



Sustainable Investments

A Research Publication by DZ BANK AG



Methodological approach to sustainability research

- » DZ BANK's sustainability research is aimed at the local cooperative banks, institutional clients in Germany and abroad and central banks. Any such research must not be disclosed or made available in any way to natural or legal persons or other institutions domiciled or resident in the United States of America (USA). Any such disclosure or making available is prohibited. This research is generally not suitable for retail customers.
- » An essential part of DZ BANK's sustainability research centres around an assessment of countries, corporations, and banks (including SSAs) regarding ESG criteria. The assessment is carried out by means of the *ESG model of DZ BANK Research*. This *methodological approach* aims to explain this ESG model. ESG stands for Environmental, Social and Governance. These are the traditional dimensions of sustainability. Environmental stands for ecology and environmental protection, social for social aspects and governance for (good) corporate or state management. Sustainability can be defined as long-term, responsible, beneficial, and resource-conserving behaviour, although this definition is not exhaustive.
- » The main objective of the sustainability assessment in DZ BANK Research is to identify a sustainable investable universe of issuers. In DZ BANK Research's ESG model, this identification is generally carried out for each issuer in three steps, which are described in detail in this methodological approach.
- » In the first step, the three classic sustainability dimensions of environmental (E), social (S) and governance (G) are analysed and combined into an ESG score. In a second step, the threshold values are determined that the issuer must exceed with its ESG score to be categorised as sustainable. These thresholds are referred to as 'sustainability thresholds' in the model. These are calculated based on the ESG scores. In the third step, the analysed issuers are classified into the categories *sustainable* and *non-sustainable* (corporates and banks, including SSAs) or *sustainable countries*, *transition countries* and *non-sustainable countries* (when looking at sovereigns). For the assessment, dynamic sustainability thresholds, hard and soft exclusion criteria and current controversies are considered.
- » Sustainable corporates, banks and countries are labelled with the DZ BANK Seal of Quality for Sustainability.

SECURITIES

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Author:
Torsten Hähn, CIIA/CESGA, ANALYST
+49 211 778-3430
torsten.haehn@dzbank.de

SUSTAINABILITY ASSESSMENT IN DZ BANK RESEARCH

Introductory remarks

At the core of DZ BANK's sustainability research is a model for assessing countries, corporates, and banks (including SSAs) regarding ESG criteria: The ESG model of DZ BANK Research. ESG stands for Environmental, Social and Governance and thus for the three classic dimensions of sustainability. Sustainability can be defined as long-term, responsible, beneficial, and resource-conserving behaviour, although this definition is not exclusive and/or conclusive. ESG approaches in the contemplation of issuers generally consider concepts, activities, strengths and problem areas of security issuers with regard to ecology, social commitment, social responsibility as well as corporate and state governance.

