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Assessing Sustainable Development Goals' implementation at the business level: Evidence from leading European Banks

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ABSTRACT

The United Nations' Sustainable Development Goals (SDGs) reflect grand challenges the global community needs to address if we are to ensure economic welfare, environmental quality as well as social cohesion and prosperity for future generations. In this respect, the role of the Banking Sector, among other critical business entities and key stakeholders, is vital. The purpose of this paper is to examine the reported performance of banks over SDG endorsement, by employing a comparative assessment methodology relying on the well-established indicators of the Global Reporting Initiative (GRI) disclosed in stand-alone sustainability reports. Focusing on a small sample of leading European Banks in terms of sustainability management, we find that they disclose low contribution to SDGs in their reports along with considerably heterogeneous contribution to each SDGs. The most comprehensively reported SDGs tend to be linked to existing bank strategies while the critical importance of GRI indicators with multifaceted impact across several SDGs seem to be overlooked. The paper highlights managerial implications in terms of effectively improving reported SDG performance along with future research perspectives on SDG monitoring and performance appraisal within the enterprise.

Keywords: Sustainable Development Goals (SDGs), Banking Sector, Global Reporting Initiative (GRI) guidelines, quantitative study, sustainability.

1. Introduction

The SDGs' declaration on 2015 was an important step and their achievement is critical for setting the world on trajectory towards a better future. *"We are the first generation that can end poverty, and the last one that can take steps to avoid the worst impacts of climate change",* the former UN Secretary-General, Ban Ki-moon, aptly summarized regarding the 2030 Agenda for Sustainable Development and the 2015 Paris Agreement on climate (UN, 2015a).

The contribution to the SDGs seems to be the only option for mankind and the planet and everyone's involvement including governmental bodies, transnational organizations, civil society, the private sector as well as the scientific community, is necessary. According to the UN Global Compact (2017) the international business community is rapidly embracing the 17 SDGs, commonly referred to as "Global Goals". In this respect, the role of the banking sector is deemed to be vital as SDGs' implementation requires a significant amount of capital flows to be distributed and invested.

Since the SDGs' declaration, several business entities, banks included, have started making references on their relative contribution through various communication and stakeholder engagement channels, e.g. the corporate website, the stand-alone sustainability report or through press releases and dedicated reports on SDGs' implementation status (e.g Citigroup). According to a PricewaterhouseCooper's (PwC) study, 62% of companies mentioned the SDGs in their disclosure outlets, while 79% of companies that prioritized the goals emphasized on SDG13 (Climate Action) and 28% of companies set quantitative targets linked to their societal impact for at least one KPI (PwC, 2017). Likewise, 72% of companies subscribed to UN's Global Compact are stating they are taking action on the SDGs (UN Global Compact, 2017). Focusing on the banking sector, what about the overall bank's operations? How could they be assessed in a manner that facilitates comparative analyses between different organizations, time periods or in order to provide an overview of sector trends?

With this in mind, this study proposes a structured framework for comparative assessment of the Banks' overall operation concerning SDGs' contribution. To achieve this, sustainability reports prepared according to the GRI guidelines - the most widely-accepted nonfinancial reporting framework - are utilized. Such analysis is based on the correspondence of the 17 SDGs to specific subsets of GRI performance indicators, already identified by the SDG Compass (https://sdgcompass.org/), an initiative developed by the GRI, the UN Global Compact and the World Business Council for Sustainable Development (WBCSD) (GRI, UN Global Compact, WBCSD, 2015).

The assessment method is implemented to a small sample of European banks considered pace-setters in sustainability management according to the Dow Jones Sustainability Indices (the de facto family of stock market indices in terms of sustainability performance among those developed around the globe). Raut et al. denote that European banks are more concerned on environmental, social and governance issues, corroborated by the relative number of signatories to the Equator Principles and the support of the UNEP-FI statements as well by taking into consideration the higher contribution of the European banking system to the overall finacial intermediation as well as to the EU GDP in comparison to other advanced economies (Raut et al., 2017).

The rest of this study is structured as follows. Section 2 includes a short literature review concerning the SDGs and the emerging practice of sustainability reporting with a special focus on the banking sector. Section 3 outlines the sample identification, the assessment methodology employed and the data gathering approach. The results of the analysis are presented in section 4 while in the final section the results are discussed and relevant conclusions are drawn.

