

Research Report (Anno)

UmweltBank AG



- Transformation process "umwelt.neo" makes the Bank future proof -
 - Two transitional years expected -
 - Growth is expected again from 2025 onwards -

Target price: € 14.40

Rating: BUY

IMPORTANT NOTICE:

Please note the disclaimer/risk notice as well as the disclosure of possible conflicts of interest pursuant to § 85 WpHG and Art. 20 MAR from page 23

Notice pursuant to MiFID II regulation for research "Minor Non-Monetary Contribution": This research meets the requirements for classification as "Minor Non-Monetary Contribution". For further information, please refer to the disclosure under "I. Research under MiFID II".

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UmweltBank AG*1;4;5a;6a;7;11

Rating: BUY

Target price: € 14.40 (previously: € 14.65)

Current rate: € 11,20 17.07.23 / XETRA / 09:02 am

Currency: EUR

Master data:

ISIN: DE0005570808 WKN: 557080 Ticker symbol: UBKG Number of shares³: 35.44 Market cap³: 396.93 ³ in million / in EUR million Free float: 85%

Transparency level: Open market Market segment: m:access Accounting: HGB

Financial year: 31.12.

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Company profile

Industry: Financial services

Focus: ecological investments, financing environmentally friendly projects

Employees: 332 (31.12.2022)

Foundation: 1997

Company headquarters: Nuremberg

Board of Directors: Goran Bašić, Jürgen Koppmann; Heike

Schmitz



UmweltBank AG stands for banking with ecological and social responsibility. It offers investors transparent ecological financial investments and supports private individuals and commercial customers throughout Germany by financing environmentally friendly projects. By exclusively offering a green product range, Umwelt-Bank AG consistently implements its ecological orientation. In addition to a classic savings account, the company offers, among other things, green fund products, enters into ecological endeavours, offers ecological insurance and finances green projects. In doing so, UmweltBank AG acts as a direct bank, without the classic branch business. Since its founding in 1997, it has supported almost 25,000 credit projects. At the end of 2022, environmental loans (including open commitments) had a total volume of 3.7 billion euros. The majority of the loan volume consists of solar energy financing, residential real estate and wind power projects.

P&L in € million	FY 2022	FY 2023e	FY 2024e	FY 2025e
Interest income	74.40	80.23	84.99	99.31
Interest result	58.79	49.81	53.25	64.63
Other income	27.48	20.50	14.50	15.00
Result before taxes	39.21	20.84	31.02	43.70
Result after taxes	30.55	14.17	21.09	29.71

Key figures in EUR				
EPS	0.86	0.40	0.59	0.83
Dividend per share	0.33	0.16	0.24	0.33

Balance sheet key figures in € million				
Customer deposits	3,176.40	3,342.52	3,482.28	3,702.90
Credit volume	3,139.03	3,209.03	3,279.03	3,429.03
Total capital	528.90	537.40	550.06	567.89
Return on investment (before taxes)	9.7%	5.1%	7.3%	9.9%
Cost-income ratio	58.0%	73.7%	60.3%	52.7%

Financial Calendar

07.08.2023: Half-year figures 2023

**last research from GBC:

Date: Publication / Target price in EUR / Rating
27.02.2023: RS / 14.65 / BUY
09.11.2022: RS / 16.00 / BUY
22.08.2022: RS / 16.30 / HOLD
04.07.2022: RS / 17.20 / HOLD

^{**} The research studies listed above can be viewed at www.gbc-ag.de or requested from GBC AG, Halderstr. 27, D86150 Augsburg.

^{*} Catalogue of possible conflicts of interest on page 24



EXECUTIVE SUMMARY

- In the past financial year 2022, UmweltBank AG was able to further expand its business volume to € 6,602.1 million (31.12.21: € 6,451.0 million), even in a difficult market environment. The basis for this increase is the newly granted loans in the amount of € 623 million (previous year: € 845 million), which increased the outstanding loan volume to € 3,139.03 million (31.12.21: € 3,072.52 million) and therefore to a new record value. The decreasing dynamics in the volume of new loans is primarily due to a decline in demand in the area of private construction financing, i.e. it is a consequence of the more expensive financing on the one hand and the still high price levels on the other. New loans also decreased in the renewable energy sector, although this also includes the postponement of loans to the current financial year in the amount of € 170 million.
- Based on the expanded loan portfolio, interest income increased to € 74.40 million (previous year: € 70.90 million), the interest result, on the other hand, declined to € 58.79 million (previous year: € 63.24 million). This includes a further reduction of the interest margin to 1.07% (previous year: 1.21%). On the one hand, higher interest rates can be enforced for new loans, but the extensive loan portfolio only leads to a delayed adjustment of interest rates instead. On the other hand, the interest rate increases have made liabilities, which mainly consist of short-term deposits, more expensive. In addition, part of the TLTRO funds at favourable interest rates were repaid.
- In contrast to the decline in net interest income, UmweltBank AG recorded a significant
 increase in net commission income and other income to a total of € 34.55 million (previous year: € 12.60 million). The sale of an investment in a wind farm company, which
 generated net proceeds of approximately € 20 million, played a special role in this
 development.
- With an EBT of € 39.21 million (previous year: € 38.09 million), UmweltBank AG met expectations. The only slight increase in earnings compared to the significant rise in total income is a result of higher administrative expenses, which include costs for the change of the core banking system (€ 3.6 million) as well as increased expenses from the continued expansion of the workforce. Another factor that led to the increase in costs was the higher allocations to risk provisions for customer loans, which at € 9.29 million (previous year: € 3.26 million) were significantly above the previous year's level.
- The UmweltBank management considers the current and coming financial years 2023 and 2024 as transitional years, which will be characterised by a declining development of the interest result and increasing expenses. For the current financial year, the Board of Management expects EBT before the formation of reserves to amount to approximately € 20 million. As in the previous business year, proceeds from disposals are expected to contribute significantly to this. Although an increase in the volume of new loans is expected, net interest income should decrease significantly due to the expected decline in the interest margin. Here, too, the effect that interest rate increases being passed on more quickly on the deposit side plays an important role. In addition, the expiry of the ECB's special corona conditions will lead to a further increase in the cost of financing. A noticeable improvement in the interest margin is not expected until 2025.
- The decline in net interest income is to be offset by an increase in net commission
 income and net trading income. The expansion of sales activities for own funds of the
 "UmweltSpektrum" brand as well as an expansion of the issuing business should contribute to this. In addition to the planned increase in awareness of this brand, investments in green projects are also to be expanded, so that the contribution to income



and results of business outside of lending, i.e. in the business segments "securities business" and "investments", should increase. We expect a decline in income from disposals and thus a decline in other income, so that overall a declining income picture should prevail.