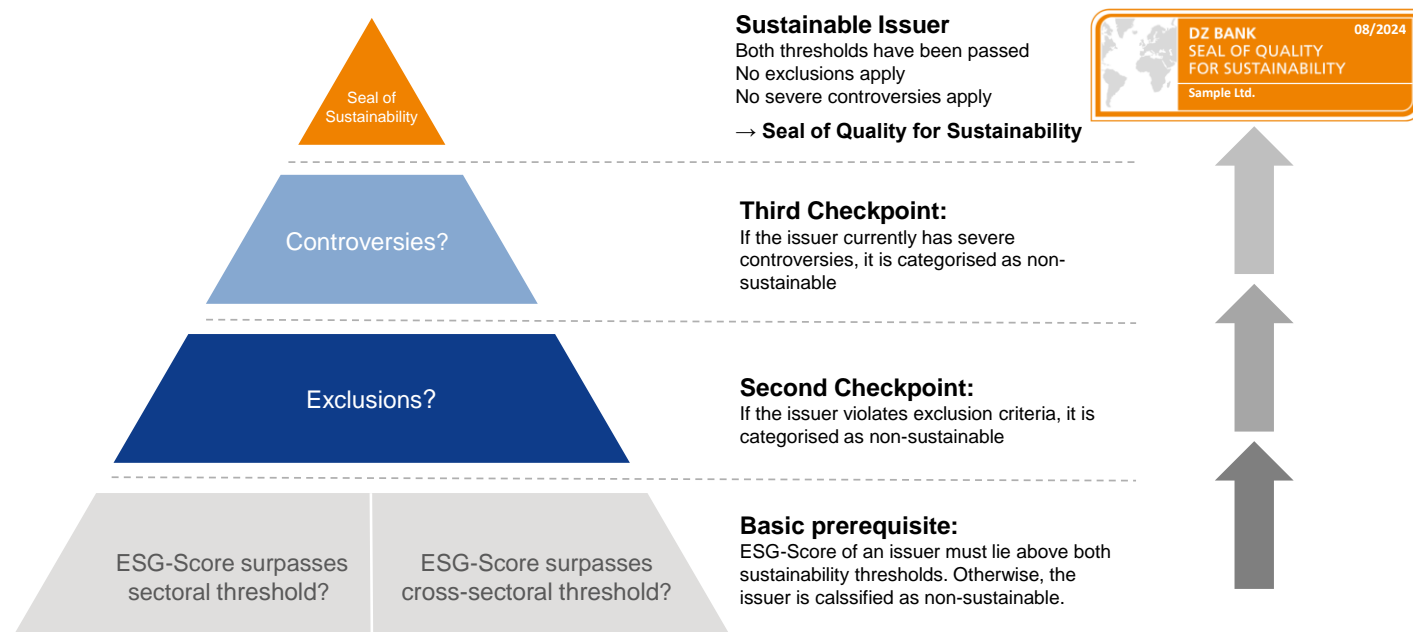
Conceptual notes on the ESG model

The main objective of DZ BANK's sustainability assessment is to identify a sustainable investable universe of issuers. Within DZ BANK Research, this identification takes place within the framework of the ESG model. This is a scoring model with integrated screening for predefined hard and soft exclusions as well as (ESG) controversies. At the end of the process, the analysed issuers are classified into the following categories

- *Sustainable and non-sustainable* (corporates and banks, incl. SSAs)
- *sustainable countries, transition countries and non-sustainable countries* (sovereigns)

Sustainable corporates, banks and countries are labelled with the **DZ BANK Seal of Quality for Sustainability** in research publications and elsewhere.

AWARD OF THE DZ BANK SEAL OF QUALITY FOR SUSTAINABILITY BASED ON THE ESG-MODEL (PRESENTATION FOR CORPORATES & BANKS)



The ESG scores determined (in the scoring model) and the sustainability thresholds which are based on them are the foundation for the classification of an issuer. If an issuer's ESG score exceeds both sustainability thresholds, has no exclusions and if there are no current (severe) ESG controversies regarding the issuer, the issuer is classified as sustainable and receives the DZ BANK Seal of Quality for Sustainability.

The analysis process carried out in the ESG model is described in detail in this methodological approach.

Further important information

The classifications determined by the scoring procedure and the inclusion of the sustainability thresholds do not represent a rating category within the meaning of the EU Rating Regulation.

DZ BANK's research awards the Seal of Quality for Sustainability exclusively to the issuer itself. The award of the Seal of Quality for Sustainability for the issuer does not contain any sustainability judgement on the current, past or future securities issues of the issuer.

It should also be noted that sustainability is not a rigid construct, but rather a dynamic process. The objects of the analysis develop dynamically over time, i.e., an issuer that is currently classified as sustainable may be categorised as no longer sustainable in the next evaluation or vice versa.

The ESG model for corporates and banks is scheduled to be updated on a monthly basis and the ESG model for countries is scheduled to be updated once a year on the basis of the data available at that time.