2. Background

In this section, an overview of the literature is presented concerning SDGs, sustainability reports - the primary mechanism through which companies disclose information on their sustainability performance- along with the current status of sustainability reporting in the banking sector.

2.1 The SDGs

The discussion on sustainable development, focusing on its economic, social and environmental perspectives is led by the United Nations since late 1940s. The convergence of the development agendas of the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP) the World health organization (WHO) the United Nations Children's Fund (UNICEF) the United Nations Educational, Scientific and Cultural Organization (UNESCO); and other development agencies was achieved through the Millennium Declaration and Millennium Development Goals (MDGs) (Kumar, 2016).

In September 2015, world leaders (Heads of State, government leaders, UN high-level representatives and civil society members) adopted the 2030 Agenda for Sustainable Development, including 17 SDGs and 169 (sub-)targets. Coming in force on January 2016 and being built upon the Millennium Development goals, the 17 SDGs aim to end poverty, fight inequality and injustice, tackle climate change, while ensuring that no laggards are left during such development processes (UN, 2015b).

The SDGs consist of three clusters. The first group consists of the first seven Goals and it includes the extension of the MDGs for 2030. The main theme of the second group of Goals and targets is built around the notion of inclusiveness and includes the following three Goals: SDG8: Decent work and economic growth, SDG9: Industry, Innovation and Infrastructure, and SDG10: Reduced inequalities. The remaining seven Goals pertain to the thematic cluster of urbanization vis-à-vis sustainability endorsement (Kumar, 2016).

Policy-makers that adopted the 2030 Agenda for Sustainable Development made a *"…call on all businesses to apply their creativity and innovation to solving sustainable development challenges*" (UN,2015b. p.29) as there is a consensus that the SDGs can only be achieved with the active involvement of the private sector working alongside Governments, Parliaments, the UN system and other international institutions, local authorities, civil society members, the scientific and academic community – and society at large.

The Financial Services industry, including banks, is a key enabler for the real economy. In this respect, the transition to a sustainable and inclusive global economy by 2030 requires vast amounts of capital, estimated at $5-7 trillion each year (UN, 2014). Most of these funds are to drawn from the private sector and financial institutions therefore have a central role to play redirecting mainstream funds to promote sustainable growth and improving access to financial services so no one becomes laggard in this transition. According to the UN Global Compact and the KPMG International, financial services support improved economic well-being which consequently increases the ability of households and the public sector to improve social outcomes (UN Global Compact and KPMG International, 2015). The biggest opportunities for shared-value creation are grouped around the following themes: Access to capital (financial inclusion), investments in renewable energy and other infrastructure projects, risk assessment (leveraging risk expertise to directly influence customer behavior and to create more resilient nations) and cross-cutting perspectives (positively influencing environmental, social and governance practices of corporate clients and investee companies). Moreover, according to the same report, SDGs provide a unique opportunity for companies to create added-value through developing, for example, products and services for consumers of low income, improving employees' well-being, as well as that of their contractors along with their suppliers' productivity output.

2.2 Corporate sustainability reporting

Corporate sustainability reporting indicates, according to World Business Council for Sustainable Development, "*public reports by companies to provide internal and external stakeholders with a picture of corporate position and activities on economic, environmental and social dimensions. In short, such reports attempt to describe the company's contribution toward sustainable development.*" (WBCSD, 2002, page 7).

There are several alternative approaches in devising sustainability report contents (Yongvanich & Guthrie, 2006) such as the Triple Bottom Line (TBL), the Intellectual Capital (IC) framework and the Balanced Scorecard (BSC). Yet, the Global Reporting Initiative (GRI) set of guidelines is internationally accepted and constitutes the most widely-acknowledged framework for sustainability-nonfinancial reporting. The first version of the GRI Guidelines was launched in 2000, representing the first global framework for comprehensive sustainability reporting. The second, third and forth versions, were launched in 2002, 2006 and 2013 respectively. Although the forth version of GRI guidelines (GRI-G4) is currently in place, it is to be replaced in mid-2018 by the GRI Standards (www.globalreporting.org/standards/). The GRI framework is fundamentally based on the application of the triple bottom line - economic, social, and environmental performance- and its implementation allows tracking performance over time and between different companies as it promotes the application of comparable and verifiable indicators. It should be noted that the external/third-party assurance of sustainability disclosures is of critical importance in the GRI framework as it has a direct effect on the credibility and integrity of the overall accountability process.

