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Financial Sustainability in Austrian Industrial Companies

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Abstract: The Green Deal published by the European Commission in 2019 pursues the goal of a climate-neutral continent. Its guidelines cover sustainable finance, industry, and energy supply, among other areas. Choosing sustainable investment and finance promotes the shift to a more carbon neutral, circular and environmentally conscious economy and underpins financial stability. Companies that want to remain competitive must embrace sustainable business practices. This means considering sustainable investments and corporate financing along the value chain. In this article, we will show which sustainable forms of financing are available to companies - analysing Austrian industrial companies. Furthermore, it will be worked out when investments are to be judged as sustainable and what kind of sustainable investments are made by the companies surveyed.

Keywords: green debt capital; green equity; sustainable criteria; sustainable forms of financing; sustainable investments

1 INTRODUCTION

Sustainability plays a major role in industry, where the aim is to achieve an ecological transformation of this sector [1]. Examples include a new organization of the value chain by changing the production method, the creation of sustainable consumption with the help of an efficiency revolution and the development of high-quality products [2]. Industrial companies are therefore challenged to address sustainable business practices. The anchoring of sustainability in the management level and its integration into the strategy and innovation processes of the companies is of great importance [3]. Environmentally compatible management also means sustainable financial management. This involves generating sustainable investments by companies and sustainable corporate financing along the value chain [4].

Continuous, sustainable economic growth and the promotion of inclusive, sustainable industrialization play an important role in the goals of sustainable development [3]. By choosing the right financial products, companies can contribute to a sustainable and internationally competitive business location.

1.1 Objectives and Research Method

This paper elaborates when investments are to be judged as sustainable and which sustainable forms of financing are available for companies. Within the framework of a two-stage model, the following research questions will be answered:

- Which sustainable forms of financing are used by Austrian industrial companies?
- Which sustainable investments are made by Austrian companies?

The research questions are addressed in a two-step procedure. First, the most important methods for assessing the sustainability of companies and financial products and the various dimensions of sustainable investment and financing are analysed as part of a comprehensive literature review. Possibilities of green capital procurement for Austrian companies are identified. Furthermore, evaluation criteria for sustainable forms of financing are elaborated. Since there exist no standardized criteria for evaluating sustainability in the forms of financing, a classification matrix is created as part of a secondary research. This matrix will then be used to assess the extent of sustainable forms of investment and financing for Austrian industrial companies.

For this purpose, industrial companies ranked in the Austrian sustainability index VÖNIX are examined. VÖNIX summarizes all listed companies in Austria that are considered sustainable and serves as a benchmark for sustainable investment on the Austrian stock market. In 2021, a total of 19 Austrian listed companies were included in that index.

Within the framework of a semantic analysis of the sustainability reports from annual reports and homepages of the selected companies, as well as the VÖNIX sustainability rating, green investments and financing forms of the companies are determined.

1.2 Sustainable Finance

Sustainable Finance is the result, or a further development of the agreements adopted by the European Commission, such as the Paris Climate Agreement or the European Green Deal [5]. Companies are encouraged to anchor sustainability in their corporate strategy. The UN Global Compact is used as a basis for transformation and change processes in companies - an agreement between the United Nations and companies that aims to shape globalization in a sustainable, socially and environmentally conscious manner [6]. The lasting ambition is to ensure that sustainability is anchored along a company's value and supply chain [7]. In order to create this transformation process towards corporate sustainability and a predominantly emission-free economic system, certain rules have been laid down on the part of the EU. In addition to R&D and innovation, a decisive role is played by targeted investment. This means that an investment fulfils a specific purpose or has a specific goal, such as environmentally friendly production or the production of recyclable products [8]. In order to achieve these goals, appropriate financing is necessary. In the course of the transformation process, cooperation with capital providers and credit institutions is necessary. Lenders support entrepreneurs in financing sustainable projects. Credit institutions provide market participants with access to capital for financing sustainable projects [7].