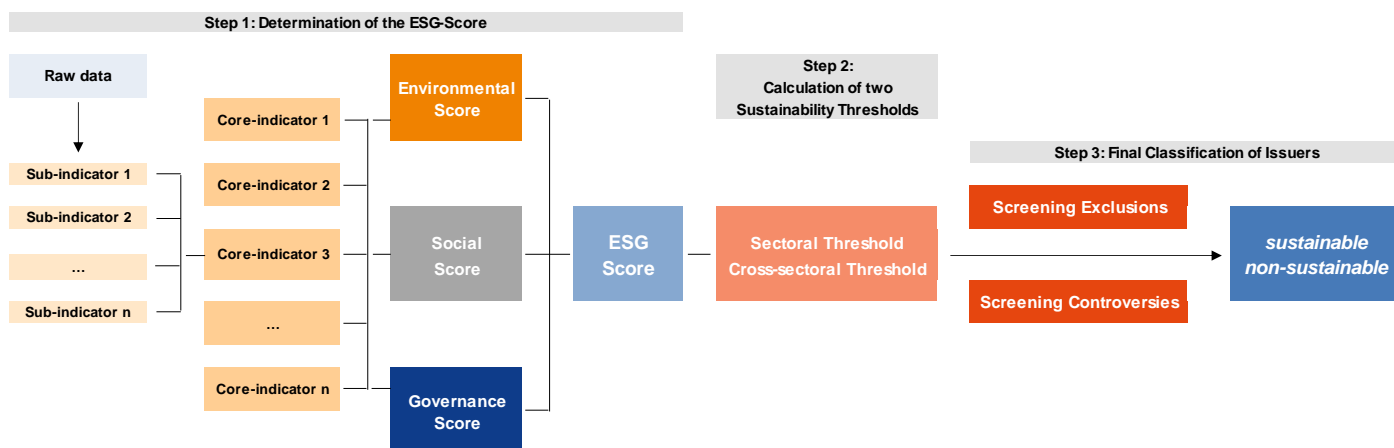
The raw data required for the classic ESG analysis is supplied by our long-standing cooperation partner Morningstar Sustainalytics (Sustainalytics), a service provider of responsible investment services with more than 20 years of market experience. Raw data from Sustainalytics also forms the basis for the application of the hard and soft exclusion criteria and for the controversy screening.

SUSTAINABILITY ASSESSMENT FOR CORPORATES AND BANKS

The sustainability assessment for corporates and banks is the result of a multi-stage analysis process.

The sustainability assessment is generally carried out in three steps.

SUSTAINABILITY ASSESSMENT IN THE ESG MODEL OF DZ BANK RESEARCH



Source: DZ BANK

Analysis of the classic sustainability dimensions (ESG)

Firstly, the three classic sustainability dimensions of environmental (E), social (S) and governance (G) are analysed and combined to create an ESG score. The ESG analysis is currently based on 15 core-indicators, five of which are in the environmental, five in the social and five in the governance area. These core-indicators are currently made up of 37 sub-indicators. The environmental sustainability level currently comprises 9 sub-indicators, the social level 13 sub-indicators and the governance level 15 sub-indicators.

Step 1: ESG score

The sub-indicators are in turn formed from the summarisation of raw data points. The raw data required for the ESG analysis is generally supplied by Sustainalytics. The raw data points supplied take on values between 0 (weak performance) and 100 (strong performance). The raw data is used to populate a largely automated model for the analysis.

Delivery of raw data

In addition to the raw data provided, the ESG scoring also contains individual data points (summarised into one core-indicator each for E, S and G), which can be filled in by DZ Bank Research and thus, in principle, allow a supplementary assessment by DZ BANK Research. Due to their particularly prominent role in the ESG area, national and international development banks are currently getting a favourable assessment by DZ BANK Research as part of this supplementary evaluation.

Possible additions to the assessment

The definition and weighting of the core- and sub-indicators in the model is carried out by DZ BANK Research. Not all raw data points are relevant or available for all issuers and/or sectors, meaning that not all the approximately 200 data points per issuer are always populated.

The core-indicators of the three dimensions (E, S and G) are combined according to a certain weighting to form an issuer's E, S and G score. The E, S and G scores are in turn summarised to form the ESG score. This aggregation considers the special features of the respective sectors. For this purpose, a sector-specific weighting-key is applied to form the ESG score from the scores of the three dimensions. This weighting-key is different for the various sectors. For example, the environmental factor has a high weighting in sectors with energy-intensive production. In the financial sector, on the other hand, the governance factor is the most important. For each sector, the E, S and G weighting is never less than 25 per cent and never more than 50 per cent of the ESG score. **The ESG score is thus calculated (by addition) from the sector-weighted combination of the E, S and G scores determined.**

Sector weightings

For each raw data point, a raw score between 0 points (poor performance) and 100 points (top performance) is awarded according to performance. The corresponding raw score values are then summarised into the respective sub-indicators. The next summarisation stage then results from the aggregation of the sub-indicators according to the predefined weights to form the core-indicators. The weighted scores of the core indicators of a dimension then cumulatively result in an E-, an S- and a G-score. Finally, these three scores are combined into the ESG score for an issuer in accordance with the sector weightings outlined above. The ESG score lies between 0 and 100 points.

