# **Chapter 9**

### Sustainability and Sustainability Performance: Empirical Findings from the German Banking and Insurance Sectors

#### **Petra Kroflin**

Baden Württemberg Cooperative State University e-mail: kroflin@dhbw-ravensburg.de ORCID: 0000-0003-3714-8220

#### **Claudius Kroflin**

PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft e-mail: claudius.kroflin@pwc.com ORCID: 0009-0004-1520-7036

*Quote as*: Kroflin, P., & Kroflin, C. (2023). Sustainability and Sustainability Performance: Empirical Findings from the German Banking and Insurance Sector. In J. Dyczkowska (Ed.), *Sustainable Performance in Business Organisations and Institutions: Measurement, Reporting and Management* (pp. 149-170). Wroclaw: Publishing House of Wroclaw University of Economics and Business.

In order to understand the following chapter about sustainability reporting, some key constructs need to be defined and explained. These are sustainability, corporate social responsibility (CRS), Environmental, Social, and Governance (ESG), and sustainability reporting.

The essay of Malthus dating back to 1798 (as cited in Pufé 2014) about the mismatch between available resources and the constantly growing population is the first proof of sustainability in the academic context. The term 'sustainability', as used today, is the result of the Conference of the World Commission on Environment and Development in 1987. After this conference, the so-called Brundtland-report titled *Our common future* was issued (The World Commission on Environment and Development, 1990). This report redefines the relationship between economic development on the one hand and the natural environment on the other. The following definition of sustainable development is still one of the most prominent statements used in this context: 'Sustainable development

is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The basic idea is conservation. No generation has the right to damage the life of future generations by its own consumption of resources.

During the United Nations (UN) Conference in Rio de Janeiro in 1992, the Member States agreed on Agenda 21 (United Nations, 1993), which splits the term sustainability into the areas of ecological, social and economic sustainability (Pufé, 2014). This three-dimensional understanding of sustainability is the foundation of the following constructs of CSR and ESG: *Corporate social responsibility, once a good doing sideshow, is now seen as mainstream (Just good business,* 2008). CSR addresses the role that companies play within society to achieve sustainability goals (Arnold, 2011). This includes their responsibility towards external stakeholders, such as their ecological footprint, market and social involvement, and their internal stakeholders, described by working conditions and compliant behaviour. The need for transparent behaviour in the CSR framework highlights the need for sustainability reporting.



Figure 9.1. CSR and ESG

Source: https://news.skhynix.com/understanding-esg-from-investors-perspective/

ESG stands for Environmental, Social, and Governance. Although the terms ESG and CSR share many similarities, they are used in different contexts. ESG is primarily utilised in the financial sector to evaluate investments (Oberbauer, 2020). The concept of ESG enables investors to quantify the risks and opportunities

associated with their investments based on non-financial information. However, analysing such data can be highly complex. In order to simplify this process, rating agencies provide condensed information about a company's ESG performance and calculate ESG scores. These scores illustrate a company's ability to withstand long-term, industry-specific, and company-specific ecological, social, and governance risks. Figure 9.1 demonstrates the difference between CSR and ESG and their similarity.

Sustainability reporting stands for the process and result of measuring and reporting sustainability performance data to stakeholders. The data reported cover all areas of sustainability and are mostly divided into the three categories: environmental, social and governance.

In this chapter, sustainability is used as a term covering all relevant aspects of CSR and ESG as both are integral parts of the sustainability reporting.

In our study, the significant role of financial institutions in the sustainability landscape and the related sustainability reporting requirements inherent in their logical business model will be discussed.

Thus, the primary objective of this study is to examine whether the financial institutions under consideration have fulfilled these special requirements so far. Therefore, the first research question is:

### RQ1: Have the German financial institutions under consideration fulfilled the sector-specific reporting requirements during the observation period?

Moreover, prior research has established a correlation between sustainability performance and sustainability reporting. It has been found that negative performance leads to increased reported content. Additionally, a preference for quantitative data in sustainability reports has been observed, and a lack of links between quantitative and qualitative data has been noted. Furthermore, positive impacts of sustainability reporting on a company's perception by its shareholders have been reported. However, there is a paucity of data regarding the effect of sustainability reporting on sustainability performance, and more research is necessary in this regard. Although the research period is limited, and other factors influencing sustainability performance, apart from the reporting activity, were not included, this analysis aims to observe sustainability performance over time. Therefore, the second research question is:

### RQ2: Do the published metrics of the analysed financial institutions improve in the observation period?

To answer the first question, a scoring model was used. The degrees of fulfilment of economic, ecological and social standards were first weighted in general and then measured per financial institution, which finally resulted in a score. This score subsequently forms the basis for a conclusion whether a financial institution achieved a high, medium or low fulfilment score.

The second question has been analysed by a broad sample testing and by a descriptive statistics' analysis. 157 key performance indicators were identified, classified into the three sustainability areas and the measured performance per indicator and financial institution at the end of the observation period was compared to the performance at the beginning of the observation period. The data were used to draw conclusions on the level of financial institution but also on the level of sustainability dimension.

#### 9.1. Sustainability Reporting in Europe – an Overview

The requirement for companies to disclose non-financial information on sustainability topics was established in 2014 when the European Union issued guidelines mandating that large, incorporated companies and organisations submit sustainability reports (Non-Financial Reporting Directive, NFRD) (Directive 2013/34/EU).



Explanations: RUG: Implementation law; VO: Directive; Veröffentlichung: release; Umsetzung in nationales Recht: Conversion into National law; verpflichtende Anwendung: mandatory application

Figure 9.2. History of sustainability reporting in Germany

Source: https://kpmg.com/at/de/home/insights/2021/04/ueberarbeitung-der-eu-richtlinie-fuer-nach-haltigkeitsberichterstattung.html, with own adaptation.