Prior research suggests that banks who adopt sustainability principles tend to have significantly better performance on asset and equity returns (Shen et al., 2014), as well as increased revenue while there is negative correlation with nonperforming loans (Wu and Shen, 2013). In a similar vein, Forcadell and Aracil (2017) suggest that strengthening the reputation of banks through the incorporation of sustainability-related practices in everyday operations eventually improves their overall performance. Nevertheless, Weber et al. (2014) indicate that the sector's performance is relatively low in sustainability terms. Weaknesses of the financial sector in terms of sustainability management have been pinpointed to be its external reporting-accountability practices, aspects pertaining to business ethics and product responsibility as well as labor issues. In contrast, relative strengths of the financial sector regarding sustainability endorsement can be found in the community relations domain (Weber et al., 2014).

Well-established approaches in evaluating the content of sustainability reports according to Evaggelinos et al. (2009) can be grouped into three general categories: content analysis methods, questionnaire-based surveys and evaluation assessments through scoring schemes. The last group, where the present study contributes to, classifies sustainability information in different scales according to their quality and comprehensiveness and quantifies it based on quantitative grading scheme, allowing the ranking of reports and facilitating comparability between them. International organizations such the United Nations Environmental Program (UNEP) and Deloitte Touche Tohmatsu have developed some-widely accepted guidelines to evaluate these reports (e.g. see Morhardt et al., 2002). Motivated by these approaches and given that the GRI is currently the primary mover in sustainability reporting, in this study a scoring method based on GRI performance indicators has been devised and appropriately adapted to assess SDGs' endorsement.

2.3 The Down Jones Sustainability Index

Even though there are many indices concerning ratings of corporate sustainability (e.g the FTSE4Good Index Series, the Carbon Disclosure Project Leadership Index or the MSCI ESG Indexes), the Dow Jones Sustainability Index (DJSI) is the most well-established one and considered most credible among the 16 most broad investor-oriented ratings (Sadowski et al., 2010). Supporting evidence for this claim can be found in a study conducted as a part of the Rate the Raters project where over 100 ratings were inventoried and a global group of sustainability experts on certain aspects of ratings and related issues where surveyed (Sadowski et al., 2010).

The DJSI was launched in September 1999 and over time regional indices were launched, forming the family of Dow Jones Sustainability Indices. According to the DJSI, this family is the first global sustainability benchmark and tracks the stock performance of the world's leading companies in terms of economic, environmental and social criteria. Created jointly by S&P Dow Jones Indices and RobecoSAM, the DJSI combines the experience of an established index provider with the expertise of a specialist in sustainability rating and investing to select the most sustainable companies across 60 industries. The RobecoSAM Corporate Sustainability Assessment (CSA) is the annual evaluation of companies' sustainability practices classifying business entities with outstanding performance to gold, silver and bronze class.

3. Material and method

3.1 Sample identification and data collection process

The assessment methodology is applied to five leading European banks in terms of sustainability management (Table 1). The sample was selected based on the following criteria. First, we opted for banks included in the "Banks" category of the 2017 Dow Jones Sustainability Index (DJSI) which relies on the RobecoSAM Corporate Sustainability Assessment (CSA). Second, selected banks were limited to those having received a distinction in the RobecoSAM CSA, i.e. included in the 2017 bronze, silver or gold class for their sustainability management practices (based on supplied 2016 data).Third, the sample was limited to the banks registered to European countries. As no European bank is included in the gold class classification, the sample comprised of only silver and bronze class organizations. Fourth, sample organizations should disclose their sustainability performance under the GRI-G4 reporting framework. In order to facilitate comparability across the sample's reports, we did not opt for the latest version of the GRI framework (the 'GRI Standards') as most companies have yet to adopt this relatively very new set of guidelines in preparing their reports. Thus, one bank which has adopted the "GRI Standards" was excluded from the sample, as was one more that did not disclose a GRI Contents Index, the navigation tool necessary in making information traceable, increasing the value of the reported data and the transparency of the report.

A two-stage data collection process was employed to gather the most recent nonfinancial reports of the selected banks. At the first stage, the GRI Database (database.globalreporting.org/) was visited and a related search using the bank's name and the respective reporting year was conducted. In the second stage, for those banks whose nonfinancial report could not be traced in the GRI Database, a dedicated search on the corporate website was performed. The reporting period for all banks referred to the calendar year of 2016.