2 EVALUATION OF SUSTAINABLE FINANCE

Sustainable Finance means the provision of financial resources for investments, considering environmental, social and governance aspects [9]. Ref. [10] says the focus of Sustainable Finance is on the development and realization of sustainable finance. Thus, sustainable finance encompasses sustainable growth by channelling financial flows specifically into the transformation of the economy. There are numerous other definitions and terms in the literature. Examples are ethical investment, green finance, sustainable investment, socially responsible investing, or impact investing. Basically, financing approaches consider all three dimensions of sustainability: economic, social and ecological [11]. The definition of Sustainable Finance was derived by the European Commission from the ESG criteria. These are among the best-known methods for assessing the sustainability of companies and financial products. The abbreviation ESG stands for the three areas Environment (E), Social (S) and Governance (G). To finance the transformation of a sustainable economy and the creation of sustainable finance, the European Commission has defined three necessary steps for change: first, redirecting capital flows to sustainable investments to generate long-term growth; second, addressing financial sustainability risks; and finally, promoting transparency and durability in financial and economic activity [12].

Sustainable investments and financing are therefore possible alternatives to conventional financing instruments for a company if, on the one hand, future projects increase the sustainability level of a company (green projects) and, on the other hand, sustainability is integrated into the business activities and the business model of a company (green business models).

There are three different dimensions to sustainable investing and financing [13]:

- type of green project, e.g., renewable energy projects, energy efficiency projects, recycling projects, climate protection projects
- quality of the sustainable project, e.g., project transparency, structure, management
- instrument of financing, e.g., green equity or debt capital

2.1 Sustainability Criteria

According to [12], these include exclusion criteria, best-in-class, engagement, ESG integration, impact investment, sustainable thematic funds, and standards-based screening. Ref. [14] confirms the listed categories and adds that the most frequently used categories are exclusion and negative criteria, but that positive lists would also be used. The categories exclusion and positive criteria can also be found in the evaluation process of the Austrian sustainability index VÖNIX. Ref. [15] says that the category of exclusion criteria or negative criteria is a first selection in the whole selection process. Positive screenings define the requirements that must be met in order to be a sustainable investment. Best-in-class approaches mean company and country rankings that are carried out and evaluated by rating agencies [11]. The key factor in assessing sustainability is the impact of the project and the company's commitment. This can affect the areas of environment or energy just as much as education or health. To measure the effects of impact and commitment, the ESG criteria are also used here [14].

2.2 Forms of Sustainable Financing

A distinction is made between green debt and green equity. Green debt capital includes, for example, green bonds, green promissory note loans, green bank loans as well as green subsidies [13].

Green bonds are bonds issued by companies or governments. They meet sustainability criteria and are classified as fixed-income securities. To create a uniform framework for issuers of green bonds, the industry has introduced the Green Bond Principles (GBP). These specify the specific purposes of the invested funds, for example how the proceeds of the issue are to be used [14]. ***Green promissory note loans*** are loan agreements that are mostly offered directly to institutional investors. Specific investment criteria for the capital generated from the loan have not been defined. However, the pricing mechanism is related to the sustainability rating, so that the risk premium decreases when the rating improves and vice versa [16]. ***Green bank loans*** include traditional bilateral loans. To strengthen sustainability considerations for companies, a company's sustainability performance is assessed, or specific sustainability targets, such as pre-defined CO_2 emissions of the company, are included in the loan agreement [13]. ***Green subsidies*** are provided for investments that meet sustainability criteria.

Green equity includes green shares, sustainable crowd investing or venture capital.

If companies issue ***green shares***, ESG factors are used and evaluated. In this case, the positive criteria are considered and serve to evaluate social, environmental and moral aspects, whereas negative criteria lead to exclusion. If companies have a high value of positive criteria, they are evaluated according to the best-in-class approach. This highlights particularly committed companies that promote environmental protection, employees and sustainable business policies. ***Sustainable crowd investing*** is a corporate investment consisting of many individual investments. The focus is primarily on investing in young companies and start-ups that are specifically involved in the sustainability sector. There are no criteria in this type of financing that are directly in line with sustainability aspects. With this sustainable crowd investing, it is more about the impact of the project, i.e., what contribution the project or the start-up company makes to environmental protection and the reduction of CO_2 emissions [14]. ***Venture capital*** is a form of financing in which capital is made available to young, innovative and unlisted companies for a certain period of time. The capital is used for start-ups and growth financing of companies with above-average potential and is mainly used in the Greentech sector [17].