The NFRD did not provide specific guidelines regarding the content of nonfinancial (i.e., sustainability) reports but required companies to publish such reports starting in 2017. In the same year, the EU Directive was transformed into national law (CSR Richtlinien Umsetzungsgesetz, CSR-RUG). To gradually elevate sustainability reports to the same level as financial reports, the EU issued the Corporate Sustainability Reporting Directive (CSRD) in 2021. This Directive was also enacted into national law in 2022, and consequently, reports for business periods beginning in 2023 must include sustainability reporting data. Instead of being published as separate chapters in the annual report, these reports must now be included in the management report section and are subject to audit procedures. Initially, audits will be conducted with limited assurance, which will eventually be replaced by audits with reasonable assurance. As a result of this law, the number of German companies reporting sustainability data is projected to increase from 11 600 in 2017 to 49 600 in 2023 (Wollmert & Hobbs, 2021). Chapter 2 of this monograph offers more detailed insights into the new European regulation.

The integration of sustainability reports into the management report elevates their importance and increases the level of formality. For instance, the principle of continuity requires companies to retain chosen performance indicators over multiple periods, allowing for year-to-year comparisons. This regulation helps reduce the potential for greenwashing, which involves selectively disclosing positive data while neglecting negative information. Another significant change concerns the essentiality of published information. German corporations have previously focused heavily on ecological information, outlining the risks they face due to ecological challenges (outside-in perspective). However, they must now also address the risks society will face due to their business practices, which create such risks (inside-out perspective). Chapters 6 and 7 of this monograph give examples of how to integrate ESG criteria into management reporting via balanced scorecards.

#### 9.2. Sustainability Performance

The obligation to publish a sustainability report ensures that sustainability remains a constant topic in organisations and opens up a discourse with all stakeholder groups. However, it is important to distinguish between measuring and publishing data and actually performing and measuring sustainability performance.

Sustainability performance involves a company defining clear sustainability goals and identifying suitable performance indicators. Sustainability reporting then reflects that the measured performance is used to control achievements measured at a clear strategy and, in doing so, improve sustainability outcomes (Bey, 2008).

The selection of relevant performance indicators is a key to making the report an instrument of sustainability control and not just a means of acquittal. Additionally, sustainability performance measurement depends on the continuity of selected indicators over time.

## 9.3. The Two-Way Interaction between Sustainability Reporting and Sustainability Performance

The relationship between sustainability reporting and sustainability performance can be analysed in both directions and from different perspectives (Table 9.1).

Correlation	Underlying research	Results
Sustainability reporting affects sustainability performance	Al-Tuwaijiri, Christensen, & Hughes (2004) Clarkson, Li, Richardson, & Vasvari (2008) Papoutsi & Sodhi (2020)	Ambiguous results further research necessary
Sustainability performance affects the scope of sustainability reporting	Hummel & Schlick (2013) Nazari, Hrazdil, & Mahmoudia (2017)	If the performance is poor, the scope of the report increases – proven
The measurability of sustainability aspects influences the scope of reporting	Cikanek & Landris (2019)	Preference for quantitative reporting content and insufficient linkage with non-quantifiable content demonstrated + proven
Sustainability reporting quality influences the perception of stakeholders	Frese & Colsman (2018) Wu & Pupovac (2019) Chauvey, Giordano-Spring, Cho, & Patten (2015)	Positive perception of detailed reports on share price and stakeholder perception demonstrated + proven

Table 9.1. Overview of existing research

Explanation: - inverse correlation, + positive correlation.

Source: own presentation.

The overview shows existing studies and categorises them into four relationship structures, including:

#### Influence of sustainability measurement and reporting on sustainability performance

While Al-Tuwaijri et al. (2004) and Clarkson et al. (2006) were able to demonstrate a positive relationship between reporting and performance in terms of waste production and waste gas emission (ecological indicators) of American companies, Papoutsi and Sodhi (2020) found opposite relationships. They could not prove any changes in the performance level, or they found some increasing and other decreasing performance indicators. Accordingly, there is a lack of clear evidence regarding the positive relationship between sustainability reporting and performance, which question the benefits of reporting for sustainability performance. However, the aforementioned inconclusive results could also be due to the fact that prior to 2017, there was no obligation and no framework to report. As a result,

154

there was no consistency in reporting, which significantly limited the analysis of indicators over time. In this respect, it is a concern of the present study to take up this connection once again and then analyse it in the empirical part for the target group of banks and insurance companies under investigation.

#### • Influence of sustainability performance on the scope of sustainability reporting

Various authors of further studies (Hummel & Schlick, 2008; Nazari et al., 2017) argue that sustainability reporting is used to positively influence the external perception of a company's poor sustainability performance and thus engage in greenwashing. In their empirical studies, they explain the negative correlation between sustainability performance and the extent of sustainability reporting by the fact that sustainability reports were intended to conceal unsatisfactory performance by deliberately reporting in detail and verbally on the relevant sustainability aspects. In addition, in the event of poor sustainability performance, not reporting on the corresponding key figures in such a case or only reporting verbally would deliberately omit the aspect of consistency. In this respect, the phenomenon of greenwashing seems to exist in previous reporting practices.

The future location of the sustainability report in the management report and the accompanying steadiness of reporting will counteract this practice.

In the following empirical study, greenwashing will not be investigated further, as this would require precise knowledge of good or poor absolute sustainability performance. In order to speak of greenwashing, the performance values achieved by the companies would have to be assessed as poor. However, such benchmarks have not been published to date, so it is impossible to assess the performance level of the companies studied from the outside.

The other two sets of relationships shown in the figure above are not discussed in further detail below. The focus of these studies is not on sustainability performance and its interaction with sustainability reporting but rather on the form of the reported content and the impact on stakeholders, which are not the subject of our investigation.

#### 9.4. Financial Institutions in the Context of Sustainability Reporting

The reporting practices of German financial institutions are regulated by various laws and guidelines. In particular, the obligation to publish sustainability reports applies to public interest entities, which includes all financial institutions regardless of their capital market orientation, as stipulated in § 316a HGB (*Handelsgesetzbuch*). As financial intermediators, these institutions fulfil these roles of size, maturity and risk transformation.

Given the importance of financial institutions in the economy and society, it is crucial for them to measure and report on their sustainability performance. This requires the identification of relevant performance indicators, which should be consistent over time to enable meaningful comparisons and track progress.