- On the cost side, the migration costs to the new core banking system, for which investments of around € 10 million are estimated for 2023 and around € 4 million for 2024, are likely to lead to an increase in administrative expenses. In addition, the expansion of the workforce is to be continued. In this respect, the company is undergoing a transformation process in the financial years 2023 and 2024, at the end of which a modern IT infrastructure will be in place from 2025 and more employees will be employed at the new company headquarters "UmweltHaus". Finally, from 2025 onwards, significant improvements in earnings and results are to be generated, also against the background of the then-increasing interest margin.
- For the financial years 2023 and 2024, we expect net interest income of € 49.81 million (2023) and € 53.25 million (2024), which should be below the level of the past two financial years. We do not expect a noticeable increase in the financial result until 2025, driven in particular by an increase in the interest margin and lending. We assume a visible reduction in other income (including commission income) due to the decline in proceeds from disposals, before rising income from investments and securities should lead to an increase from 2024.
- Due to the strong increase in administrative expenses, which include both the higher personnel expenses and the increased transformation costs, we forecast a pre-tax result (before the formation of reserves) of € 20.84 million for the current financial year, which is in line with the company's guidance. After another year of transformation, the pre-tax result should not be above the level of the previous financial years until the 2025 financial year.
- We have valued UmweltBank within the framework of a residual income procedure. The sum of the discounted residual income results in a value of € 14.40 million (previously: € 14.65 million) per share. The price target reduction is exclusively a consequence of the increased cost of equity capital of 4.97% (previously: 4.20%), resulting from an increase in the risk-free interest rate and the company-specific beta. At a current share price of € 11.20, we continue to give the rating BUY.



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ESG ANALYSIS

ESG/Sustainability Check

In addition to increasing regulatory aspects (keyword: EU taxonomy, disclosure regulation, etc.), the topic of sustainability has another, no less important dimension for CEOs: today, sustainability and transparency play a supporting role in the valuation of a company on the capital market and are decisive for the investment decisions of institutional investors - both for shares and bonds. Against this background, we subjected **UmweltBank AG** to a sustainability check based on our standardised and proprietary sustainability questionnaire in order to create a company-specific ESG profile and to screen concrete sustainability-oriented corporate activities.

ESG profile: Sustainability-oriented business and management activities of the company

E - Contribution to environmental and climate protection (sustainability management)

- UmweltBank exclusively finances projects and invests in companies (impact investing) that contribute to one or more of the 17 UN sustainability goals and at the same time do not violate its own exclusion criteria.
- Sustainable investment: according to Article 9 of the EU Disclosure Regulation, UmweltSpektrum funds belong to so-called dark green funds. These are only made up of financial products that demonstrably make a positive contribution to the UN's sustainability goals.
- Since 1997, the company has already financed around 25,000 environmental projects ranging from sustainable construction to renewable energy.
- ❖ The bank's operations saved approx. 1,160,000 tonnes of CO₂ in 2022 alone.
- Energy efficiency systems/concepts are used and IT equipment has been converted to green IT hardware equipment.
- UmweltBank supports environmental organisations.
- Sustainable furniture, pens, paper, etc. are used for office equipment.
- All products offered to customers meet sustainability criteria

S - Measures for a sustainable working environment and staff development

- Awarded the "Fair Company 2023" seal of quality in the area of junior staff development. This makes UmweltBank one of the companies that offer young acadhttps://www.umweltbank.de/aktuelles/auszeichnungenemics, in particular, a challenging and development-oriented working environment.
- Extensive range of free training and education opportunities such as IT training, language courses and other needs-based support and further education measures for employees
- Child support such as daycare centre allowance or childcare allowance
- Flexitime / flexible working hours
- Part-time positions for employees
- Home office / remote work
- Health offers, such as back-training programmes or stress seminars
- Free public transport for employees
- High proportion of women in management positions (44%)
- No sales-related commissions, which means that customer service is offered without conflicts of interest







G - Corporate Governance (Sustainable Corporate Governance)

- The company is a member of the "Global Alliance for Banking on Values". This is an international network of leading sustainability banks. The aim of the organisation is to make the banking system more transparent and sustainable.
- UmweltBank AG is fully committed to the ten principles of the UN Global Compact.
- The bank's business model is fully aligned with environmental protection and sustainability. Accordingly, the Executive Board manages the company not only through financial KPIs, but also through environmental-guarantee fulfilment.
- Renewed distinction as a sustainable investment: the company again received a "Prime" B+ rating in the ISS-ESG sustainability rating for the 2021 financial year. This makes UmweltBank one of the pioneers in the "Financials/Specialised Finance" sector.

UmweltBank AG is a pioneer in the field of sustainability-oriented project financing (environmental and climate protection) and impact investing (sustainable investment). The elementary consideration of sustainability factors in project financing and in the investment process within the framework of sustainable investment ensures "green" and cycle-oriented capital flows, with impact within the framework of the UN's announced climate and environmental goals. The company is therefore fully focused on environmental protection and sustainability.