2.3 Evaluation of Sustainable Investment and Financing in Austrian Industrial Companies

As can be seen from the previous sections, there are certain criteria that are used to ensure that the respective investment or form of financing is considered "green". It should be mentioned that there is currently no standardization of the sustainability criteria and therefore different aspects can be included individually, depending on the investment and form of financing. In the classification matrix (see Tab. 1), the sustainability criteria described before are assigned to the financing instruments. The matrix shows which sustainability criteria apply to which financing

Subsequently, the extent to which sustainable forms of financing and sustainable investments are applied in selected Austrian industrial companies is surveyed. The sustainability index VÖNIX from 2021 of the Vienna Stock Exchange is used for this purpose. This serves as a benchmark for sustainable investment on the Austrian stock market. In 2021, a total of 19 Austrian listed companies were included in the VÖNIX. Nine of these companies belong to the industrial sector. Since the focus of this article is on sustainability in manufacturing companies, these nine industrial companies will be used for further analysis. The nine companies considered include manufacturers of chemicals, fibres, printed circuit boards, building materials and metal products, as well as providers of telecommunications services and manufacturers of lifting equipment and special vehicles.

The sustainability level of the selected companies was determined in a semantic analysis based on the respective published sustainability reports in 2021 (annual reports, homepages of the respective companies) and the sustainability rating of VÖNIX. The VÖNIX rating scale of the criteria ranges from –10 (worst rating) to +10 (best possible rating). The evaluation of the respective criteria refers to the significance of the individual company in terms of industry affiliation, regional structure and position in the value chain. The ratings for the individual criteria are used to produce an overall rating for the company, which corresponds to a nine-point scale from A+ to C–. If, for example, too little data is available on the respective companies, the rating is shown in lowercase letters such as a, ab and b to indicate imprecision in the rating.

The companies were ranked alphabetically, the business field was briefly described, the sustainability focus was recorded and the rating of the companies in the sustainability rating of VÖNIX including the exact points were listed. Furthermore, sustainable forms of financing and investments were worked out (see Tab. 2).

3 RESULTS

3.1 Classification Matrix of Sustainable Financing

Tab. 1 shows that among all forms of financing, green bonds apply the most sustainability criteria (10 out of 11 criteria). For green shares, 8 criteria are relevant, which primarily help to ensure the greatest possible transparency for investors. Regarding the sustainability criteria, the criteria for sustainable use of funds and impact and engagement play a decisive role for all sustainable forms of financing. In the field of green financing, the ESG criteria are only relevant for green bonds and green shares, as well as for green investments. In the area of green investment assessment, particular emphasis is placed on the nature and quality of the project and the reporting of its progress.

Table 1 Classification Matrix of Sustainable Financing

	Green Bonds	Green Loans	Green promissory note loans	Green subsidies	Green shares	Sustain -able crowd funding	Venture Capital
ESG criteria	X				X		
Green Bonds Principles	X						
Sustainability Rating	X	X	X		X		
Sustainable use of funds	X	X	X	X		X	X
Exclusion criteria	X				X		
Positive critera	X				X		
Best-in-Class					X		
Impact and Engagement	X	X	X	X	X	X	X
Eco-Labels	X						
Certifications	X		x				
Benchmarks (VÖNIX)					X		
Reporting	x				X		

3.2 Sustainable Investment and Financing in Austrian Industrial Companies

During the research, numerous green investments were identified at the nine industrial companies mentioned.