In Germany, financial institutions are divided into two main groups according to § 1 Abs. 19 KWG (*Kreditwesengesetz*, banking law): banks and insurance companies. Banks engage in activities such as lending, borrowing, and providing services such as investment banking and M&A support. The largest and, therefore, most important German banks are shown in Figure 9.3.

Name of the Institute	*	Total assets 2021	Total assets 2020
Deutsche Bank AG, Frankfurt/M.		1.323.993	1.325.259
DZ Bank AG, Frankfurt/M.		627.273	594.535
KfW, Frankfurt/M.		550.962	546.384
Commerzbank AG, Frankfurt/M.		473.044	506.613
Unicredit Bank AG, München		312.112	300.105
Landesbank Baden-Württemberg, Stuttgart		282.344	276.444

Figures in millions €.

Figure 9.3. Germany's largest banks by total assets

Source: https://de.statista.com/statistik/daten/studie/157580/umfrage/bilanzsumme-der-groesstenbanken-in-deutschland/

In the subsequent empirical research, the banks mentioned above were included, with one exception. Unicredit Bank AG was excluded from the sample due to its sustainability report being included in the Italian Unicredit corporate report and not published separately.

The central task and achievement of the insurance sector is the collectivisation of risk. Insurance businesses involve individuals expecting payment in case of a described incident, with the payment risk being spread over a large number of people undergoing the same risk. The German insurance landscape is categorised into individual and social insurance, both including various contracts. Individual insurance companies are often private, while social insurances are typically public corporations and, therefore, not included in our sample.



The subsequent empirical research considers the first five insurance companies (Figure 9.4). They all fall into the category of individual insurance companies.

Figures in millions €.



Source: https://de.statista.com/statistik/daten/studie/1901/umfrage/top-20-der-deutschen-versicherungen/

Financial institutions, such as banks and insurance companies, have a unique role in the sustainability reporting landscape due to their special functions in the economy. As intermediaries of finance, their responsibility for sustainability extends beyond their own actions to encompass the activities they facilitate through lending and borrowing. The impact of financial institutions on the sustainable and stable development of an economy is significant. Therefore, German financial institutions have been mandated to publish sustainability reports since 2017 as public interest entities, irrespective of their legal form, capitalisation, or capital market orientation. This makes them an important reference group for other companies regarding the quality of sustainability reporting in terms of relevance and regarding the effects of sustainability reporting on sustainability performance.

It is crucial to understand the unique sustainability needs of financial institutions, which can be viewed from three perspectives: the lender, borrower, and internal, to understand the outcome of the present analysis (Figure 9.5).



Figure 9.5. Areas of sustainability from a bank's perspective

Source: https://assets.openstax.org/oscms-prodcms/media/documents/Macroeconomics2e-OP\_ WRQqkIv.pdf, with own additions

#### Capital providers (lenders)

The sustainability of financial institutions is challenged in the area of capital provision, particularly with regard to the selection of clients and their sources of income. Furthermore, financial institutions must address issues related to money laundering and the potential undermining of legal and tax systems (Frese & Colsman, 2018). In order to promote sustainable banking practices, transparency and fairness must be prioritised during contract negotiations, and demand-oriented customer advisory practices must be implemented.

Experts, therefore, agree that the market for sustainable investment will continue to grow in volume over the next few years. From the providers' point of view, a corresponding demand from institutional investors will be quite essential for the development of the sustainable investment market. (Kopp, 2012, p. 556 [own translation])

Furthermore, the challenges of the entire banking system must be met through cooperation in order to support political goals (e.g., blocking boycott customers, SWIFT exclusion of Russian banks, etc.).

#### Capital users (borrowers)

On the side of lenders, transparency and customer orientation are crucial for sustainable banking practices. Bergset, Gebauer, & and Timme (2009) highlight

the issue of risky investments being recommended to customers who may not be aware of the risks or are unable to bear them, emphasising the need for demandoriented customer advisory practices. Similarly, banks and insurance companies should take a clear position on supporting non-sustainable activities such as environmentally damaging or socially questionable large-scale projects in emerging and developing countries. Exclusion criteria such as lignite mining or child labour should also be mentioned here. However, until 2010, only 3.4% of all investments met ESG criteria (Eurosif, 2008).

#### **Own actions (internal processes)**

After the financial crisis, banks faced a significant loss of trust and reputation. Moreover, a 10% reduction in staff has taken place due to cost-cutting reasons since the financial crisis. Thus, the establishment of transparency and fair treatment of employees is the main internal topics that financial institutions need to address.

It is noteworthy that, despite the ecological consequences of their actions, financial institutions' social behaviour as employers and service providers and their compliance practices should be the primary consideration in the context of internal process sustainability (Bergset et al., 2009; Frese & Colsman, 2018).

#### 9.5. Research Sample and Research Method

In order to answer the first research question, whether and to what extent the analysed financial institutions fulfilled sector specific reporting requirements, an adequate sample of financial institutions was established. The sample was chosen based on two criteria relevance of the institution for evidencing tendencies in the entire sector and data availability.

To better understand the banking market, it was analysed based on the market share of each institution by business volume.

As shown in Figure 9.6, the German banking market is divided into six segments: regional/other credit banks/branches of foreign banks, other credit institutions, saving banks, major banks, cooperative banks, and state-owned regional banks. The segments represented in the sample and the representing financial institution are:

- regional/ other credit banks/branches of foreign banks: not represented in the sample,
- other credit institutions: KfW,
- saving banks: not represented in the sample,
- major banks: Deutsche Bank AG, Commerzbank AG,
- cooperative banks: DZ Bank AG,
- state-owned regional banks: Landesbank BW (LBBW, Institution under public law).

#### Market share by business volume as of 12/31/2021



Figure 9.6. The German banking market by business volume

Source: https://de.statista.com/statistik/daten/studie/161141/umfrage/marktanteile-von-bankengruppen-in-deutschland-nach-geschaeftsvolumen/, with own adaptions.