SDG Reference

Company-specific contribution to the 17 UN sustainable development goals (excerpt)

UmweltBank AG makes a significant contribution to Goals 5, 7, 11, 12 and 13. Thus, the company actively contributes to the fulfilment of **five of the 17** UN sustainability goals. It is thus clear that the consideration of sustainability aspects is an essential part of their business model and corporate strategy and that the topic of sustainability has an immanent significance in the orientation of the business activities (financial sector) of UmweltBank AG.



IMPACT: As a pioneer in the field of sustainable investing (green investing), UmweltBank AG makes a significant contribution to the following three UN sustainable development goals.





7. Affordable and clean energy - "ensuring access to affordable, reliable, sustainable and timely energy for all".



More than half (54%) of the project financing realised relates to projects in the field of renewable energies (solar energy, wind and hydropower as well as biomass and heating concepts). In this context, UmweltBank alone financed more than 9% of their Germany-wide expansion in the area of photovoltaics (systems larger than 500 kWp) in 2022. Overall, the company has already financed more than 13,000

photovoltaic projects, including, for example, the Lauterbach solar park in Hesse. Covering an area of 80 football pitches, the plant in Hesse will generate green electricity and, thus, clean energy in the future, helping to bring about energy transition.

11. Sustainable cities and communities - "making cities and settlements inclusive, safe, resilient and sustainable".



In addition to the thematic area of renewable energies, project financing is carried out from the area of affordable and ecological construction (44%). In 2022, affordable housing for more than 1.000 people and childcare places for over 350 people were financed by UmweltBank AG. In this way, the company has made a significant contribution to providing people with secure access to affordable housing and, thus, sustain-

ably increasing the resilience of cities and communities. In addition, financing activities in the area of affordable and ecological construction strengthen sustainable urban planning. For example, UmweltBank AG is financing the "Villa Viva" project. The sustainable hotel of the non-profit organisation Viva con Agua de St. Pauli is being built in the centre of Hamburg. In addition to high ecological standards during construction, future hotel guests will support worldwide water projects with every overnight stay.

13. Climate action - "take urgent action to combat climate change and its impacts".



An integral part of UmweltBank AG's business model is to promote and finance environmental protection and climate protection projects. Therefore, this financial institution is fully oriented towards environmental protection and sustainability. In this context, an environmental management system in accordance with EMAS guidelines has been implemented, which collects and evaluates annual data on core indicators

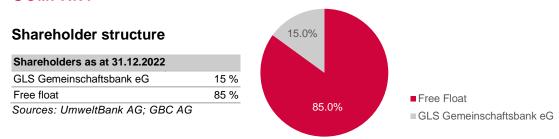
such as energy efficiency, water, waste, biodiversity or material efficiency and ultimately evaluates CO_2 emission data. Within the framework of EMAS, improvements in environmental performance are determined annually. In 2022, 1,160,000 tonnes of CO_2 have been saved.

In addition, energy demand is primarily covered by green electricity and district heating. Especially when it comes to energy procurement, the company attaches great importance to keeping environmental impact as low and energy-efficient as possible. The electricity required is sourced 100% from renewable energy sources.

In summary, UmweltBank AG makes an active contribution to achieving the UN's sustainability goals. This ensures an investment in a sustainably-operating company and is thus well suited for a sustainability-oriented (ESG-compliant) portfolio. UmweltBank offers investors the opportunity to actively invest in the rapidly growing segment of sustainable investment and impact investing. In this context, the increased environmental awareness and intact sustainability management of UmweltBank AG represents an ideal ESG/impact investment.



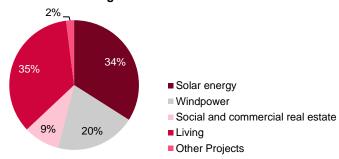
COMPANY



Ecological core idea

UmweltBank AG is the only bank in Germany to have anchored the ecological aspect of its business activities in its statutes. UmweltBank focuses on solar energy, wind and water power as well as low-energy construction. In this context, UmweltBank AG invests exclusively in sustainable projects and all third-party products offered to customers must be ecologically or socially oriented. Accordingly, for example, both ecological and economic aspects play an important role in the credit decision, whereby a self-developed environmental rating is applied:

Structure of the lending business as at 31.12.2022



Sources: UmweltBank AG; GBC AG

As the customer deposits are used entirely for the financing and promotion of environmental projects, there is an environmental guarantee. This states that every euro of customer deposits will be used in the sense of the SDGs. The bank issues an environmental guarantee and ensures that the savings deposits and equity capital are used exclusively for loans to promote environmental projects.

Product range

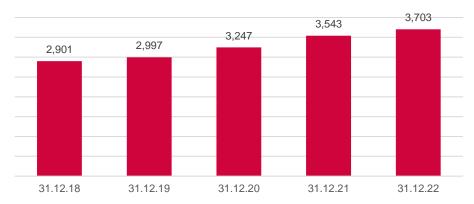
The **Investment & Provision** division, in which the savings, investment and insurance products of UmweltBank AG are bundled, represents the source of funds for the financing side. Particular emphasis is placed on overnight deposits in the UmweltFlex account. Overnight deposits amounted to € 2,172.89 million as of 31 December 2022. In addition to this flexibly available green overnight deposit account, the company offers savings deposits with an outstanding volume of € 809.94 million as at 31.12.2022.

The **financing area**, i.e. the assets side of the credit institution, primarily contains loans that must also fulfil an ecological purpose. In addition, construction financing also includes social aspects and thus, for example, building communities, multi-generation houses, fair investor projects or student housing are the focus of UmweltBank AG. Tailor-made financing solutions are also offered for wind power projects (individual plants, repowering, replacement of old financing) and photovoltaic projects (new projects, financing of portfolios, repowering, replacement and restructuring of old financing). UmweltBank AG's team of



advisors has particularly strong expertise in these three segments. It should be emphasised that UmweltBank AG's loans are generally secured by extensive collateral. In addition to the collateralisation of real estate financing, for example, assignments of future revenues are used as collateral for the projects.

