116	156	237	302	235	169	147
Other short-term assets	332	399	386	470	554	660	778
<b>Current assets</b>	<b>456</b>	<b>569</b>	<b>623</b>	<b>772</b>	<b>789</b>	<b>829</b>	<b>925</b>
<b>Total Assets</b>	<b>500</b>	<b>619</b>	<b>675</b>	<b>819</b>	<b>840</b>	<b>880</b>	<b>973</b>
<b>Liabilities and shareholders' equity</b>							
Subscribed capital	40	40	40	40	40	40	40
Capital reserve	15	15	15	15	15	15	15
Retained earnings	55	76	74	67	69	76	88
Other equity components	-2	-1	-3	47	57	57	62
Shareholders' equity	107	129	126	169	180	187	205
Minority interest	0	0	0	0	0	0	0
<b>Total equity</b>	<b>107</b>	<b>129</b>	<b>126</b>	<b>169</b>	<b>180</b>	<b>187</b>	<b>205</b>
Provisions	4	5	4	3	3	3	3
thereof provisions for pensions and similar obligations	0	0	0	0	0	0	0
Financial liabilities (total)	366	468	524	630	645	673	743
Short-term financial liabilities	45	48	0	84	84	70	65
Accounts payable	11	5	10	1	2	2	1
Other liabilities	12	11	12	15	10	15	20
<b>Liabilities</b>	<b>393</b>	<b>490</b>	<b>550</b>	<b>650</b>	<b>660</b>	<b>693</b>	<b>768</b>
<b>Total liabilities and shareholders' equity</b>	<b>500</b>	<b>619</b>	<b>675</b>	<b>819</b>	<b>840</b>	<b>880</b>	<b>973</b>

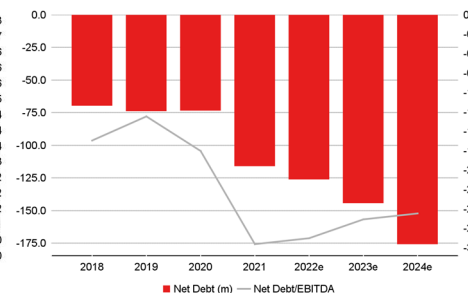
**Financial Ratios**

	2018	2019	2020	2021	2022e	2023e	2024e
<b>Efficiency of Capital Employment</b>							
Operating Assets Turnover	142.2 x	22.4 x	-38.3 x	108.0 x	97.9 x	110.6 x	112.3 x
Capital Employed Turnover	0.7 x	0.7 x	0.6 x	0.4 x	0.4 x	0.3 x	0.3 x
ROA	43.5 %	47.6 %	0.9 %	-5.4 %	3.2 %	14.3 %	35.5 %
<b>Return on Capital</b>							
ROCE (NOPAT)	10.2 %	9.8 %	5.4 %	1.8 %	4.1 %	4.7 %	5.4 %
ROE	18.1 %	20.0 %	0.4 %	-1.7 %	0.9 %	4.0 %	8.7 %
Adj. ROE	18.1 %	20.0 %	0.4 %	-1.7 %	0.9 %	4.0 %	8.7 %
<b>Balance sheet quality</b>							
Net Debt	-70	-74	-73	-116	-126	-144	-176
Net Debt/EBITDA	-1.6 x	-1.3 x	-1.8 x	-3.0 x	-2.9 x	-2.6 x	-2.6 x
Book Value / Share	5.0	6.0	5.8	7.9	8.4	8.7	9.5
Book value per share ex intangibles	3.6	4.3	4.0	6.2	6.7	7.0	7.8