Summarised presentation: Determination of the ESG score

ESG score lies between 0 and 100 points

Calculation of the two sustainability thresholds (best-in-class approach)

To be able to carry out the classification, the respective threshold values which the ESG-Score of an issuer must exceed to be categorised as sustainable must be defined.

Step 2: Sustainability thresholds form the basis of the classification

Based on the best-in-class approach, the issuers are categorised using two sustainability thresholds (sectoral and cross-sectoral). The sustainability thresholds are calculated on the basis of the ESG scores. Both thresholds are not rigid, but dynamic and flexible over time. The sustainability thresholds are calculated as follows:

The sustainability thresholds are calculated on the basis of the ESG scores

- The **sectoral sustainability threshold** is calculated as the average of the ESG scores of all analysed issuers in a sector. Issuers whose ESG score falls below the sectoral sustainability threshold are classified as *non-sustainable*.
- The **cross-sectoral sustainability threshold** is a sector-independent sustainability threshold and results from the average value of the ESG scores of all issuers analysed from all sectors. Issuers whose ESG score falls below the cross-sector sustainability threshold are classified as *non-sustainable*. This also applies if the specific issuers ESG score lies above the sectoral sustainability threshold.

Sectoral sustainability threshold

Cross-sectoral sustainability threshold

Classification of issuers

In the final step, the corporates and banks are categorised as *sustainable* or *non-sustainable*. In addition to the sustainability thresholds, exclusion criteria and current (severe) controversies are taken into account.

Step 3: Classification into sustainable and non-sustainable issuers

Exclusion criteria describe negatively formulated characteristics that result in issuers that exhibit one or more of these characteristics being categorised as *non-sustainable*. A distinction is made between hard and soft exclusion criteria.

Exclusions and controversies

If a hard exclusion criterion applies to an issuer, this issuer is generally classified as *non-sustainable*. In the approach of DZ BANK Research, a hard exclusion exists if the issuer violates the 10 principles of the UN Global Compact. These are violations of fundamental human rights, breaches of basic international labour standards and

Hard exclusions

environmental laws as well as the existence of corrupt practices such as extortion or bribery.

In the case of soft exclusions, categorisation as *non-sustainable* generally occurs when a predefined limit is exceeded. Normally, this limit is 10% of the turnover of critical goods and services. Such goods and services currently consist in the production and development of weapons, the production of alcohol and tobacco, the extraction of coal and the production of and for nuclear energy (including uranium mining). In addition, banks may be subject to a soft exclusion if controversial financing has been provided.

Soft exclusions

In addition to hard and soft exclusion criteria, sustainability controversies – i.e., environmental, social and governance controversies – are also considered in the evaluation model. In contrast to the exclusions, an exact and comprehensive definition of these controversies cannot be provided, as such controversies can occur in numerous areas of economic activity. In principle, however, it can be said that controversies represent negative effects for the environment, for individuals or for society that result from the production and/or distribution of an issuer's products and services. Depending on the intensity of the controversy, an issuer can be categorised as *non-sustainable*.

Controversies

The application of the exclusion criteria and the controversy screening (including the assessment of the intensity of the controversy) are based on raw data from Sustainalytics.

Based on the ESG score and the sustainability thresholds and after screening for exclusions and controversies, an issuer is categorised as either *sustainable* or *non-sustainable*:

- **Sustainable issuers:** Issuers whose respective ESG score exceeds the cross-sectoral and the sectoral sustainability threshold and which do not violate any of the defined exclusion criteria and do not have any serious current controversies. The corporates and banks classified as *sustainable* are labelled with the DZ BANK Seal of Quality for Sustainability (for example in DZ BANK Research publications).
- **Non-sustainable issuers:** Issuers whose respective ESG score falls below the sectoral sustainability threshold and/or the cross-sectoral sustainability threshold. In addition, issuers that exceed the sectoral and cross-sectoral sustainability threshold with their respective ESG score, but which violate one or more of the defined exclusion criteria and/or have severe current controversies.

SUSTAINABILITY ASSESSMENT FOR COUNTRIES

The sustainability assessment for countries is the result of a multi-stage analysis process. The procedure is in general very similar to that for corporates and banks. The sustainable investable universe is also identified in three steps.