Environmental loans* (in € million)



Sources: UmweltBank AG; GBC AG; * incl. open commitments

In addition to classic debt financing, UmweltBank AG participates in ecological and socially responsible projects through its wholly-owned subsidiary UmweltProjekt AG in accordance with its statutes and thus acts as an equity investor.

At the beginning of February 2020, UmweltBank AG launched its first sustainable mixed fund, the **UmweltSpektrum Mix.** The focus of this fund is in particular on sustainable assets, in accordance with the sustainability approach anchored in the articles of association of UmweltBank AG. The assets are mainly listed shares in companies that contribute to the United Nations' 17 Sustainable Development Goals (SDGs).

Since 2022, the family of environmental spectrum funds has been supplemented by two new funds, the **UmweltSpektrum Natur** and the **UmweltSpektrum Mensch**. The sustainability concept is also at the forefront of these two funds. While the UmweltSpektrum Natur fund aims to make an active contribution to environmental protection, the UmweltSpektrum Mensch fund addresses issues such as "health and well-being", "no poverty" and "no hunger". As of 31.12.2022, the three funds of the brand UmweltSpektrum brand had raised a total fund volume of around € 131 million.



MARKET AND MARKET ENVIRONMENT

The business development of UmweltBank AG depends primarily on the general interest rate environment, which significantly influences both the willingness to lend and the demand for loans. Based on its exclusive lending activities in the areas of wind energy, solar energy and ecological-social construction, UmweltBank AG is also exposed to other specific market influences.

General interest rate environment

The European Central Bank has raised the key interest rate in response to the rise in the inflation rate since the start of the war in Ukraine, which most recently remained at a high level of 6.1% (source: Federal Statistical Office) in May. Since July 2022, the ECB has raised the key interest rate significantly from 0.00% to 4.00% in eight steps. The interest rate at which banks can deposit money with the ECB is currently 3.50%.

In principle, the adoption of the ECB's low interest rate policy means more expensive refinancing for UmweltBank AG on the one hand, but this should be passed on to customers in new business or follow-up financing. Thus, in an environment of rising interest rates, an increase in the historically low interest margin can be expected. In this low interest rate environment, for example, the interest margin of the German savings banks fell to 1.31% in 2021. In 2007, before the beginning of the financial crisis, it had been 2.06% (source: Deutsche Bundesbank).

However, the development of the borrower sectors is likely to be of high relevance for UmweltBank AG's new business.

Development of the most important borrower sectors

In line with the structure of the lending business, the sectors primarily addressed by UmweltBank AG are the ecologically oriented areas of solar energy, wind power as well as the financing of ecological owner-occupied homes, building communities and rental and commercial real estate.

Ecological and social housing

As of the balance sheet date 31 December 2022, UmweltBank AG accounted for around 35% of its total outstanding loan volume in the area of sustainable real estate. Here, the company finances ecological and affordable housing and is a leading financier of building communities, i.e. non-profit housing projects.

Especially in the area of private customers, the real estate financing segment was characterised by a visible decline in demand, which had led to a lower volume of new business at UmweltBank AG in 2022. The overriding factor for this development was the sharp increase in financing costs. Following the adoption of the ECB's zero interest rate policy, the effective interest rate for secured housing loans with a fixed interest rate of at least 10 years rose to 3.62% (provisional value for April 2023), according to Bundesbank statistics.

In addition, the entire construction industry was characterised by bottlenecks in personnel and materials as well as an increase in construction costs. Within one year (February 2022 to February 2023), the construction prices of conventionally-manufactured residential buildings increased significantly by 15.1%. According to data from the Federal Statistical Office, double-digit growth rates have now been recorded in the construction price index for seven quarters in a row.



The interplay of economic uncertainty, rising interest rates and the increase in construction costs led to a significant slump in demand for loans. The new business volume of residential construction loans to private households with a fixed interest rate period of more than 10 years was significantly below the previous year's value in 2022 at € 113.5 billion (previous year: € 135.8 billion). Especially in the second half of 2022, there was a strong decline in demand, which also continued into the first months of 2023. In January and February 2023, the volume of new business plummeted to € 9.3 billion (previous year: € 25.3 billion) compared to the same period of the previous year.

As there are no significant changes in sight for the current market specifications, an unchanged weakness in the volume of new business is to be assumed for the current financial year 2023. This could also extend to the area of institutional investors, where Umwelt-Bank AG has so far not experienced a sharp drop in demand.

Photovoltaics

Compared to the real estate sector, the growth trend in the solar industry continued in 2022. With a newly installed capacity of around 7.5 GW, the previous year's figure of 5.0 GW was again exceeded in 2022 and the gap to the previous record year of 2012, when 8.2 GW were installed, was almost closed. At the end of 2022, photovoltaic systems with a nominal capacity of 67.4 GW were connected to the grid in Germany, and with gross electricity generation of 61.9 TWh, photovoltaics covered more than 10% of gross electricity consumption in Germany.

Obviously, the policy of the past few years, which was aimed at increasing PV construction, has led to an acceleration of the expansion. For the coming years, this trend should be even further strengthened. According to the Bundestag resolution from July 2022, in which the EEG 2023 was passed, at least 80% of electricity consumption in Germany should come from renewable energies by 2030. This means that a doubling of this share is to be implemented within just ten years.

To achieve this goal, the expansion path for solar is to be increased to 22 GW per year, which roughly corresponds to a tripling of the newly installed capacity in 2022. By 2030, PV plants with an installed capacity of 215 GW are to be connected to the grid. In addition to the accelerated approval procedures and the expansion of possible installation areas, higher tender volumes, higher remuneration rates for solar installations or an expansion of the eligibility of installations were defined, for example, in order to achieve the expansion path. Against this background, UmweltBank AG should receive high demand for solar project financing in the future.