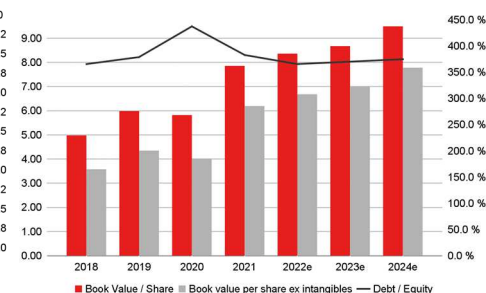
**ROCE Development**



**Net debt in EUR m**



**Book Value per Share in EUR**



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research



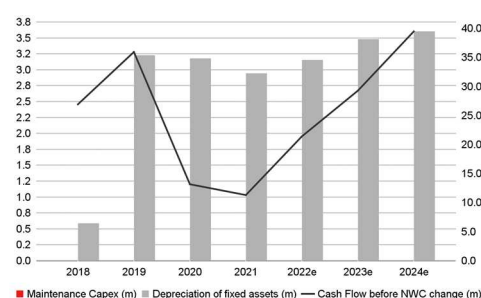
**Consolidated cash flow statement**

In EUR m	2018	2019	2020	2021	2022e	2023e	2024e
Net income	19	24	0	-3	6	12	21
Depreciation of fixed assets	1	3	3	3	3	3	4
Amortisation of goodwill	0	0	0	0	0	0	0
Amortisation of intangible assets	5	8	10	12	13	14	14
Increase/decrease in long-term provisions	0	0	0	0	0	0	0
Other non-cash income and expenses	2	1	-1	-1	0	0	0
<b>Cash Flow before NWC change</b>	<b>27</b>	<b>36</b>	<b>13</b>	<b>11</b>	<b>21</b>	<b>29</b>	<b>39</b>
Increase / decrease in inventory	0	0	0	0	0	0	0
Increase / decrease in accounts receivable	2	-6	-2	-11	0	0	0
Increase / decrease in accounts payable	2	-6	1	-10	0	0	0
Increase / decrease in other working capital positions	0	0	0	0	0	0	0
Increase / decrease in working capital (total)	3	-13	0	-22	0	0	0
<b>Net cash provided by operating activities [1]</b>	<b>-40</b>	<b>20</b>	<b>140</b>	<b>72</b>	<b>-47</b>	<b>-36</b>	<b>-9</b>
Investments in intangible assets	0	0	0	0	-13	-14	-15
Investments in property, plant and equipment	0	0	0	0	-4	-4	-4
Payments for acquisitions	0	0	0	-1	0	0	0
Financial investments	-1	0	-1	-1	0	0	0
Income from asset disposals	0	9	0	0	0	0	0
<b>Net cash provided by investing activities [2]</b>	<b>-17</b>	<b>-5</b>	<b>-14</b>	<b>-14</b>	<b>-17</b>	<b>-18</b>	<b>-19</b>
Change in financial liabilities	0	0	0	0	-2	-12	10
Dividends paid	-4	-4	0	0	0	-1	-4
Purchase of own shares	0	0	0	0	0	0	0
Capital measures	0	0	0	47	0	0	0
Other	0	-2	-2	-2	0	0	0
<b>Net cash provided by financing activities [3]</b>	<b>44</b>	<b>28</b>	<b>-43</b>	<b>7</b>	<b>-2</b>	<b>-13</b>	<b>6</b>
<b>Change in liquid funds [1]+[2]+[3]</b>	<b>-13</b>	<b>43</b>	<b>83</b>	<b>65</b>	<b>-66</b>	<b>-66</b>	<b>-22</b>
Effects of exchange-rate changes on cash	-3	-3	-2	0	0	0	0
Cash and cash equivalent at end of period	116	156	237	302	235	169	147