Analysis of the classic sustainability dimensions (ESG)

Firstly, the three classic sustainability dimensions of environmental (E), social (S) and governance (G) are integrated into the model on the basis of raw data and information from Sustainalytics. Within the country model, DZ BANK Research has decided to pay particular attention to the degree of social development and the performance of a country's institutions. The following weighting is therefore applied in the additive composition of the ESG score:

Environmental (E) = 25% (of a figure between 0 and 100 points)

Social (S) = 35% (of a figure between 0 and 100 points)

Governance (G) = 40% (of a figure between 0 and 100 points)

The ESG score is calculated by adding the weighted environmental, social and governance scores. **The ESG score lies between 0 and 100 points.**

Calculation of the two sustainability thresholds (best-in-class approach)

To be able to carry out the classification, the respective threshold values that must be exceeded to be categorised as sustainable must be defined with regard to the ESG score of an issuer.

Based on the "best-in-class approach", the threshold values are determined using two sustainability thresholds (transformation threshold and sustainable leader threshold). The sustainability thresholds are calculated based on the ESG scores. Both thresholds are not rigid, but flexible over time. The two sustainability thresholds are calculated as follows:

- The **transformation threshold** is calculated as the average of the ESG scores of all countries analysed. Countries that fall below the transformation threshold are classified as *non-sustainable*.
- The **sustainable leader threshold** is calculated from the average value of the ESG scores of those countries whose score is above the transformation threshold. Issuers that fall below the sustainable leader threshold and exceed the transformation threshold are categorised as transformation countries, provided they do not violate any exclusion criteria and/or there are no current controversies.

Only countries whose ESG score exceeds both sustainability thresholds can be classified as *sustainable*, provided they do not violate any exclusion criteria and there are no current severe controversies.

Classification of issuers

In the final step, the analysed countries are classified into three categories: *sustainable countries*, *transition countries* and *non-sustainable countries*. In addition to the sustainability limits, hard exclusion criteria and current controversies are taken into account. By definition, the assessment for a country (example: Federal Republic of Germany) also extends to downstream units in the state structure, but at least to the

Step 1: ESG score

Step 2: Sustainability thresholds form the basis of the classification

The sustainability thresholds are calculated on the basis of the ESG scores

Transformation threshold

Sustainable leader threshold

Step 3: Classification into sustainable countries, transition countries and non-sustainable countries

highest level below the central government (for the Federal Republic of Germany, these are the federal states, i.e., Bundesländer).

Exclusion criteria describe negatively formulated characteristics that result in issuers that exhibit one or more of these characteristics being categorised as *non-sustainable*. Four hard exclusion criteria are currently used in the DZ BANK Research analysis model. These are

Exclusions

- Application of the death penalty
- Violation of fundamental human rights (based on international agreements)
- Severe und extensive violations of fundamental principles of the International Labour Organization
- Significant and far-reaching restrictions on political freedom (as measured by the Freedom House assessment)

Countries that violate one or more of these exclusion criteria cannot be categorised as sustainable countries.

In addition to the exclusion criteria, sustainability controversies are also considered when categorising countries. Currently controversies exist in case the following topics apply:

Controversies

- Non-compliance with important international conventions, treaties and laws (with a focus on agreements in the areas of environmental and climate protection).
- The existence of international sanctions imposed by the EU or the USA based on resolutions from the UN Security Council.

In case of a controversy, the country is excluded from the sustainability universe or from the universe of transition countries. The application of the exclusion criteria and the controversy screening are based on raw data from Sustainalytics, whereby DZ BANK Research makes certain selections and groupings.

Based on the ESG score and the sustainability thresholds and after screening for exclusions and controversies, a country is categorised as either *sustainable country*, *transition country* or *non-sustainable country*:

Final categorisation

- **Sustainable countries:** Countries that exceed the transformation threshold and the Sustainable Leader threshold, do not violate any of the exclusion criteria and do currently not have any controversies. Countries classified as *sustainable* are labelled with the DZ BANK Seal of Quality for Sustainability (for example in DZ BANK Research publications).
- **Transition countries:** Countries that exceed the transition threshold (but not the Sustainable Leader threshold) and do not violate any of the exclusion criteria and do not currently have any controversies.
- **Non-sustainable countries:** Countries that fall below the transformation threshold (and therefore automatically also below the sustainable leader threshold). In addition, countries that exceed the transformation threshold and/or the sustainable leader threshold, but which violate one or more of the exclusion criteria and/or are currently showing controversies.