However, the companies hardly show any sustainable forms of financing. Tab. 2 summarizes the data and information collected from the respective companies and lists the companies, their business area and sustainability rating using VÖNIX ratings and score. Those forms of financing of the companies studied that qualify as sustainable have been highlighted in green. If there is no indication of green forms of financing in the company, this is noted in red. In the last column, the sustainable use of funds is mentioned.

The overall result shows that for six out of nine companies, no sustainable forms of financing could be demonstrated. The remaining three companies use for debt financing green revolving credit facility, ESG promissory note loans and ESG loans. Green bonds or sustainable forms of self-financing like green shares were not found at any of the industrial companies surveyed.

4 CONCLUSIONS

In summary, sustainable investing and financing is gaining in importance in the industrial sector. The Austrian industrial companies surveyed can demonstrate through their inclusion in the VÖNIX sustainability index that they operate sustainably and that their activities and performance have been assessed as sustainable. The nine companies examined have received a rating class of B or B+ or ba. In terms of the score value, LENZING AG is the furthest ahead with 3.9 points, which is related to the use of the renewable raw material wood. PALFINGER AG, which has introduced professional sustainability management in the company, follows with 3.0 points (see Tab. 2). With reference to the classification matrix and the semantic analysis of the selected companies, the following research questions could be answered.

Table 2 Evaluation of Austrian industrial companies [18], [21], [22], [23], [24], [25], [26], [27], [28]

Company	Business Unit	Sust-aina-bility Rating	Score	Financing Forms	Sustainable Use of Funds
AGRANA Beteiligungs-AG	Production of agricultural products	ba	1,8	Shares, credits, loans, promissory note loans Green Revolving Credit Facility	Installation of photovoltaic systems, phasing out of coal, electricity from renewable energies
AMAG Austria Metall AG	Production of metal components	ba	1,6	Shares, credits, loans, Leasing liabilities, no indication of sustainable forms of financing	Reduction of emissions in the area of recycling, environmentally friendly production
AT&S Technologie & Systemtechnik AG	Production circuit boards	ba	1,5	Shares, bonds, loans, promissory note loans, OeKB equity financing, no indication of sustainable forms of financing	Reduction of Co2 demand in production, reorganization of water treatment, optimization of resources
KAPSCH Trafficcom AG	Production of agricultural products	B	1,6	Shares, credits, promissory note loans no indication of sustainable forms of financing	Maintenance and expansion of transport networks, reduction of environmental pollution
LENZING AG	Production of pulp and fibers	B+	3,9	Shares, bonds, credits, Leasing liabilities, OeKB equity financing, ESG promissory note loans	Investment in trees, modernization of wastewater treatment facilities, state-of-the-art production plant
PALFINGER AG	Supplier crane and lifting solutions	B+	3,0	Shares, loans, promissory note loans, Leasing liabilities, no indication of sustainable forms of financing	Investments in a new R&D center to strengthen innovation capacities
ROSENBAUER International AG	Production firefighting equipment	B	1,6	Shares, credits, Financing by the public sector no indication of sustainable forms of financing	Use of green electricity, substitutes for energy-intensive work equipment, reduction of heating, fuel and water consumption
WIENERBERGER AG	Production of bricks and pipe systems	Ba	1,7	Shares, Bonds, Loans, Leasing Liabilities, ESG credit	Investment in circular economy, biodiversity, reduction of Co2 emissions, recycling, new product design
ZUMTOBEL AG	Supplier lighting technology	ba	2,0	Shares, credits, no indication of sustainable forms of financing	Investments in tools for new products, Expansion and maintenance investments, R&D

4.1 Sustainable Forms of Financing used by Austrian Industrial Companies

There is still potential for sustainable forms of financing among the companies analysed. A large proportion of the companies use conventional forms of capital procurement; the analysis of the company reports showed that there is often no indication of sustainable forms of financing.

In terms of green forms of financing, the sustainability loan, also known as the "green revolving credit facility" or "ESG-linked loan," and the ESG promissory note loan were mentioned. Referring to the ESG credit, the interest rate of the credit is linked to the ESG rating of the respective company.