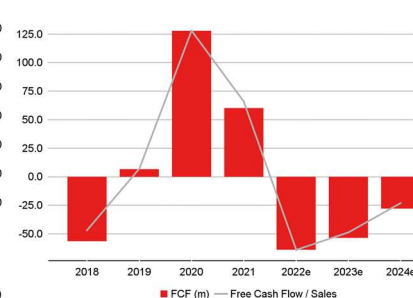
**Financial Ratios**

	2018	2019	2020	2021	2022e	2023e	2024e
<b>Cash Flow</b>							
FCF	-56	7	128	60	-64	-54	-28
Free Cash Flow / Sales	-21.5 %	2.3 %	55.5 %	28.2 %	-29.0 %	-22.3 %	-11.0 %
Free Cash Flow Potential	40	52	36	33	42	52	63
Free Cash Flow / Net Profit	-292.9 %	28.3 %	26416.9 %	-2348.0 %	-3940.9 %	-728.1 %	-164.5 %
Interest Received / Avg. Cash	0.1 %	0.2 %	0.3 %	1.3 %	0.0 %	0.0 %	0.0 %
Interest Paid / Avg. Debt	4.6 %	4.4 %	4.6 %	4.1 %	3.3 %	3.4 %	3.4 %
<b>Management of Funds</b>							
Investment ratio	0.0 %	0.0 %	0.0 %	0.0 %	7.5 %	7.3 %	7.3 %
Maint. Capex / Sales	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Capex / Dep	0.0 %	0.0 %	0.0 %	0.0 %	104.6 %	100.5 %	102.7 %
Avg. Working Capital / Sales	-0.3 %	1.2 %	-0.2 %	-2.7 %	-0.7 %	-0.6 %	-0.6 %
Trade Debtors / Trade Creditors	78.0 %	276.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Inventory Turnover	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Receivables collection period (days)	11	18	0	0	0	0	0
Payables payment period (days)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cash conversion cycle (Days)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

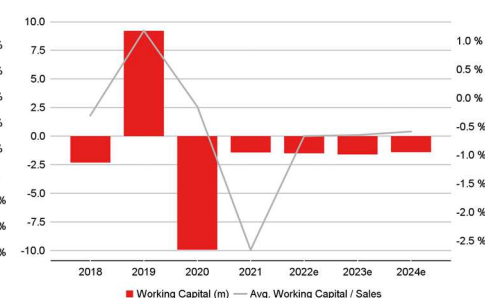
**CAPEX and Cash Flow**  
in EUR m



**Free Cash Flow Generation**



**Working Capital**



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

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Company	Disclosure	Link to the historical price targets and rating changes (last 12 months)
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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-	<b>Buy:</b>	The price of the analysed financial instrument is expected to rise over the next 12 months.
-H-	<b>Hold:</b>	The price of the analysed financial instrument is expected to remain mostly flat over the next 12 months.
-S-	<b>Sell:</b>	The price of the analysed financial instrument is expected to fall over the next 12 months.
“-“	<b>Rating suspended:</b>	The available information currently does not permit an evaluation of the company.

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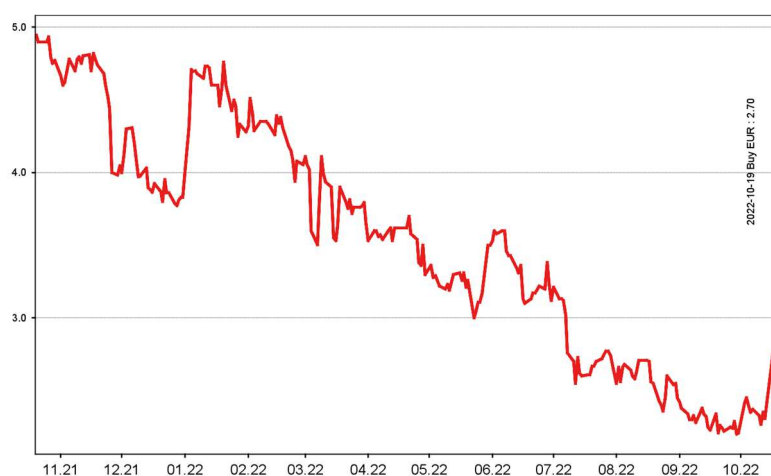
Rating	Number of stocks	% of Universe
Buy	161	75
Hold	46	21
Sell	4	2
Rating suspended	4	2
<b>Total</b>	<b>215</b>	<b>100</b>

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

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

Rating	Number of stocks	% of Universe
Buy	45	80
Hold	8	14
Sell	1	2
Rating suspended	2	4
<b>Total</b>	<b>56</b>	<b>100</b>

## PRICE AND RATING HISTORY MULTITUDE AS OF 19.10.2022



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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