Special case: Evaluation of the European Union (EU)

The sustainability assessment of the European Union (EU) is derived from the information delivered by our data provider for the individual EU member states. The key for merging the respective data is the nominal GDP (GDP at market prices) published by Eurostat for the EU member states. An ESG score for the EU as a whole is then calculated from the respective ESG scores of the individual member states using the GDP weighting. Screening for exclusions and controversies is carried out in accordance with the criteria explained above. An exclusion and/or controversy applies to the EU if one or more EU member states, which in total account for more than 20 per cent of EU GDP at market prices, have an exclusion and/or controversy.

Accordingly, the EU is assessed as **sustainable** if the ESG score of the EU is above the determined limit of the Sustainable Leaders and exclusions and/or controversies only exist for countries that together account for less than 20 per cent of EU GDP at market prices.

The EU is classified as **transition country** (to stick with the terminology) if the EU's ESG score is above the transformation threshold – but below the sustainable leader threshold – and exclusions and/or controversies only exist for countries that together account for less than 20 per cent of EU GDP at market prices.

The EU is assessed as **non-sustainable** if the EU's ESG score is below the transformation threshold (and therefore automatically below the sustainable leader threshold) and/or there are exclusions and/or controversies for countries that together account for 20 per cent or more of EU GDP at market prices.

Evaluation of the EU is derived from the assessment of the member states

I. IMPRINT

Published by:

DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main,
Platz der Republik, 60265 Frankfurt am Main

Telephone: +49 69 7447 - 01

Telefax: +49 69 7447 - 1685

Homepage: www.dzbank.de

E-mail: mail@dzbank.de

Represented by the Board of Managing Directors:

Dr. Cornelius Riese (Chief Executive Officer), Souâd Benkredda,
Uwe Berghaus, Dr. Christian Brauckmann, Ulrike Brouzi, Johannes Koch,
Michael Speth, Thomas Ullrich

Chairman of the Supervisory Board: Henning Deneke-Jöhrens

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www.bvr.de/SE

Responsible for the contents: Dr. Jan Holthusen, Head of Research and Economics

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Other Research Information is independent client information which **does not contain any investment recommendations for specific issuers or specific financial instruments**. Such information **makes no allowance** for any individual investment criteria.

1.2 The **mandatory disclosures for Research Reports** (Financial Analyses and Other Research Information) as well as **further remarks, especially regarding the Conflicts of Interest Policy of DZ BANK Research, used methods, procedures and statistics**, can be read and downloaded free-of-charge under www.dzbank.com/disclosures.

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DZ BANK is supervised as a credit institution and as an investment firm by:

- **European Central Bank** - www.ecb.europa.eu
Sonnemannstraße 20 in 60314 Frankfurt / Main and
- **Federal Financial Supervisory Authority (BaFin)** - www.bafin.de
Marie-Curie-Straße 24 - 28 in 60439 Frankfurt / Main

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 - his compensation depends neither in full nor in part, neither directly nor indirectly, on an opinion expressed in this Research Report.

4. Categories for Evaluations / Statements in Other Research Information
Not every item of Other Research Information contains a statement on a certain investment or a valuation of this investment. The **categories for evaluations / statements** used in **Other Research Information** of DZ BANK are defined as follows.

4.1 Statements on Isolated Aspects of an Investment Decision

Statements on the **isolated evaluation of specific aspects** that **precede an investment recommendation** on a financial instrument and / or an issuer - **especially** according to the **sustainability criteria** defined by DZ BANK, its defined **value approach**, its defined **asset allocation** (DZ BANK Sample Portfolio), its defined sector strategy Euro-Stoxx (**DZ BANK Sector Favorites**), its defined valuation of payments to beneficiaries (**DZ BANK Dividend Aristocrats**), their **weighting recommendations for market segments** or otherwise defined groups of different issuers, i.e. their **weighting recommendations in the overall market strategy Fixed Income**, in the **sector strategy Corporates** and their **weighting recommendations for covered bond jurisdictions** - **are not investment categories** and therefore **do not contain any investment recommendations**.