The choice of the sample was based on the total assets of the institutions, as shown in Figure 9.6. The saving banks, even though representing an important market segment, could not be added to the sample, as this segment represents 359 regional saving banks and 140 smaller banks that publish a common report under the roof organisation Sparkassen Finanzgruppe. This sustainability report does not use the GRI or comparable frameworks and can, therefore, not be compared to any other reports. Altogether, the sample represents four of the six segments mentioned above and accounts for approximately 48% of the total German banking market (Bundesverband der Deutschen Volksbanken und Raiffeisenbanken, 2021).

Therefore, the selection of the five cases from the banking sector may serve as evidence of the trends and patterns observed in the sector, but since not all segments are included, the sample is not fully representative.

For the insurance market, the choice of examples has been made on the basis of premium income, as shown in Figure 9.4. The samples taken are<sup>1</sup>:

- Allianz Group SE (19.75%),
- ERGO Group AG as part of Münchner Rückversicherung AG (5.6%),
- Talanx AG (3.94%),
- R&V AG (6.35%),
- Debeka VVaG (5.02%).

<sup>&</sup>lt;sup>1</sup> Market share according to premium income in brackets.

As shown in Figure 9.4, Alliance Group is by far the biggest insurance company in Germany. Nevertheless, their market share earned in Germany is only 19.75%. The market is fragmented, and public insurance institutions are not included in the sample. The combined market share of the sample in the German insurance market, according to premium income, is approximately 40.66% (AssCompact, 2021). Since social securities as public organisations are not part of the sample, our study only evidences tendencies in the individual insurance sector.

While answering the first research question, which concerns the relevance of the published data in the sustainability reports, the following approach described in this subchapter was used.

In order to filter the reported sustainability KPIs, the selection considered the GRI standards referenced. The GRI Framework was developed by the multi--stakeholder organisation Global Reporting Initiative (GRI). According to KPMG, this framework is the global de facto standard for sustainability reporting (KPMG, 2014, p. 8).

In concrete terms, the sustainability reports of the companies examined were analysed to determine whether and to what extent the GRI standards specific to banking and insurance were taken into account. Their identification and selection were part of the analysis but are not further discussed in this chapter.

The aim of the analysis was to determine a score for each financial institution. First, the GRI standards used by the institutions were compared with the sector--specific requirements (Table 9.2). Then, for each company, an assessment was made of the extent to which it was already applying the required GRI standards in the reporting period. Each pillar of sustainability, economic, ecological, and

Economic	Environmental	Social
GRI 201 Economic Performance	GRI 302 Energy	GRI 401 Employment
GRI 203 Indirect Economic	GRI 303 Water and	GRI 403 Occupational Health and Safety
Impact	Effluents	GRI 404 Training and Education
GRI 205 Anti-Competitive	GRI 305 Emissions	GRI 405 Diversity and Equal Opportunity
Behaviour	GRI 306 Waste	GRI 406 Non-Discrimination
GRI 206 Anti-Corruption	GRI 307 Environmental	GRI 410 Security Practices
GRI 417 Marketing and	Compliance	GRI 413 Local Communities
Labelling		GRI 414 Supplier Social Assessment
GRI 419 Socioeconomic		GRI 418 Customer Privacy
Compliance		GRI 202 Market Presence
		GRI 308 Supplier Environmental
		Assessment

Table 9.2. GRI standards relevant to financial institutions

Source: own presentation.

social, was first considered separately. In the following, all the associated GRI standards in one pillar were checked individually for their use in the samples. The number of standards used in the complete observation period was then totalled for each of the three pillars and divided by the years of reporting. This resulted in the average number of GRI standards applied per pillar and company. The results for each company were then presented in a traffic light model.

Four implementation levels were defined in advance and assigned traffic light colours. The traffic light model reflects the following implementation levels. Each level was assigned points so that scores could be calculated later.

- High implementation, 4 points (100 75% use of required standards).
- Medium implementation, 3 points (75 50% use of required standards)
- Moderate implementation 2 points (50 25% use of required standards)
- Low implementation, 1 point (25 0% use of required standards).

	High compliance > 75% = 4 points	Medium compliance > 50% = 3 points	Low compliance > 25% = 2 points	No compliance < 25% = 1 point		
Number of standards reported						
Economic	6.00 – 4.50	4.50 – 3.00	3.00 – 1.50	1.50 – 0.00		
Ecological	5.00 – 3.75	3.75 – 2.50	2.50 – 1.25	1.25 – 0.00		
Social	11.00 – 8.25	8.25 – 5.50	5.50 – 2.75	2.75 – 0.00		

**Table 9.3.** Implementation levels based on the number of used GRI standards

Source: own presentation.

The next step was weighing the three sustainability dimensions.

Due to the varying importance for the financial sector, it would not be expedient to give each of the three sustainability pillars the same weight. In order to assign an implementation score to each company, which is the final objective of this analysis, the three sustainability dimensions have to be weighted with their different importance. Therefore, in the next step, each pillar was assigned a weighting factor, which was developed through a literature review and then validated by experts. The underlying literature analysis was demonstrated in each case by representative citations.

**Economic (weighting 40/100):** Banks bear a particularly strong responsibility for sustainable development. [...] By integrating sustainability aspects into services such as lending or asset management, banks [and insurance companies] can thereby exert a steering effect in favour of socially and ecologically compatible activities (Bergset et al., 2009, p. 54 [own translation]).

**Ecological (weighting 20/100):** The direct environmental impact of banking operations, while small, is present (Bergset et al., 2009, p. 56 [own translation]). Even if these are internal optimisations and even if there is not the same potential in this aspect as, for example, in manufacturing industrial companies, this nevertheless has a major signal effect (Frese & Colsman, 2018, p. 18 [own translation]).

**Social (weighting 40/100):** *Employees are one of the most important factors for success. Even if this applies in principle to every company, this point should be emphasised. Particularly through customer contact, they are the decisive driving force for the implementation of sustainability in day-to-day business* (Frese & Colsman, 2018, p. 19 [own translation]).