4.2 Sustainable Investments made by Austrian Industrial Companies

The capital raised is used by most of the companies for sustainable investments. This was clearly evident in all the companies listed. Examples include investments in renewable energy, reduction of CO_2 emissions, use of photovoltaic systems, reorganization of water treatment, improvement of waste management and research and development of more sustainable products. Tab. 2 shows that industrial companies have anchored the topic of sustainability in their corporate philosophy by developing sustainability strategies and publishing them in comprehensive reports, and by making sustainable investments. The environmental, social and governance factors in particular are taken into account. It turns out to be essential for the qualification of an investment as "sustainable" that the project meets the ESG criteria and that the funds are used for sustainable purposes. Finally, transparency is also essential in the context of a sustainable investment, which is ensured through regular reporting and reporting.

4.3 Recommendations to Sustainable Forms of Financing

Green Bonds currently do not have a general standardization of green bond standards. In order to create a uniform framework for issuers of green bonds, the Green Bond Principles (GBP) were introduced by the industry. The most important criteria for issuing green bonds are transparency in project selection, use of funds, reporting and external verification. In order to maintain transparency vis-à-vis investors regarding the use of capital, verification by third parties, such as a rating agency, is advantageous. Tab. 3 shows the main criteria of the GBP.

Table 3 Criteria of GBP [13], [14], [20], [29], [30], [31]

Criteria of the Green Bond Principles	Description
Use of issue proceeds	Use of issue proceeds in the bond prospectus
Process of project evaluation and -selection	Information for the investor: Ecological/sustainable objective, Procedure for determining the suitability of projects, Enumeration of suitability and exclusion criteria
Revenue management	Transparency of the use of capital Third-party verification of capital utilization
Reporting	Regular publication on the Green Bond: Project description, expected environmental impact, Indication of the amounts disbursed

In Austria, the Austrian Ecolabel, as a standard for green bonds, was established in 2020.

Concerning green promissory note loans there is no reporting obligation for them and no obligation to prepare a prospectus. However, there is a certification in the form of a green label.

With green bank loans, sustainability targets, such as predefined CO_2 emissions of the company, can be included in the loan agreement. To ensure that these targets are actually met, the companies are assessed by a sustainability rating from an independent agency.

Subsidies are also an instrument for raising capital. In Austria, green subsidies are available for those companies that are committed to positive environmental effects and actually carry out this transformation. These include a reduction in CO_2 emissions, use of renewable energy sources, construction of energy-efficient buildings, waste reduction, and purchase of e-cars.

On January 1st, 2023, the EU directive on corporate sustainability reporting, the Corporate Sustainability Reporting Directive, will come into force. Companies must then disclose, for example, their consumption of raw materials and resources, their suppliers and their CO_2 emissions [19]. This also indicates the respective focus areas and projects of the companies. It is expected that this reporting obligation will also be extended to SMEs in the near future.

Crowd investing is an interesting instrument for raising capital, especially for investments in young companies and start-ups that are specifically involved in sustainability. Participants receive interest on the capital invested, but have no say or voting rights. The company is required to provide investors with up-to-date information on its business performance. This makes sustainable crowd investing particularly transparent. There are no criteria in this type of financing that are directly in line with sustainability aspects.

Green Venture capital is used to establish and finance the growth of companies with above-average potential in the Greentech sector, where the focus is on the development of resource-saving technologies. Venture capital funds and corporate venture capital funds can be issued by industrial companies as possible forms of financing. This enables technology-oriented and production-related start-ups of companies. Ref. [17] see further potential in the use of venture capital and point to a revision of the framework conditions and tax regulations in order to mobilize more capital via Greentech investments in the future.