These isolated statements **alone** are **not sufficient** to form the basis of an investment decision. Reference is made to the explanation of the used relevant methods.

4.2 Sustainability Analysis

Issuers of shares and bonds are analysed on the basis of predefined **sustainability factors** and classified in isolation as '**sustainable**' or '**non sustainable**'. For sovereigns, a classification as '**transformation state**' can be made that lies between these two classifications.

4.3 Share Indices

For defined share indices, share price forecasts are made at regular intervals. From the comparison between the current prices and the prepared forecasts on the development of such equity indices, **investment recommendations that are not generally definable and that cannot be defined in advance** may be developed.

4.4 Currency Areas

The assessment of an investment in a **currency area** is based on the total return that can be expected from an investment in the corresponding **currency area**. As a rule, this total return results primarily from the forecast exchange rate change. In addition, the general interest rate level and a possible change in the yield level of the bonds on the corresponding bond market to be taken into account are included in the assessment. A Sharpe ratio, which adjusts the expected yield using the average standard deviation of the total return over the past two years, is used to calculate which currency areas are "attractive", which are "unattractive" and which are "neutral".

"**Attractive**" means that the risk-adjusted exposure in the currency area is expected to show an above-average and positive return over the next six to twelve months.

"**Unattractive**" means that the risk-adjusted exposure in the currency area is expected to show a below-average and negative return over the next six to twelve months.

"**Neutral**" means that the risk-adjusted exposure in the currency area is expected to show relatively low or average returns over a period of six to twelve months.

The aforementioned returns are **gross returns**. The gross return as success parameter relates to bond yields before deduction of taxes, remunerations, fees and other purchase costs. This compares with the net return of a specific investment, which is not calculated and can deliver significantly lower returns and which measures the success of an investment in consideration of / after deducting these values and charges.

4.5 Weighting recommendations for market segments

Weighting recommendations for market segments or otherwise defined groups of different issuers, i.e. their **weighting recommendations in the overall market strategy Fixed Income**, in the **sector strategy Corporate Bonds** and their **weighting recommendations for Covered Bond jurisdictions**, **are not independent investment categories** and therefore **do not contain investment recommendations**.

These isolated statements **alone** are **not sufficient** to form the basis of an investment decision. Reference is made to the explanation of the used relevant methods.

In the case of recommendations on market segments or otherwise defined groups of different issuers, the terms "Overweight", "Underweight" and "Neutral weight" are used.

"Overweight" means that the aforementioned bond segment is expected to perform significantly better on a six-month horizon than the average of the other bond segments in coverage, both in the event of a positive and negative overall market trend.

"Underweight" means that the aforementioned bond segment is expected to perform significantly worse on a six-month horizon than the average of the other bond segments in coverage, both in the event of a positive and negative overall market trend.

"Neutral weight" means that the bond segment in question is expected to perform approximately in line with the average of the other bond segments in the coverage over a six-month period.

The weighting recommendations for market segments or otherwise defined groups of different issuers are independent of the recommendations for individual issuers or those of superordinate or subordinate market segments. They are relative, i.e. if not all the segments mentioned are weighted "Neutral", at least one bond segment is weighted "Overweight" and one bond segment is weighted "Underweight". Accordingly, the weighting recommendations are not an absolute statement about profit and loss (cf. DZ BANK methodological studies at www.dzbank.com/disclosures).

1. Overall market strategy

The weighting recommendations in the overall Fixed Income market strategy refer to the comparison of bond segments relative to one another. There are currently five bond segments in the overall market strategy: 1. Government Bonds, 2. Agency Bonds, 3. Covered Bonds, 4. Bank Bonds (senior unsecured), 5. Corporate Bonds (senior unsecured). Calculations of the total return are decisive for the expected performance. The weighting recommendations in the overall market strategy are independent of the weighting recommendations within the individual bond segments themselves, because the respective peer group within each individual bond segment is a completely different one. For example, weighting recommendations within government bond sector refer to issuer countries in relation to each other, which have no relevance at the level of weightings in the overall market strategy.

2. Sector strategy Corporate Bonds

In the corporate bond segment, we summarise the relative performance we expect of a sector in comparison with the developments forecast for the other sectors in a sector assessment. Calculations of the credit spread return are decisive for the expected performance.