Table 1
The sample of Bank's of Business themes and GRI Indicators per SDGs

Bank	DJSI class	Country	Site	Sustainability Report title	Additional References Reviewed†
B1: Skandinaviska EnskildaBanken AB (SEB)	Brown	Sweden	https://sebgroup.com	2016 Sustainability Report	Sustainability Fact Book and GRI index, Code of Conduct
B2: Banco Santander SA	Silver	Spain	https://www.santander.com	Sustainability Report 2016	Auditors' report and annual consolidated accounts,Consolidated Directors' Report,Annual corporate governance report, Santander Group General Code of Conduct, Report of the Committees-Report of the Remuneration Committee.
B3: CaixaBank SA	Brown	Spain	https://www.caixabank.com	Integrated Corporate Report 2016	2016Socioeconomic Impact Report, CaixaBank Group Statutory Documentation 2016, 2016 Consolidated Financial Statements, 2016 Annual Corporate Governance Report, CaixaBank Code of Business Conduct and Ethics, Regulations of the Board of Directors, Corporate Social Responsibility Policy, 2016 Annual Report on Directors' Remuneration.
B4: Intesa Sanpaolo SpA	Brown	Italy	https://www.intesasanpaolo.com	Sustainability Report 2016	Report on Corporate Governance and Ownership Structures Report on Remuneration, Intesa Sanpaolo "Carbon Disclosure Project" questionnaire, Report and consolidated financial statements ofthe Intesa Sanpaolo Group as at 31 December 2016,Code of ethics.
B5: BNP Paribas SA	Brown	France	https://group.bnpparibas/en	2016 Report on Activity and Corporate Responsibility	Registration Document and Annual Financial Report 2016, BNP Paribas Supplier's CSR Charter, The BNP Paribas group Code of Conduct.

† Data sources included in the assessment in addition to the sustainability report documentation and were reviewed, according to pertinent, location-specific, references in the GRI Contents Index.

3.2 SDG-GRI correspondence and reporting assessment

In order to evaluate the reporters' endorsement of SDGs using the GRI performance metrics, a linkage between the two is essential. To establish such interconnection, the SDG Compass was employed (GRI, UN Global Compact, WBCSD, 2015) which links each one of the 17 SDGs with an individual set of business themes and to a specific set of GRI performance indicators. The GRI indicators used in our assessment pertain to both standard GRI-G4 performance metrics as well as GRI-G4 Sector Supplement indicators corresponding to the Financial Services (FS) sector (Appendix 1).

According to the SDG Compass correspondence, each business theme could link to none, one or multiple GRI indicators. Business themes which were not linked to any generic or FS indicator were excluded from the assessment. For these 44 business themes, lack of information does not reflect suboptimal reporting but rather sustainability goals not applicable to the banking industry (e.g. food labeling). For business themes corresponding to multiple GRI indicators, the business theme score was a function of the average score in the GRI indicators linked to it. Finally, for business themes corresponding to single GRI indicators, the GRI indicator score reflects the business theme score.

Certain GRI indicators require information that is broader than the information needed for to provide a SDGs implementation progress. For those indicators, the evaluation process was adapted by placing emphasis on these performance aspects of the GRI indicator which are directly relevant to SDG. Thus, there are cases of reporters whose GRI reporting scores can vary from their evaluation scores within the scope of this SDG-focused assessment. Such cases occurred when the bank reported effectively the SDG-relevant aspects of the GRI indicator but reported insufficiently aspects which are rather not relevant to the SDG. For instance, the SDG5 business theme "Women in Leadership" corresponds to the G4-LA12 indicator which assesses the equal membership of individuals in governance bodies in terms of gender, age group and minority status. If the reporter provides full and systematic reporting on gender representation in the G4-LA12 indicator, the respective score would be high. However, if the reporter provides full and systematic reporting on minority status representation but not on gender, the score is low and the business theme and SDG score are affected accordingly. To ensure consistency in the linkage between the GRI indicators, the SDG business themes and the SDGs, the online Inventory of Business Indicators of SDGs Compact (https://sdgcompass.org/business-indicators/) was also taken into consideration.

The process followed to perform the reporting assessment started with a search for the GRI Contents Index. These tables located in each sustainability report or in a separate document highlight which GRI-G4 indicators are disclosed in the sustainability report or in any other reporting document of the bank such as the annual report along with their location (supplementary material reviewed are mentioned in the last column of Table 1) or the corporate website. In this respect, only clear and accurate references to specific information/section of the website or other material were taken into consideration. For each one of these indicators, the respective sections were visited and evaluated based on the scoring system described in the following section.