Wind energy

In the EEG 2023, the framework conditions for the expansion of wind energy were also newly agreed. Wind energy plays an essential role in the expansion of renewable energies. Already today (as of February 2023), gross wind power generation amounts to 122.6 TWh, which corresponds to a share of 24.1% of gross electricity consumption in Germany. This makes wind energy the second most important energy source in Germany, surpassed only by lignite-based electricity generation, which covered 33.3% of energy demand in 2022.

According to the EEG 2023 amendment, the installed capacity of onshore wind energy should reach 115 GW by 2030. Based on the installed capacity of 58.1 GW at the end of 2022, this would amount to an annual addition of over 8 GW. In order to achieve this quite ambitious target, especially in view of the values achieved in recent years (newly installed capacity in 2022: 2.4 GW), the German government has adopted a number of measures. These include subsidies for wind expansion in less windy locations (e.g. southern Germany) or the further development of the financial regulation for the participation of



municipalities. In addition, wind projects of citizens' energy companies should no longer have to participate in tenders, but automatically receive remuneration. With the "Wind Energy on Land Act", planning and approval procedures are to be accelerated and the federal states are to be given area targets for the expansion of wind energy. By 2032, the federal states will have to have designated 2% of the federal territory for wind energy. Currently, only 0.8% of the land in Germany has been designated for the construction of wind turbines.



BUSINESS DEVELOPMENT 2022

in € m	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Interest income	69.69	70.98	69.08	70.90	74.40
Interest expenses	18.45	19.98	16.97	7.66	15.61
Interest result	51.23	51.00	52.10	63.24	58.79
Commission income	2.45	3.75	3.92	6.34	7.49
Commission expenses	0.19	0.20	0.28	0.91	0.42
Commission result	2.26	3.55	3.63	5.43	7.08
Current income*1	3.52	8.12	11.23	7.16	27.48
Administrative expenses	17.76	21.64	27.07	33.67	41.45
EBT*2	37.31	37.61	37.85	38.09	39.21
EAT*2	25.34	25.92	26.50	25.37	30.55

Sources: UmweltBank AG; GBC AG; 1 from shares, participations and shares in affiliated companies; other income; 2 before allocation to the fund for general banking risks

Income development 2022

In February 2023, UmweltBank AG had already announced the preliminary figures for the past financial year, which have now been confirmed in the annual report. As already announced, the bank was able to further increase its business volume by 2.3% to \in 6,602.1 million (31.12.21: \in 6,451.0 million) even in the difficult environment of the past financial year. The business volume also includes off-balance sheet items such as irrevocable loan commitments. On the assets side, this increase is based in particular on the 2.2% rise in outstanding loans to \in 3,139.03 million (31.12.21: \in 3,072.52 million), which means that UmweltBank AG has once again achieved a new historical record. Viewed over the long term, i.e. over a period of five financial years, the loans granted increased highly dynamically with a CAGR of 6.7%.

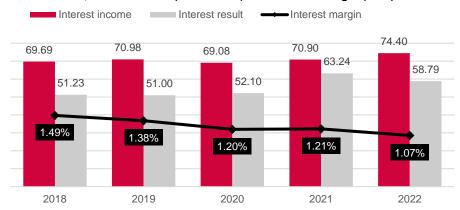
Although the new loan volume of around € 623 million (previous year: € 845 million) has lost momentum, this must be viewed against the background of the challenging situation in the main customer industries. First and foremost, there was a decline in demand in the area of private construction financing as a result of more expensive financing on the one hand and the continuing high purchase price levels on the other. This led to a noticeable decline in demand, especially in the second half of the year. A decline in new lending was also evident in real estate project financing, where a new business volume of € 349 million (previous year: € 412 million) was achieved.

A similar picture emerges in the area of renewable energies (photovoltaics and wind power), where new loans amounting to € 254 million (previous year: € 421 million) were granted. However, this also includes a special effect in connection with project postponements to the current financial year 2023, with a new loan volume of more than € 170 million.

Although the sector-specific challenges are reflected in a declining volume of new loans, the existing, long-term and always fully collateralised loans are a good basis for the recurring income of UmweltBank AG. As shown, the economic environment had only led to a declining growth dynamic of business volume. The resulting expansion of the loan portfolio led to an increase in interest income to € 74.40 million (previous year: € 70.90 million). However, after deducting interest expenses of € 15.61 million (previous year: € 7.66 million), the bank reported a decline in net interest income to € 58.79 million (previous year: € 63.24 million).



Interest income, interest result (in € million) and interest margin (in %)

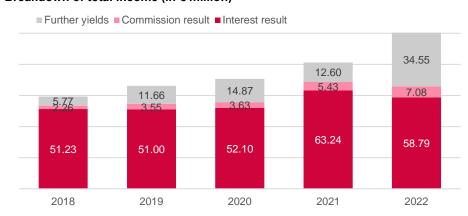


Sources: UmweltBank AG; GBC AG

The decline in net interest income is mainly due to a further reduction in the interest margin to 1.07% (previous year: 1.21%). Rising interest rates usually have a positive impact on the earnings development of credit institutions, but this effect only takes place with a time lag at UmweltBank AG. While the loan portfolio has a longer-term fixed interest rate and reacts correspondingly sluggishly to interest rate adjustments, the interest rate increases have made the short-term deposit side more expensive more quickly. In addition, some of the so-called TLTRO funds, i.e. particularly low-interest refinancing funds made available by the ECB, were repaid, which made the refinancing side more expensive on average. The repayment of these funds had taken place after an adjustment of the conditions by the ECB.