Not least in connection with the currently significant topic of job cuts, banks are faced with a high level of responsibility for their employees. [...] In this situation, possibilities for safeguarding employment must be explored in cooperation with the social partners, and measures must be developed to cushion operational changes in a socially acceptable manner (Bergset et al., 2009, p. 54 [own translation]).

The final section of the empirical study is devoted to the second research question. It examines whether an improvement in the sustainability performance of the institutions was observed during the study period. This section thus follows from the research of Al-Tuwaijiri et al. (2004), Clarkson et al. (2006), and Papoutsi and Sodhi (2020) mentioned in Table 9.1.

In order to establish a relationship between performance measurement and sustainability performance levels, a simplifying assumption had to be made. Therefore, external reporting was equated with an existing sustainability performance measurement. In other words, it was assumed that the performance indicators reported externally were also used internally to measure and manage performance. This is undoubtedly highly simplistic. However, a more in-depth analysis of internally used indicators was not possible due to the limited scope of this work and the confidentiality of such information.

Accordingly, to analyse sustainability performance during the period under review, key performance indicators were first identified that were presented in the report by each company using the relevant standards during the period under review. In doing so, only key figures that had not already been included in the financial report, e.g., turnover or profit, were deliberately analysed. Only in this way can a potential connection between reporting activity and performance be investigated and related to the sustainability reporting period. This enabled the analysis of the development of these key figures over time. In the course of the study, 157 different indicators were collected (34 economic, 42 ecological and 81 social), of which 50 were examined in more detail because all considered sample institutions constantly reported these. The LBBW reported on all indicators, Talanx only on 50. The analysed indicators are included in Table 9.4.

	Application	
1.	Equity ratio	Used by single
2–6.	Project financing of renewable technologies (divided into five KPIs)	institutions only
7.	Monetary value of products and services with ecological and social benefits	
8–10.	Sustainable public funds (divided into three KPIs)	]
11.	Total assets managed from a sustainable perspective	
12–15.	Total investment products with a sustainability focus (divided into four KPIs)	
16.	Sustainable structured bonds and certificates	]
17.	New business volume for promotional loans	
18–22.	Sustainable investments (divided into five KPIs)	Used by all
23-27.	Project financing for sustainable technologies (divided into five KPIs)	institutions
28.	Total volume of green bonds accompanied during issuance	Used by single
29.	Total volume of issued green bonds	institutions only
30.	Monetary value of products and services with ecological and social benefits	
31.	Sustainable insurance solutions	
32.	Promotional credit business	
33.	Funding volume in euros	
34.	Phase out of coal-based business models (divestment)	
	Social indicators	Application
1–13.	Promotion programs (divided into 13 KPIs)	Used by single institutions only
14.	Employee feedback culture	
15 10		Used by all
15-19.	Diversity of the Workforce (divided into five KPIs)	Used by all institutions
20-25.	Diversity of the Workforce (divided into five KPIs) Corporate Social Responsibility (CSR) projects (divided into six KPIs)	Used by all institutions Used by single
20–25. 26–33.	Diversity of the Workforce (divided into five KPIs) Corporate Social Responsibility (CSR) projects (divided into six KPIs) Employee engagement (divided into eight KPIs)	Used by all institutions Used by single institutions only
20–25. 26–33. 34.	Diversity of the Workforce (divided into five KPIs) Corporate Social Responsibility (CSR) projects (divided into six KPIs) Employee engagement (divided into eight KPIs) Donations	Used by all institutions Used by single institutions only
20–25. 26–33. 34. 35–60.	Diversity of the Workforce (divided into five KPIs) Corporate Social Responsibility (CSR) projects (divided into six KPIs) Employee engagement (divided into eight KPIs) Donations Employee overview (divided into 26 KPIs)	Used by all institutions Used by single institutions only Used by all institutions
20–25. 26–33. 34. 35–60. 61–64.	Diversity of the Workforce (divided into five KPIs) Corporate Social Responsibility (CSR) projects (divided into six KPIs) Employee engagement (divided into eight KPIs) Donations Employee overview (divided into 26 KPIs) Use of working time models (divided into 4 KPIs)	Used by all institutions Used by single institutions only Used by all institutions Used by single
20–25. 26–33. 34. 35–60. 61–64. 65.	Diversity of the Workforce (divided into five KPIs)         Corporate Social Responsibility (CSR) projects (divided into six KPIs)         Employee engagement (divided into eight KPIs)         Donations         Employee overview (divided into 26 KPIs)         Use of working time models (divided into 4 KPIs)         Measures for health care	Used by all institutions Used by single institutions only Used by all institutions Used by single institutions only
13-19.         20-25.         26-33.         34.         35-60.         61-64.         65.         66-74.	Diversity of the Workforce (divided into five KPIs)         Corporate Social Responsibility (CSR) projects (divided into six KPIs)         Employee engagement (divided into eight KPIs)         Donations         Employee overview (divided into 26 KPIs)         Use of working time models (divided into 4 KPIs)         Measures for health care         Employee development (divided into 10 KPIs)	Used by all institutions Used by single institutions only Used by all institutions Used by single institutions only
13-19.         20-25.         26-33.         34.         35-60.         61-64.         65.         66-74.         75.	Diversity of the Workforce (divided into five KPIs) Corporate Social Responsibility (CSR) projects (divided into six KPIs) Employee engagement (divided into eight KPIs) Donations Employee overview (divided into 26 KPIs) Use of working time models (divided into 4 KPIs) Measures for health care Employee development (divided into 10 KPIs) Discrimination cases	Used by all institutions Used by single institutions only Used by all institutions Used by single institutions only
13-19.         20-25.         26-33.         34.         35-60.         61-64.         65.         66-74.         75.         76.	Diversity of the Workforce (divided into five KPIs) Corporate Social Responsibility (CSR) projects (divided into six KPIs) Employee engagement (divided into eight KPIs) Donations Employee overview (divided into 26 KPIs) Use of working time models (divided into 4 KPIs) Measures for health care Employee development (divided into 10 KPIs) Discrimination cases Work and commuting accidents	Used by all institutions Used by single institutions only Used by all institutions Used by single institutions only
13-19.         20-25.         26-33.         34.         35-60.         61-64.         65.         66-74.         75.         76.         77.	Diversity of the Workforce (divided into five KPIs) Corporate Social Responsibility (CSR) projects (divided into six KPIs) Employee engagement (divided into eight KPIs) Donations Employee overview (divided into 26 KPIs) Use of working time models (divided into 4 KPIs) Measures for health care Employee development (divided into 10 KPIs) Discrimination cases Work and commuting accidents Cases of corruption	Used by all institutions Used by single institutions only Used by all institutions Used by single institutions only
13-19.         20-25.         26-33.         34.         35-60.         61-64.         65.         66-74.         75.         76.         77.         78.	Diversity of the Workforce (divided into five KPIs) Corporate Social Responsibility (CSR) projects (divided into six KPIs) Employee engagement (divided into eight KPIs) Donations Employee overview (divided into 26 KPIs) Use of working time models (divided into 4 KPIs) Measures for health care Employee development (divided into 10 KPIs) Discrimination cases Work and commuting accidents Cases of corruption Fines and sanctions for violations of the law	Used by all institutions Used by single institutions only Used by all institutions Used by single institutions only
13-19.         20-25.         26-33.         34.         35-60.         61-64.         65.         66-74.         75.         76.         77.         78.         79.	Diversity of the Workforce (divided into five KPIs) Corporate Social Responsibility (CSR) projects (divided into six KPIs) Employee engagement (divided into eight KPIs) Donations Employee overview (divided into 26 KPIs) Use of working time models (divided into 4 KPIs) Measures for health care Employee development (divided into 10 KPIs) Discrimination cases Work and commuting accidents Cases of corruption Fines and sanctions for violations of the law Fines and sanctions for violations of the law	Used by all institutions Used by single institutions only Used by all institutions Used by single institutions only
13-19.         20-25.         26-33.         34.         35-60.         61-64.         65.         66-74.         75.         76.         77.         78.         79.         80.	Diversity of the Workforce (divided into five KPIs) Corporate Social Responsibility (CSR) projects (divided into six KPIs) Employee engagement (divided into eight KPIs) Donations Employee overview (divided into 26 KPIs) Use of working time models (divided into 4 KPIs) Measures for health care Employee development (divided into 10 KPIs) Discrimination cases Work and commuting accidents Cases of corruption Fines and sanctions for violations of the law Fines and sanctions for violations of the law Complaints regarding the privacy of customer data	Used by all institutions Used by single institutions only Used by all institutions Used by single institutions only