3.3 Scoring System

A scoring system was developed to assess the reporting standards of the selected banks. In line with prior relevant research (Skouloudis et al., 2009; 2010; 2011), the scoring system attempts to rate qualitative information (corporate report statements) using 5-point scale quantitative measurement instrument for SDG reporting performance. Scores reflect the report's ability to provide detailed information on each one of the applicable GRI indicators of the business themes pertaining to the 17 SDGs. Under this scoring system, 0 points are assigned when no information relevant to the GRI indicator is reported, 1 point for generic statements lacking detailed figures/information, 2 points for detailed, yet limited information, 3 points for extensive reporting, and the maximum score of 4 points for full and systematic reporting of information.

Given that some business themes include a higher number of GRI indicators than others as well as some SDGs concerning the number of business themes they include (e.g. SDG8 includes 24 relevant business themes while SDG17 includes only 2), the assumption that all GRI indicators contribute equally to business themes and all business themes to SDGs respectively, was deemed to be appropriate for this analysis. Consequently, the score of each business theme is estimated as the mean of points assigned to the individual generic or FS-specific GRI indicators referring to the respective business theme. Likewise, the score for every SDG is estimated as the mean of the scores of all related business themes. No weighting criteria were applied to the business theme evaluation. The total score is estimated as the sum of all SDG scores divided by 17. As a result, both the score per SDG as well as the total score per Bank had maximum score of 4.

An overview of the number of the Business themes and GRI Indicators system is presented in Table 2.

Table 2
Number of Business themes and GRI Indicators per SDGs

SDG	No. of Business Themes	No. of GRI Indicators
1. No Poverty	6	10
2. Zero Hunger	4	5
3. Good Health and Well-being	5	11
4. Quality Education	2	2
5. Gender Equality	8	16
6. Clean Water and Sanitation	7	15
7. Affordable and Clean Energy	4	10
8. Decent Work and Economic Growth	24	43
9. Industry, Innovation and Infrastructure	4	7
10. Reduced Inequalities	5	16
11. Sustainable Cities and Communities	3	3
12. Responsible, Consumption and Production	12	24
13. Climate Action	4	14
14. Life Below Water	5	15
15. Life on Land	5	19
16. Peace, Justice, and Strong Institutions	11	32
17. Partnerships for the Goals	2	2
Total	111	244
Total individual Business Themes/ GRI Indicators	68	71

4. Findings

The analysis of reporting practices of the five selected banks is summarized across four dimensions: (1) aggregate reporting performance across banks, (2) reporting per SDG criterion, (3) reporting across specific business themes within SDG criterion, and (4) reporting per GRI indicator.

4.1 Reporting performance across banks

An overview of reporting performance for all banks across the defined criteria is presented in Table 3 and illustrated in Figure 1.

The overall assessment of reporting performance across banks reveals several interesting findings. First, the reporting performance of all banks is considerably low. The mean reporting performance score across banks is 0.78 in the 0-4 scale. Practically, this score suggests that the selected banks fail to cover SDG reporting goals when developing their GRI-based sustainability reports. This performance does vary across the five banks. The best performing bank is Intesa Sanpaolo SpA which scores higher than any other bank in 13 out of the 17 SDG criteria. Additionally, it is the only bank which consistently achieves scores close to 2 points in most of the SDG criteria. It should also be noted that this bank includes a correspondence in the GRI Index Table of the disclosed GRI indicators with the SDGs. The other four banks demonstrate average reporting scores which do not exceed the value of 1, suggesting either a lack of reporting around SDG objectives or very generic statements lacking details on sustainable practices.

The inspection of the standard deviation of average reporting scores across banks indicates that there is significant variability in SDG criterion reporting even within the same bank, as evidenced by standard deviations (Table 3) which, in some cases, exceed mean reporting scores(e.g for CaixaBank SA standard deviation is 1 while the mean reporting scoer is 0.69). Thus, the reporting scores are not equally distributed across criteria, and for some banks, the average score is driven by a good performance in one SDG criterion which drives the overall performance score up in the presence of very poor reporting performance in all other criteria. For instance, Caixabank received the third higher reporting score (0.69/4) despite scoring lower than other banks in many criteria just because it placed emphasis on a certain SDG (SDG4). Although the small sample and subsequent data points do not allow for a robust statistical testing of this finding, it is likely that banks' reporting performance is not evenly spread out across sustainability goals but rather focus on a smaller set of sustainability dimensions while disregarding others.