In contrast to the decline in net interest income, UmweltBank AG achieved a significant increase in net commission income and other income to a total of \in 34.55 million (previous year: \in 12.60 million). The sale of a stake in a wind farm company, which generated net proceeds of approximately \in 20 million, played a special role in this development. The breakdown of total income is as follows:

Breakdown of total income (in € million)



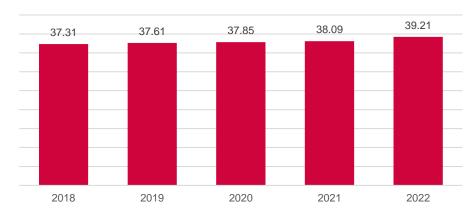
Sources: UmweltBank AG; GBC AG



Costs and earnings development 2022

Following the sale of the wind farm, the UmweltBank management had forecast EBT of approximately € 40 million in October 2022. With an EBT of € 39.21 million (previous year: € 38.09 million), the guidance, which was adjusted during the year, was largely met.

EBT before allocation to the fund for general banking risks (in € million)



Sources: UmweltBank AG; GBC AG

The fact that there was only a slight increase in earnings despite the significant rise in total income is due in particular to the increase in total costs (excluding additions to the fund for general banking risks, taxes, interest expenses, commission expenses) to € 54.14 million (previous year: € 37.75 million). The increase in other administrative expenses to € 21.57 million (previous year: € 16.51 million), which include increased expenses (€ 3.6 million) in connection with the change of the core banking system, had a significant share in this. Parallel to this, personnel expenses increased noticeably to € 19.88 million (previous year: € 17.15 million). On the one hand, this is due to the continued expansion of the workforce to 332 (31.12.21: 299). This is to be understood as preparation for the planned expansion of business activities. In addition, the preparatory measures for the change of the core banking system also resulted in a higher commitment of personnel capacities. Finally, salary adjustments for the existing staff also led to an increase in personnel expenses.

Another factor that led to the increase in costs was the higher additions to risk provisions for customer loans, which at \in 9.29 million (previous year: \in 3.26 million) were significantly above the previous year's level. This strong increase is not due to increased loan defaults, but to a one-off effect. Due to new accounting requirements, the calculation of the necessary general loan loss provisions changed, which led to a one-time adjustment affecting the result.

According to the company, the cost-income ratio was significantly higher than in the previous year at 50.4% (previous year: 45.8%). UmweltBank AG usually has a significantly lower value here, which averaged 35.7% between 2016 and 2021. The increase in the cost/income ratio in the past few financial years has been due in particular to investments in personnel and digitalisation.



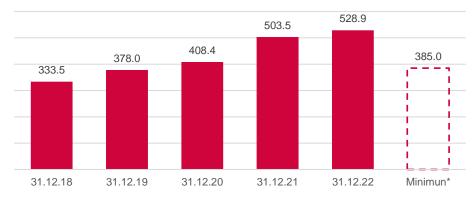
Balance sheet and financial situation as at 31.12.2022

in € m	31.12.18	31.12.19	31.12.20	31.12.21	31.12.22
Balance sheet total	3,699.12	4,095.05	4,944.37	5,927.80	5,980.61
Balance sheet equity	119.19	150.56	162.89	245.12	256.50
Regulatory capital	333.5	378.0	408.4	503.5	528.9
thereof hard core capital	221.2	260.4	275.2	366.6	385.4
thereof additional core capital	32.6	30.9	28.8	27.1	25.4
thereof supplementary capital	79.7	86.7	104.4	109.8	118.1
Total capital ratio	14.0%	14.5%	14.6%	14.0%	16.5%
Core capital ratio	10.7%	11.2%	10.9%	10.4%	12.8%
Common equity tier 1 ratio	9.3%	10.0%	9.8%	9.5%	12.0%
Customer deposits	2,330.02	2,529.34	2,694.11	2,954.09	3,176.40
Liabilities to credit institutions	1,005.59	1,155.99	1,803.32	2,440.73	2,247.70
Credit volume	2,392.77	2,566.62	2,792.66	3,072.52	3,139.03
Securities held	1,125.71	1,373.31	1,907.80	1,918.39	2,365.31
Cash and cash equivalents	31.56	40.52	98.66	814.23	332.81

Sources: UmweltBank AG; GBC AG

The positive net income for the year and the high acceptance rate for the stock dividend (part of the dividend was paid in the form of UmweltBank shares in the past financial year) led to an increase in regulatory equity to € 528.9 million (31.12.21: € 503.5 million). In addition, equity also benefited from the regulatory recognition of the capital increases carried out in 2019 and 2021. In this context, the total capital ratio visibly increased to 16.5% (31.12.21: 14.0%) and is thus above the regulatory requirement, which stipulates a minimum value of 12.0% for the total capital ratio for UmweltBank AG. This also applies to the additional core capital and the core capital, which each have high safety buffers for the equity ratios.

Development of total capital (in € million)



Sources: UmweltBank AG; GBC AG; *Supervisory minimum value calculated by GBC AG

Within the scope of a regular audit by the supervisory authority, findings were made with regard to processes and structures, resulting in additional capital requirements of 2.2% for UmweltBank AG. The total capital ratio as of 31 December 2022 would have been sufficient to meet even the increased requirements. Measures were already initiated during the audit to meet the findings by the end of 2023.

The declining growth dynamics in the past financial year due to the economic situation caused the balance sheet total to increase less than in previous years. Nonetheless, the balance sheet total of \in 5,980.61 million (31.12.21: \in 5,927.80 million) is a new record, being only slightly below the \in 6.0 billion mark. On the assets side, this development is reflected by an increase in loans and advances to customers (outstanding credit volume)



to \in 3,139.03 million (31.12.21: \in 3,072.52 million). At the same time, the portfolio of securities and bonds held increased to \in 2,365.31 million (31.12.21: \in 1,918.39 million), in particular due to the acquisition of listed bonds.