Notice

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5 REFERENCES

[1] Bechberger, M., Thiele, Y., & Neumann, K. (2020). European Green Deal: Hebel für internationale Klima- und Wirtschaftsallianzen. In Wittpahl, V. (Ed.): *Klima: Politik & Green Deal, Technologie & Digitalisierung, Gesellschaft und Wirtschaft*. Springer Vieweg Verlag, 75-83. (In German) https://doi.org/10.1007/978-3-662-62195-0_4

[2] Lemb, W. (2015). Ein nachhaltiges Wirtschaftsmodell der Zukunft braucht "Gute Industriepolitik". In Lemb, W. (Ed.): *Welche Industrie wollen wir? Nachhaltig produzieren – Zukunftsorientiert wachsen*, Frankfurt am Main: Campus Verlag, 7-21. (In German)

[3] Pufé, I. (2017). *Nachhaltigkeit*, 3 ed. Konstanz, München, UVK, 179-247. (In German) https://doi.org/10.36198/9783838587059

[4] Schön, M. & Ebert, A. (2014). Vom Nachhaltigen Wirtschaften als ökonomische Grundlage. In Faust, M. & Scholz, S. (ed.): *Nachhaltige Geldanlage: Produkte, Strategien und Beratungskonzepte, 2nd ed.* Frankfurt am Main: Frankfurt School Verlag, 3-52. (In German)

[5] European Commission. The European Green Deal, https://eur-lex.europa.eu/resource.html?uri=cellar: b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC_1&format=PDF (Accessed: 09.03.2021)

[6] Frese, M. & Colsman, B. (2018). *Nachhaltigkeitsreporting für Finanzdienstleister*. Wiesbaden: Springer Gabler Verlag, (In German) https://doi.org/10.1007/978-3-658-17217-6

[7] Mayer, K. (2020). *Nachhaltigkeit: 125 Fragen und Antworten: Wegweiser für die Wirtschaft der Zukunft*, 2. ed. Wiesbaden, Springer Gabler Verlag, 1-20. (In German) https://doi.org/10.1007/978-3-658-28935-5

[8] Thommen, J.-P. et al. (2020): *Allgemeine Betriebs wirtschaftslehre - Umfassende Einführung aus management orientierter Sicht*, 9. Ed. Wiesbaden, Springer Gabler Verlag, 376-381. (In German)

[9] Schoenmaker, D. & Schramade, W. (2019). *Principles of Sustainable Finance*. Oxford, Oxford University Press, 179-210.

[10] Hinrichs, B. (2021). *Nachhaltigkeit als Unternehmens-strategie: Roadmap für nachhaltiges Wirtschaften und Innovation*. Freiburg, Haufe-Lexware Verlag. (In German) https://doi.org/10.34157/9783648148136

[11] Pinner, W. (2019). *Nachhaltiges Investieren: Konkrete Themen und ihre Bewertung*, 2. Ed. Wien: Linde Verlag. (In German)

[12] Lessing, A. (2020). *Nachhaltig investieren gegen den Klimawandel*. Wien, Braumüller Verlag, 20-94. (In German)

[13] Grunow, H.-W. & Zender, C. (2020). *Green Finance: Erfolgreiche Schritte zur grünen Unternehmensfinanzierung*. Wiesbaden, Springer Gabler Verlag. (In German) https://doi.org/10.1007/978-3-658-28991-1

[14] Braun, A. (2020). *Nachhaltig investieren: Mehr Rendite mit ökologischen, ethischen und sozialen Geldanlagen*. München, FinanzBuch Verlag. (In German)

[15] Friesenbichler, R. (2020). Der VÖNIX als Nachhaltigkeits-benchmark des österreichischen Aktienmarkts. In Sihn-Weber,