#### Table 9.4. Selection of sustainability KPIs

	Ecological indicators	Application
1–5.	Energy and electricity from renewable sources (divided into five KPIs)	Used by single
6–11.	Paper consumption (divided into six KPIs)	institutions only
12–19.	Waste produced (divided into eight KPIS)	Used by all
20–24.	Water consumption (divided into five KPIs)	institutions
25–34.	Emissions (divided into 10 KPIs)	
35.	Heat consumption	Used by single
36.	Sustainability rating	institutions only
37–42.	Energy sources (divided into six KPIs)	

Source: own presentation.

Since the observation period of five years is short, and the question of improvements is being investigated, the performance levels achieved in the initial year – 2017 – were compared with the final level in 2021, so the intervening period was initially disregarded. There was also no evaluation of the absolute performance levels achieved nor of the scope of improvements. The aim of the study was merely to identify changes within the period under review, not to evaluate the performance levels or improvements achieved.

#### 9.6. Research Findings and Discussion

By multiplying the implementation levels (numbers of GRI Standards referenced) by the weighting factors, it was finally possible to determine an implementation score per company. This indicates how relevant the current reporting content of each of the institutions considered is with regard to the required GRI standards. The overview in Table 9.5 summarises the results that are central to this chapter.

It is evident that R&V AG scores the highest in all areas of sustainability reporting. Other financial institutions scoring high and achieving the green traffic light are Talanx AG as well as the two banks LBBW and KfW, both Institutes of Public Rights. In each economic, ecological and social category, they use the required GRI standards of 75% or more and thus achieve the highest score per pillar and overall.

Münchner Rückversicherungs AG and DZ Bank also achieve a high level of implementation in the economic and ecological categories but can only demonstrate a medium level of implementation in the social category. They thus achieve a score of 3.6.

Commerzbank only achieves a medium implementation in each of the three areas, resulting in a score of 3.0. Deutsche Bank can demonstrate a high implementation for the ecological area but only a medium implementation in the

Financial institution	Framework	Specific standards reported	Points	Score
Deutsche Bank	Reporting according to the GRI score 12.2 out of 22 on average			2.8
	Economic (40%)	3.4 out of 6	3	1.2
	Ecological (20%)	4.2 out of 5	4	0.8
	Social (40%)	4.6 out of 11	2	0.8
DZ Bank	Reporting according to the GRI score	18.8 out of 22 on average		3.6
	Economic (40%)	6.0 out of 6	4	1.6
	Ecological (20%)	5.0 out of 5	4	0.8
	Social (40%)	7.8 out of 11	3	1.2
KfW	Reporting according to the GRI score	19.6 out of 22 on average		4.0
	Economic (40%)	5.4 out of 6	4	1.6
	Ecological (20%)	4.8 out of 5	4	0.8
	Social (40%)	9.4 out of 11	4	1.6
Commerzbank	Reporting according to the GRI score	15.4 out of 22 on average		3.0
	Economic (40%)	3.8 out of 6	3	1.2
	Ecological (20%)	3.4 out of 5	3	0.6
	Social (40%)	8.2 out of 11	3	1.2
LBBW	Reporting according to the GRI score	21.2 out of 22 on average		4.0
	Economic (40%)	5.6 out of 6	4	1.6
	Ecological (20%)	5.0 out of 5	4	0.8
	Social (40%)	10.6 out of 11	4	1.6
Allianz	Reporting according to the GRI score	14.4 out of 22 on average		3.2
	Economic (40%)	4.4 out of 6	3	1.2
	Ecological (20%)	4.0 out of 5	4	0.8
	Social (40%)	6.0 out of 11	3	1.2
Münchner	Reporting according to the GRI score	17.6 out of 22 on average		3.6
Rück	Economic (40%)	6.0 out of 6	4	1.6
	Ecological (20%)	4.2 out of 5	4	0.8
	Social (40%)	7.4 out of 11	3	1.2
Talanx	Reporting according to the GRI score	20.0 out of 22 on average		4.0
	Economic (40%)	6.0 out of 6	4	1.6
	Ecological (20%)	5.0 out of 5	4	0.8
	Social (40%)	9.0 out of 11	4	1.6
R&V	Reporting according to the GRI score	21.6 out of 22 on average		4.0
	Economic (40%)	6.0 out of 6	4	1.6
	Ecological (20%)	5.0 out of 5	4	0.8
	Social (40%)	10.6 out of 11	4	1.6
Debeka	Reporting according to the GRI score	6.8 out of 22 on average		2.0
	Economic (40%)	1.8 out of 6	2	0.8
	Ecological (20%)	2.0 out of 5	2	0.4
	Social (40%)	3.0 out of 11	2	0.8