The higher lending and investments in securities are financed in particular by an increase in customer deposits, which as of 31.12.22 were expanded to € 3,176.40 million (31.12.21: € 2,954.09 million) more strongly than was the case with the loans issued. At around 68.4% (31.12.21: 62.1%), the majority of these are overnight deposits, which react correspondingly flexibly to adjustments in the market interest rate level. The higher customer deposits compensated for the decline in liabilities to banks to € 2,247.70 million (31.12.21: € 2,440.73 million). The reduction of these liabilities was due to the repayment of part of the TLTRO funds after the conditions of this form of financing had deteriorated. The majority of the liabilities to banks are accounted for by KfW Förderbank (54.0%) and Landwirtschaftliche Rentenbank (10.7%).

Lending volume and customer deposits (in € million)



Sources: UmweltBank AG; GBC AG



FORECAST AND EVALUATION

in € m	FY 2022	FY 2023e	FY 2024e	FY 2025e
Interest income	74.40	80.23	84.99	99.31
Interest expenses	15.61	30.42	31.74	34.68
Interest result	58.79	49.81	53.25	64.63
Commission income	7.49	9.50	11.00	13.50
Current income	27.48	20.50	14.50	15.00
Administrative expenses	41.45	50.44	44.57	44.79
EBT*	39.21	20.84	31.02	43.70
EAT*	30.55	14.17	21.09	29.71
Customer deposits	3.176.40	3.342.52	3.482.28	3.702.90
Credit volume	3.139.03	3.209.03	3.279.03	3.429.03
Total capital	528.90	537.40	550.06	567.89

Source: GBC AG;* without allocation to the fund for general banking risks

Forecast basis

Within the framework of the preliminary figures, the UmweltBank management had already published guidance for the current financial year, according to which earnings before taxes and the formation of reserves are expected to amount to approximately € 20 million. Compared to the pre-tax result of € 39.21 million achieved in the past financial year, this is equivalent to an expected halving of the result. In its announcement of 3 July 2023, the UmweltBank management confirmed the forecast, but proceeds from the sale of investment projects will be necessary to achieve the planned EBT. After an only slightly positive pre-tax result in the first half of 2023, investments are to be sold in the second half of 2023.

This result guidance is subject to various influencing factors. On the one hand, the volume of new loans granted is expected to exceed the previous year's figure of € 623 million, which would result in a new record for the lending volume. Obviously, the UmweltBank management expects a slight improvement in the market-related specifications here, both in the area of real estate financing and in the financing of renewable energy projects. However, it can be assumed that the high interest rate levels, coupled with high price levels, will continue to weigh on the willingness to invest. Therefore, the volume of new loans is expected to be below the record levels of the financial years 2020 (€ 689 million) and 2021 (€ 845 million). Although the newly granted loans will have higher interest rates compared to previous financial years, there is a certain sluggishness here with regard to an increase in average lending rates due to the extensive existing loan volume of € 3,139.03 million.

However, the expected increase in interest income is likely to be accompanied by a significant increase in interest expenses, so that net interest income is expected to be significantly below the previous year's level. On the one hand, UmweltBank AG is affected by an increase in deposit interest rates which, due to their short-term nature, react much more flexibly to market-related adjustments. On the other hand, the expiry of the corona special conditions for TLTRO funds will result in an additional increase in financing costs. Overall, the company expects the interest margin to continue to decline (2022: 1.07%), which should only rise again in the medium-to-long term. Against this backdrop, we do not expect a noticeable improvement until 2025.

The decline in net interest income is to be offset by an increase in net commission income and net trading income. The expansion of sales activities for own funds of the "UmweltSpektrum" brand as well as an expansion of the issuing business should contribute to this. In addition to the planned increase in awareness of this brand, investments in green projects are also to be expanded, so that the contribution to income and results of



the business outside of lending, i.e. in the business areas of "securities business" and "investments", should increase.

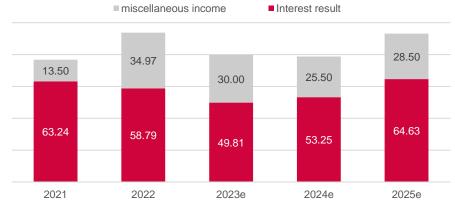
After special income from the sale of a wind farm investment (net proceeds of approx. \in 20 million) was generated in the 2022 financial year, proceeds from the sale will again be generated in the current financial year, although we expect them to be lower than in the previous year. In total, this will lead to a decline in other income, so that overall a declining income picture should prevail. On the cost side, this development should be accompanied by rising expenses, especially in connection with the implementation of the transformation process "umwelt.neo". A core component of this process is the migration to a new core banking system from Atruvia, which offers an improved customer experience and an optimisation of internal processes. At the same time, the migration of the core banking system should help to ensure compliance with regulatory requirements. Investments of \in 10 million are expected in this regard for the current financial year 2023, while around \in 4 million in investments are anticipated for the financial year 2024.

In addition to the pure costs, the migration will also tie up personnel capacities. In this respect, the company should continue to expand its staff in the current financial year, although a lower dynamic can be assumed. Salary adjustments should also lead to a noticeable increase in personnel expenses.

In this respect, the company is undergoing a transformation process in the financial years 2023 and 2024, at the end of which a modern IT infrastructure will be in place from 2025 and more employees will be employed at the new company headquarters "UmweltHaus". Finally, from 2025 onwards, also against the background of the then-increasing interest margin, significant improvements in earnings and results were achieved.

Earnings and result forecast

Net interest income and other income (in € million)



Source: GBC AG

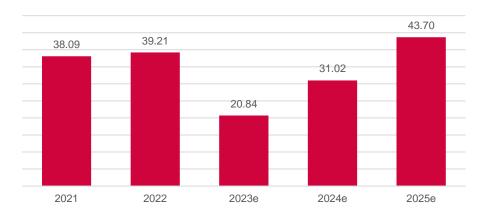
For the financial years 2023 and 2024, we expect net interest income of € 49.81 million (2023) and € 53.25 million (2024), which should be below the level of the past two financial years. We do not expect a noticeable increase in the financial result until 2025, driven in particular by an increase in the interest margin and lending. We assume a visible reduction in other income (including commission income) due to the decline in proceeds from disposals before rising income from investments and securities are likely to lead to an increase from 2024.