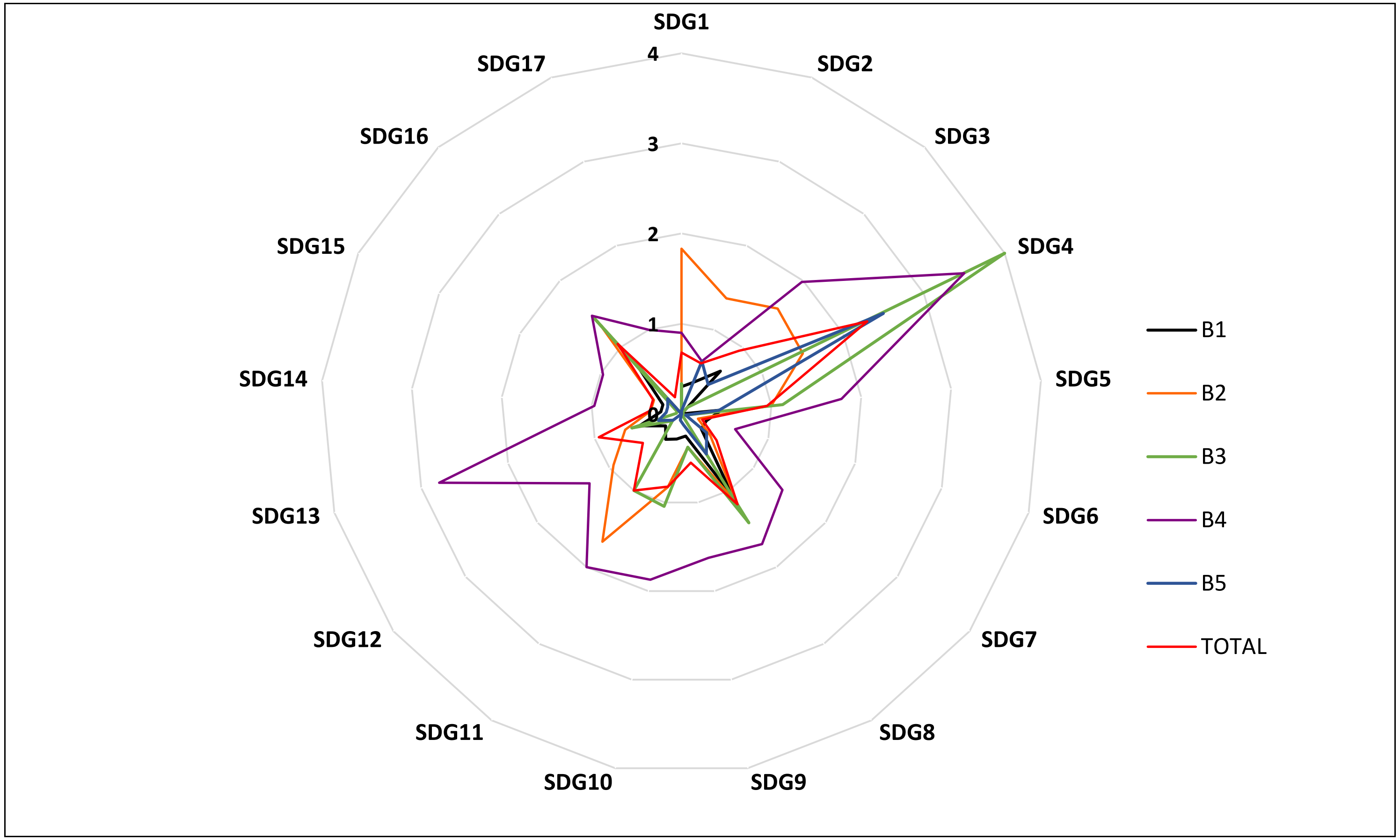

Figure 1: SDGs Score per Bank

Table 3:
Overview of reporting performance for all banks across SDGs criteria

BANK	SDGs																	Mean Reporting Performance	Standard Deviation
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
B1	0.30	0.38	0.64	0.00	0.45	**0.29**	0.28	1.08	0.25	0.28	0.33	0.22	0.49	0.23	0.23	0.73	0.00	0.36	0.26
B2	**1.83**	**1.38**	1.58	1.50	1.00	0.19	0.40	1.18	0.38	0.83	1.67	0.94	0.65	0.34	0.34	1.35	0.00	0.91	0.58
B3	0.33	0.00	0.10	**4.00**	1.13	0.05	0.00	1.42	0.38	1.04	1.00	0.13	0.57	0.06	0.06	1.46	0.00	0.69	1.00
B4	0.90	0.63	**1.98**	3.50	**1.78**	0.62	**1.40**	**1.70**	**1.63**	**1.87**	**2.00**	**1.28**	**2.79**	**0.97**	**0.97**	**1.47**	**1.00**	1.56	0.76
B5	0.03	0.63	0.44	2.50	0.42	0.05	0.35	0.53	0.13	0.07	0.00	0.12	0.26	0.17	0.17	0.23	0.00	0.36	0.58
TOTAL	**0.68**	**0.60**	**0.95**	**2.30**	**0.95**	**0.24**	**0.49**	**1.18**	**0.55**	**0.82**	**1.00**	**0.54**	**0.95**	**0.35**	**0.35**	**1.05**	**0.20**	**0.78**	0.49

4.2 Reporting by SDG criterion

Focusing on the 17 SDGs, it becomes apparent that the overall low reporting performance can to a large extent be observed across individual reporting criteria (Table 3). Out of the 17 SDG-criteria, it is only three that exceed, on average, the score of 1 point in the 0-4 scale. Specifically, the most well-reported SDG is SDG4 ("Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all") reaching a score of 2.30/4, followed by SDG8 ("Promote sustained, inclusive, sustainable economic growth, full productive employment, and decent work for all") with a 1.18/4 score and SDG16 ("Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels") with a score of 1.05/4. In contrast, the SDG criteria with the lowest scores are SDG17 ("Strengthen the means of implementation and revitalize the global partnership for sustainable development"); score:0.20/4, SDG6 ("Ensure availability and sustainable management of water and sanitation for all"); score: 0.24/4, SDG14 ("Conserve and sustainably use the oceans, seas and marine resources for sustainable development"); score: 0.35/4, and SDG15 ("Protect, restore and promote sustainable use of terrestrial ecosystem, sustainability, manage forests, combat desertification and halt reverse land degradation and halt biodiversity loss"); score: 0.35/4.