Table 9.5. Sustainability reporting scores

Source: own presentation.

economic area and only a moderate implementation in the social area. Considering the low weighting of the ecological aspect and the high weighting of the social aspect, Deutsche Bank only achieves a score of 2.8.

The scores of Debeka VVaG are rather low, which is a methodological consequence of lacking reports in 2017 and 2018.

Overall, this assessment shows that a high level of sector-specific relevance based on GRI standards exists for most institutions. Nevertheless, it also points to a need for improvement at some institutions.

It is also noticeable that overall, there is a high level of quality in the area of ecology, although this area is of secondary importance compared with the areas of economy and social sustainability. This contrasts with the sometimeslow quality of implementation in the area of social sustainability. However, this area, in particular, is of high importance in view of the still persisting image loss of the industry.

This suggests that there is currently still a certain preference for popular and easy-to-survey indicators, while the industry-specific focus is still to improve.

The authors surveyed the performance level of the sample companies at the end of the observation period and compared it with the baseline level in 2017 using the indicators outlined in Table 9.4. Altogether, 157 indicators were analysed. Only the LBBW considered all these indicators in their sustainability report. Oher institutions reported only on certain parts of the metrics, not all.

Institution	Amount of KPIs analysed	Eco- nomic	There of im- proved	Ecolo- gical	There of im- proved	Social	There of im- proved	Total amount of improved KPIs	
								No	%
Deutsche Bank	90	1	1	36	31	53	24	56	62.2
BZ Bank	83	11	7	28	20	44	18	45	54.2
KfW	72	15	10	25	13	32	10	33	45.8
Commerzbank	96	13	9	19	16	64	15	40	41.7
LBBW	157	34	26	42	30	81	38	94	60.5
Allianz	120	25	20	29	26	66	38	84	70.0
Műnchner Rűck	65	7	6	23	20	35	16	42	64.6
Talanx	50	3	3	13	8	34	21	32	64.0
R&V	69	13	11	28	19	28	15	45	65.2
Debeka	101	21	17	31	22	49	22	61	60.4
<b>Total</b> (Improvement)	903	143	<b>110</b> (77%)	274	<b>205</b> (75%)	486	<b>217</b> (45%)	532	58.9

Table 9.6. Sustainability improvements

Source: own presentation.

This analysis was initially carried out at the institute level, with a distinction being made in each case between the three sustainability pillars. This allowed an assessment of the improvements of each institute, but also a statement on cross-institute improvements at the level of the sustainability dimensions.

It is evident that eight out of ten companies improved more than half of the selected key figures in the period under review. 70% of the key figures of Allianz AG improved, while the figure for Commerzbank AG was only 41.7%. The improvements of all other companies ranged between these two values. On average, 58.9 % of the indicators improved.

Different trends emerged for the three sustainability dimensions. In the area of economic sustainability, the companies succeeded in showing the most significant improvement in the indicators. 77% of the indicators examined here showed an improvement compared with the baseline level of 2017. The fewest key figures improved in the social area during the observation period. Here, only 45% of the key indicators showed positive development. The ecological indicators' improvement accounted for 75%. Given the high importance of social sustainability for banks and the rather subordinated importance of ecological sustainability, the results demonstrate a preference for high-profile metrics like waste production and carbon emission. The research also shows a need to catch up in terms of focusing on the bank- and insurance-specific issues and improvements in these areas.

#### 9.7. Conclusions

Altogether, the results do not indicate that, at this stage, the publication of sustainability reports gives any indication that a sustainability strategy has been defined, targets derived and a performance measurement system introduced in the companies considered, which then underlies the changes in sustainability performance.

Nevertheless, the study presented is not without limitations. Of course, the German banking and insurance sector, even though playing a major role in the European financial sector, is not representative for the whole market. Other countries' financial institutions should be included in the sample or analysed in more detail. As one example, Chapter 10 reveals insights into the sustainability reports of large Italian banks. Also, it must be considered that the key performance indicators chosen have been selected depending on availability. A more relevance-based selection could enhance the quality of the results.

The expansion of the reporting obligation as well as the constantly increasing attention of the public will lead to further investigations in the near future. In this context, companies will increasingly open up to the topic and include it in their strategic objectives. In this respect, an improvement in sustainability performance

can also be expected in the longer term. Future studies should revisit the impact of sustainability reporting on sustainability performance because the data situation improves with each additional year of mandatory reporting.