3. Strategy Covered Bonds

Our weighting recommendations for Covered Bond jurisdictions ("country") are based on a comparison of the respective country segment (sub-index within the iBoxx € Covered Index) with the total index (iBoxx € Covered Index). The credit spread return is decisive for the expected performance.

4.6 Derivatives

For derivatives (Bund futures, Bobl futures, treasury futures, Buxl futures) the arrows (↑)(↓)(→) merely indicate the trend direction and do not contain any investment recommendation. The trend direction is derived solely from the use of generally recognised technical analysis indicators without reflecting an analyst's own assessment.

4.7 Commodities

"Upward arrow (↑)" means that the absolute price increase expected in the next twelve months is greater than 10%.

"Downward arrow (↓)" means that the absolute price decline expected in the next twelve months is greater than 10%.

"Arrow pointing to the right (→)" means that the absolute price change expected in the next twelve months will lie between +10% and -10%.

5. Updates and Validity Periods for Other Research Information

5.1 The frequency of updates of Other Investment Information depends in particular on the underlying macroeconomic conditions, current developments on the relevant markets, the current development of the analyzed companies, measures undertaken by the issuers, the behavior of trading participants, the competent supervisory authorities and the competent central banks as well as a wide range of other parameters. The periods of time named below therefore merely provide a **non-binding indication** of when an update may be expected.

5.2 No obligation exists to update an Other Investment Information. If an Other Research Information is updated, this update **replaces** the previous Other Research Information with immediate effect.

If no update is made, investment recommendations **end / lapse on expiry** of the **validity periods** named below. These periods **begin on the day** the Other Investment Information was **published**.

5.3 The **validity periods** for Other Research Information are as follows:

Sustainability analyses:	twelve months
Analyses according to the value approach :	one month
Asset allocation analyses (DZ BANK Sample Portfolio):	one month
Euro Stoxx Sector Strategy (DZ BANK Sector Favourites):	one month
Dividends (DZ BANK Dividend Aristocrats):	three months
Share indices (fundamental):	three months
Currency areas:	six to twelve months
Weighting recommendations for market segments	six months
Overall market strategy	six months
Sector strategy Corporate Bonds	six months
Strategy Covered Bonds:	six months
Derivatives	
(Bund futures, Bobl futures, treasury futures, Buxl futures):	one month
Commodities:	one month

5.4 In a given case, updates of Other Research Information may also be **temporarily suspended without prior announcement** on account of compliance with supervisory regulations.

5.5 If **no updates are to be made in the future** because the analysis of an object is to be discontinued, notification of this shall be made in the final publication or, if no final publication is made, the reasons for discontinuing the analysis shall be given in a separate notification.

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6.2 DZ BANK organizes its Research and Economics Division as a confidentiality area and protects it against all other organizational units of DZ BANK and the DZ BANK Group by means of Chinese walls. The departments and teams of the Division that produce Financial Analyses are also protected by means of Chinese walls spatial separation, physical barriers and a clean desk policy. Beyond the limits of these confidentiality areas, communication may only take place in both directions according to the need-to-know principle.

6.3 The Research and Economics Division does not disseminate Research Reports on issues of DZ BANK or on financial instruments issued by companies of the DZ BANK Group.

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6.6 The remuneration of employees of the Research and Economics Division depends neither in whole nor in the variable part directly or materially on the earnings from investment banking, trade in financial instruments, other securities related services and / or trade in commodities, merchandise, currencies and / or on indices of DZ BANK or the companies of the DZ BANK Group.

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	Head of MTN-Desk	+49 – (0)69 – 74 47 – 62 19	Maximilian Lainer

EQUITY SALES	Kai Böckel	+49 – (0)69 – 74 47 – 12 28	kai.boeckel@dzbank.de
Germany	Kai Böckel	+49 – (0)69 – 74 47 – 12 28	kai.boeckel@dzbank.de
Benelux	Lars Wohlers	+49 – (0)69 – 74 47 – 68 34	lars.wohlers@dzbank.de
Switzerland	Petra Bukan	+49 – (0)69 – 74 47 – 49 92	petra.bukan@dzbank.de
Austria	Thomas Reichelt	+49 – (0)69 – 74 47 – 67 09	thomas.reichelt@dzbank.de
UK	Lars Wohlers	+49 – (0)69 – 74 47 – 68 34	lars.wohlers@dzbank.de
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