Despite the overall low reporting performance, subtle differences in the ranking of SDG performance reporting scores suggest that there might be industry effects in reporting which drive the discrepancies in those scores. Financial institutions' core business does not extensively revolve around the management of environmental resources such as water, forests, land and marine infrastructure, thus rendering sustainability reporting around these areas as potentially secondary and/or redundant to assess their sustainability practices. In direct contrast, the key resource employed by banks is human capital whose promotion and preservation is likely assessed as more important in their reported actions and disclosed practices. A PwC survey (PwC,2017) concerning corporate sustainability reports of the same year (2016) points out that, in some cases, prioritization of SDGs is due to their alignment with existing business strategy. The same study indicates as top priority SDGs for financial institutions SDG13, SDG8, SDG4 and SDG11 as well as SDG3, all of which are included in the top 7 of the results of this analysis (Table 4). Similarly, businesses subscribed to the Global Compact place comparatively more emphasis on SDGs 8, 3, 5, 4, 12, 9 and 13 with only two of those not included in top 7 of this analysis: SDG12 - "Responsible consumption" and SDG9 - "Innovation and infrastructure" (UN Global Compact, 2017).

Table 4
Top 7 and Bottom 7 SDG criteria and their scores

Rank	Top 7		Bottom 7	
	SDGs	Score	SDGs	Score
1	4	2.30	17	0.20
2	8	1.18	6	0.24
3	16	1.05	15	0.35
4	11	1.00	14	0.35
5	13	0.95	7	0.49
6	3	0.95	12	0.54
7	5	0.95	9	0.55

The assessed banks have included in their reports a clear reference of their contribution to certain SDGs according to initiatives they implement. In Table 5 an overall review of the banks' claims vis-à-vis the results of this study. The comparison highlighted 6 out of 85 cases where the reporting entity claimed that it contributes to a specific SDG through specific initiative(s), without such claim being confirmed in the analysis.