#### References

- Al Tuwaijri, S., Christensen, T., & Hughes, K. (2004). The relations among environmental disclosure, environmental performance and economic performance: A simultaneous approach. *Accounting, Organisations and Society*, *29*(5-6), 447–471. DOI:10.1016/S0361-3682(03)00032-1
- Arnold, S. (2011). Die Kommunikation gesellschaftlicher Verantwortung am nachhaltigen Kapitalmarkt. Konzeptuelle Grundlegung eines kommunikativen Handlungsfeldes der Kapitalmarktkommunikation Wiesbaden: VS Verlag für Sozialwissenschaften. DOI:10.1007/978-3-531-93337-5
- AssCompact. (2021). Welche Versicherer Marktanteile gewonnen oder verloren haben. Retrieved from https://www.asscompact.de/nachrichten/welche-versicherer-marktanteile-gewonnen-oder-verloren-haben
- Bergset, L., Gebauer, J., & Timme, S. (2009). Branchenkriterien Banken. Anforderungen an die Nachhaltigkeitsberichterstattung: Kriterien und Bewertungsmethode im IÖW/future-Ranking. Berlin & Münster, pp. 53–65. Retrieved from http://www.rankingnachhaltigkeitsbericht.de/ pdf/2009/Branchen\_PDFs/ Branchenpapier\_Banken.pdf
- Bey, C. (2008). Beitrag der Nachhaltigkeitsberichterstattung zum nachhaltigen Unternehmen. In R. Isenmann & J. Marx (Eds.), *Internetbasierte Nachhaltigkeitsberichterstattung* (pp. 37–50). Berlin: Erich Schmidt.
- Bundesverband der Deutschen Volksbanken und Raiffeisenbanken. (2021). Jahresbericht des Bundesverbandes der Deutschen Volksbanken und Raiffeisenbanken. Retrieved from https://www.bvr.de/p.nsf/0/034AE264A0333457C125884500311EF3/%24FILE/220510\_BVR\_JB\_DS.pdf
- Chauvey, J. N., Giordano-Spring, S., Cho, C. H., & Patten, D. (2014). The normativity and legitimacy of CSR disclosure: evidence from France. *Journal of Business Ethics*, *130*(4), 789–803. DOI:10.1007/s10551-014-2114-y
- Cikanek, S. J. & Landriss, C. (2019). Nachhaltigkeitsberichterstattung im Bankensektor Eine Analyse der Berichtspraxis deutscher Universalbanken im Lichte des CSR-Richtlinie-Umsetzungsgesetzes. Hagen: NWB.
- Clarkson, P. M., Li, Y., Richardson, G. D., & Vasvari, F. P. (2006). Revisiting the relation between environmental performance and environmental disclosure: An empirical analysis (Accounting, Organisations and Society, CAAA 2006 Annual Conference Paper. Rotman School of Management Working Paper No. 07-07).
- Directive 2013/34/EU on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings (OJ L 182, 29.6.2013).
- Eurosif. (2008). European SRI Study. Retrieved from https://thegiin.org/research/publication/european-sri-study/
- Frese, M. & Colsman, B. (2018). *Nachhaltigkeitsreporting für Finanzdienstleister*. Wiesbaden: Springer. DOI:10.1007/978-3-658-17217-6
- Hummel, K. & Schlick, C. (2013). Zusammenhang zwischen Nachhaltigkeitsperformance und Nachhaltigkeitsberichterstattung – Legitimität oder Finanzielle Überlegung. *Die Unternehmung*, 67(1), 36–61. DOI:10.5771/0042-059X-2013-1-36
- Just good business. (2008). The Economist, January 19, 2008. Retrieved from https://www.economist. com/special-report/2008/01/19/just-good-business

- Kopp, H. (2012). Nachhaltigkeit/CSR in der Bankenwirtschaft: Ein Investment in die Zukunft. In A. Schneider, R. Schmidpeter (Eds.), *Corporate Social Responsibility* (pp. 549–558). Berlin, Heidelberg: Springer.
- KPMG. (2014). Corporate Social Responsibility, aktuelle Trends der Berichterstattung. *Assurance Magazin*, (3), 20–26.
- Nazari, J. A., Hrazdil, K., & Mahmoudia, F. (2017). Assessing social and environmental performance through narrative complexity in CSR reports. *Journal of Contemporary Accounting & Economics*, 13(2), 166–178. DOI:10.1016/j.jcae.2017.05.002
- Oberbauer, M. (2020). ESG (Environmental, Social und Governance) Kontroversen börsen-notierter Unternehmen in empirischer Betrachtung. Retrieved from https://epub.jku.at/obvulihs/content/ titleinfo /4945220
- Papoutsi, A. & Sodhi, M. S. (2020). Does disclosure in sustainability reports indicate actual sustainability performance? *Journal of Cleaner Production*, 260, 653–700. DOI:10.1016/j.jclepro.2020. 121049
- Pufé, I. (2014). Was ist Nachhaltigkeit? Dimensionen und Chancen. Retrieved from https://www.bpb. de/shop/zeitschriften/apuz/188663/was-ist-nachhaltigkeit-dimensionen-und-chancen
- The World Commission on Environment and Development (1990). *Our common future*. Oxford, New York: Oxford University Press.
- United Nations. (1993). Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3–14 June 1992, Vol. I: Resolutions Adopted by the Conference. Retrieved from https://www.un.org/esa/dsd/agenda21/Agenda%2021.pdf
- Wollmert, P. & Hobbs, A. (2021). *How the EU's new sustainability directive will be a game changer*. Retrieved from https://www.ey.com/en\_no/assurance/how-the-eu-s-new-sustainability-di-rective-will-be-a-game-changer
- Wu, D. & Pupovac, S. (2019). Information overload in CSR reports in China: An exploratory study. Australasian Accounting, Business and Finance Journal, 13(3), 3–28. DOI: 10.14453/aabfj.v13i3.2

#### Websites

- https://assets.openstax.org/oscms-prodcms/media/documents/Macroeconomics2e-OP\_WRQqklv. pdf
- https://de.statista.com/statistik/daten/studie/1901/umfrage/top-20-der-deutschenversicherungen/
- https://de.statista.com/statistik/daten/studie/157580/umfrage/bilanzsumme-der-groesstenbanken-in-deutschland/
- https://de.statista.com/statistik/daten/studie/161141/umfrage/marktanteile-von-bankengruppenin-deutschland-nach-geschaeftsvolumen/
- https://kpmg.com/at/de/home/insights/2021/04/ueberarbeitung-der-eu-richtlinie-fuernachhaltigkeitsberichterstattung.html, with own adaptation
- https://news.skhynix.com/understanding-esg-from-investors-perspective/