A. & Fischler, F. (Ed.): *CSR und Klimawandel: Unternehmenspotenziale und Chancen einer nachhaltigen und klimaschonenden Wirtschaftstransformation*. Berlin: Springer Verlag. (In German) https://doi.org/10.1007/978-3-662-59748-4_35
[16] Woitschig, R. (2015). Schuldscheindarlehen "made in Germany" als tragende Säule der Unternehmensfinanzierung, in: Zeitschrift für das gesamte Kreditwesen, 68/9. pp 440-442.
[17] Kammerer, F. & Velten, C. (2014). Green Finance: Wachstumsfeld Umwelt. Faust, M. & Scholz, S. (ed.): *Nachhaltige Geldanlage: Produkte, Strategien und Beratungskonzepte*, 2. ed. Frankfurt am Main: Frankfurt School Verlag, 41-62. (In German)
[18] Agrana Beteiligungs AG. Integrierter Geschäftsbericht 2020/21, https://www.agrana.com/fileadmin/inhalte/agrana_group/annual_reports/2020_21/AGRANA_iGB_2020_21_D_WEB.pdf (Accessed: 03.06.2021)
[19] https://www.progressaustria.eu/post/nachhaltigkeitsberichterstattung-im-21-jahrhundert (Accessed: 20.05.2021)
[20] Deutsche Börse AG. Green Bonds. https://docplayer.org/105523248-Green-bonds-25-oktober-2017.html (Accessed: 15.05.2021)
[21] AMAG Austria Metall AG. Finanzbericht 2020, https://www.amag-al4u.com/fileadmin/user_upload/amag/Investor_Relations/Finanzen_und_Berichte/Geschaeftsberichte/AMAG_Finanzbericht_2020_de_final.pdf (Accessed: 03.06.2021)
[22] AT & S Austria Technologie & Systemtechnik AG. Geschäftsbericht 2019/20, https://ats.net/de/wp-content/uploads/sites/3/2020/06/ATS_GB1920_DE_s.pdf (Accessed: 04.06.21)
[23] Kapsch Trafficcom AG. Kombinierter Bericht 2019/20: Konzernabschluss Konzernlagebericht Konsolidierter Corporate-Governance-Bericht Konsolidierter nichtfinanzieller Bericht, https://www.kapsch.net/_Resources/Persistent/1a433efbe4323c4405a9155496133a890b062823/KTC_Geschaeftsbericht_2019-20.pdf (Accessed: 04.06.21) (In German)
[24] Lenzing AG (05.06.21): Jahresfinanzbericht 2020, https://www.lenzing.com/index.php?type=88245&tx_filedownloads_file%5bfileName%5d=fileadmin/content/PDF/07_Finanzen/Geschaeftsberichte/DE/JFB_2020_DE.pdf (In German)
[25] Palfinger AG (05.06.21): Integrierter Jahresfinanzbericht 2020, https://www.palfinger.ag/de/news/publikationen
[26] Rosenbauer International AG. Nachhaltigkeitsbericht 2020, https://www.rosenbauer.com/fileadmin/user_upload/group/Investor_Relations/Finanzpublikationen/2020/210408_RB_Nachhaltigkeitsbericht_2020_verlinkt_s.pdf (Accessed: 10.06.21) (In German)
[27] Wienerberger AG. Geschäftsbericht 2020, https://www.wienerberger.com/content/dam/corp/corporate-website/downloads/investors-downloads/2021/2020-Wienerberger-Gesch%C3%A4ftsbericht_DE.pdf (Accessed: 05.06.21) (In German)
[28] Zumtobel AG. Gestalterischer Geschäftsbericht 2019/20, https://z.lighting/de/group/news-insights/group/nachhaltigkeit -als-zentrales-thema-werner-sobek-gestaltet-geschaeftsbericht-201920-der-zumtobel-group/. (Accessed: 05.06.21) (In German)
[29] Gatti, S. & Florio, A. (2018). Issue spread determinants in the green bond market: The role of second party reviews and of the Green Bond Principles. Boubaker, S., Cumming, D., Nguyen, D. *Research Handbook of Finance and Sustainability*, Edward Elgar Publishing, Cheltenham Glos, 206-224. https://doi.org/10.4337/9781786432636.00019
[30] Banga, J. (2019). The green bond market: a potential source of climate finance for developing countries. *Journal of Sustainable Finance & Investments, 9*(1), 17-32. https://doi.org/10.1080/20430795.2018.1498617
[31] Nanayakkara, M. (2019). Do investors in Green Bond market pay a premium? Global evidence. *Applied Economics, 51*(40), 4425-4437. https://doi.org/10.1080/00036846.2019.1591611

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