Due to a strong increase in administrative expenses, which include both higher personnel expenses and increased transformation costs, we forecast a pre-tax result (before the



formation of reserves) of \in 20.84 million for the current financial year, which is in line with the company's guidance. After another year of transformation, the pre-tax result should not be above the level of the previous financial years until the 2025 financial year.

Forecast EBT* (in € million)



Source: GBC AG; *before allocation to the fund for general banking risks



Evaluation

For the valuation of UmweltBank AG, we have used a residual income model, whereby the difference between the return on equity and the cost of equity is used to determine the surplus return of the estimation periods. In doing so, we have formulated concrete expectations regarding the annual surpluses and resulting changes in equity for the estimation periods of the three financial years 2023e - 2025e. The expected returns on equity can be derived from this. The residual income of the business year can be derived from the generated surplus return of a period. The expected residual income is then discounted to the valuation date with the cost of equity. To determine the terminal value, we apply a premium to the current book value.

$$Fair\ Company\ Value = EK_0 + \sum_{t=1}^T \frac{(ROE_t - r)EK_{t-1}}{(1+r)^t} + \frac{P_T - EK_T}{(1+r)^T}$$

 $\mathsf{EK} = \mathsf{equity}$ $\mathsf{ROE} = \mathsf{return} \; \mathsf{on} \; \mathsf{equity}$ $\mathsf{P} = \mathsf{premium} \; \mathsf{on} \; \mathsf{book} \; \mathsf{value}$ $\mathsf{r} = \mathsf{cost} \; \mathsf{of} \; \mathsf{equity} \; \mathsf{capital}$ $\mathsf{T} = \mathsf{estimation} \; \mathsf{period}$ $\mathsf{T} = \mathsf{last} \; \mathsf{estimation} \; \mathsf{period}$

Determination of the cost of capital

The relevant discount rate for use in the residual income model is the cost of equity. To determine the cost of equity, the market risk premium, the company-specific beta and the risk-free interest rate must be determined.

The risk-free interest rate is derived from current yield curves for risk-free bonds in accordance with the recommendations of the Fachausschuss für Unternehmensbewertungen und Betriebswirtschaft (FAUB) of the IDW. The basis for this is the zero bond interest rates published by the Deutsche Bundesbank according to the Svensson method. To smooth short-term market fluctuations, the average yields of the previous three months are used and the result rounded to 0.25 basis points. The currently used value of the risk-free interest rate is 2.00% (previously: 1.50%).

We use the historical market risk premium of 5.50% as a reasonable expectation of a market risk premium. This is supported by historical analyses of stock market returns. The market premium reflects the percentage by which the stock market is expected to yield better than low-risk government bonds.

The beta calculation was based on the historical price data of UmweltBank AG (monthly price development over the past four years). We used the STOXX® Europe 600 Banks price index as a reference index and averaged it in the regression analysis over a period of five years. On this basis, we determined a beta of 0.54 (previously: 0.49), which we also adjusted and smoothed in accordance with *Blume*'s work. Using the assumptions made, we calculate a cost of equity of 4.97% (previously: 4.20%) (beta multiplied by risk premium plus risk-free interest rate).



Valuation model and valuation result

in € m	31.12.2022	31.12.2023e	31.12.2024e	31.12.2025e	Final value
Equity	402.65	411.15	423.81	441.64	
Net profit for the year	30.55	14.17	21.09	29.71	
ROE (after taxes)		3.48%	5.05%	6.87%	11.00%
Cost of equity		4.97%	4.97%	4.97%	4.97%
Excess return		-1.49%	0.08%	1.90%	6.04%
Book value factor		0.70	1.02	1.38	2.21
Residual income		-5.99	0.34	8.04	554.10

According to our valuation model, UmweltBank AG should be able to achieve a sustainable return on equity (after taxes) of 11.00% in relation to the balance sheet equity. Assuming a cost of equity of 4.97%, a sustainable excess return of 6.04% or a book value factor of 2.21 should be generated in the terminal value. To determine the terminal value, we have therefore applied a premium over the book value of 2.21.

Present value of residual income 2023 - 2025	€ 7.62 million
Present value of residual income final value in € million	€ 502.87 million
Total present values in € million	€ 510.49 million
Shares outstanding in m	€ 35.44 million
Fair enterprise value per share in €	€ 14.40 €

The sum of the discounted residual income results in a value of € 510.49 million (previously: € 536.69 million). In view of an outstanding number of shares of 35.44 million, this results in a fair enterprise value per share of € 14.40 (previously: € 14.65). The slight price target reduction is exclusively a consequence of the increased cost of equity to 4.97% (previously: 4.20%), resulting from an increase in the risk-free interest rate and the company-specific beta. At a current share price of € 11.30, we continue to give the rating BUY.



APPENDIX

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Research under MiFID II

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- 2. the research report shall be made available simultaneously to all investment service providers interested in it.

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The respective recommendations/ classifications/ ratings are associated with the following expectations:

BUY	The expected return, based on the determined price target, including dividend payment within the corresponding time horizon is > = + 10%.
HOLD	The expected return, based on the determined price target, including dividend payment within the corresponding time horizon is > - 10% and < + 10%.
SELL	The expected return, based on the determined price target, including dividend payment within the corresponding time horizon is <= - 10%.

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§ 2 (IV) Information basis:

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The analysts responsible for this analysis are:

Cosmin Filker, Dipl. Betriebswirt (FH), Deputy Chief Analyst

Marcel Goldmann, M.Sc., M.A., Financial Analyst

Other person involved in this study: Jörg Grunwald, Executive Board

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