Table 5:
Overview of SDGs contribution according to Banks' claim and this study

BANK	**SDGs**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
B1	x	x	x	✓	x ✓	x ✓	x	x ✓	x ✓	x	x	x	x ✓	x	x	x ✓	✓
B2	x	x	x ✓	x ✓	x ✓	x	x	x ✓	x	x ✓	x ✓	x ✓	x ✓	x	x	x	
B3	x ✓	✓	x ✓	x ✓	x	x ✓	✓	x ✓	x ✓	x ✓	x	x	x ✓	x ✓	x ✓	x ✓	
B4	x ✓	x ✓	x ✓	x ✓	x ✓	x ✓	x ✓	x ✓	x ✓	x ✓	x ✓	x ✓	x ✓	x ✓	x ✓	x ✓	x
B5	x ✓	x ✓	x ✓	x ✓	x ✓	x ✓	x ✓	x ✓	x ✓	x ✓	✓	x ✓	x ✓	x ✓	x ✓	x ✓	✓

(**x**) according to this study and
(✓)according to bank's claim

4.3 Reporting by SDG business themes

Scores across business themes show significant variation in reporting performance similar to SDG criteria. The highest scores (Table 6) are obtained for business themes referring to employment practices such as those of general employment (2.07/4), youth employment (3.00/4) as well as employee training and education (2.23/4). High reporting scores were also assigned for business themes related to inclusiveness and diversity in the workplace such as gender equality (2.60/4), participation of women in leadership roles (2.13/4) and diversity and equal opportunities (2.00/4). Finally, a set of business themes referring to ethical concerns also received above average reporting scores with particular attention to privacy protection activities (2.40/4) as well as ethical and lawful behavior (2.13/4). Across all these business themes average reporting scores are equal to or exceed the value of 2 points suggesting an adequate, albeit not extensive, disclosure of performance information. These business themes almost exclusively fall within the generic SDG criteria where highest average scores were achieved suggesting considerable correlation between business themes and general SDG criteria, as expected.

In contrast, ~15% of all individual business themes (13 out of 68) are not discussed at all in the five sustainability reports, thus receiving a zero points score. These business themes include among others water efficiency and water quality linked to SDGs 6 and 7, infrastructure investments linked to SDGs 5, 7, 9, 11. Crucially, these business themes span across 13 out of the 17 SDGs, leaving only 4 SDGs for which non-zero reporting scores are obtained for all underlying business themes. This trend suggests that sample banks do not follow the SDG rationale when deciding which activities to report on but rather tend to focus on more concrete and explicitly-defined performance areas (corresponding to lower level business themes) in their reporting practices. Zero scores are obtained in business themes within SDGs that the sample banks scored both relatively high (e.g. SDG8 business themes such as the elimination of forced or compulsory labor) and relatively low (e.g. SDG14 business themes such as marine biodiversity). It is worth noting, though, that some of these results can be attributed to (a) either industry specificities as is the case with generic SDG criteria (e.g. reporting on water discharge to oceans which is unrelated to financial institution operations), or to (b) sample specificities emerging from the sample composition which includes only financial institutions largely operating in countries where certain sustainability-related practices (e.g. abolishment of child labor) are strictly prescribed by the national legal-regulatory framework.

Since some business themes are employed in the assessment of more than one SDG, an additional analysis was conducted to investigate whether business themes that are used multiple times in the assessment of SDG criteria tend to be given higher assessment scores. To investigate this further, a correlation analysis was conducted between the number of times a business theme score is used to assess an SDG business theme and the average reporting score obtained for the corresponding SDG criterion ($n_{busness\_themes}$ = 68). Surprisingly, the results suggest that indicators that are used to assess more than one SDG business themes tend to be assessed with lower average SDG reporting scores (r = -0,259, p= 0.033). This implies that when reporting sustainable practices, the sample financial institutions may ignore the critical importance of business themes which have multifaceted impacts across several SDGs. For example, although not included in the top 10 business themes scoring, “Environmental investments” is related to SDGs 7, 9, 12, 13, 14, 15 and 17, “Infrastructure investments” is related to SDGs 2, 5, 7, 9 and 11, “Access to financial services” is related to SDGs 1, 8, 9 and 11, “Energy efficiency” is related to SDGs 7, 8, 12 and 13, while business theme “Equal remuneration for women and men” is related to SDGs 5, 8 and 10.

Table 6
Top 10 Business themes and their scores

Rank	**Top 10**	
	Business theme	**Score**
1	Youth employment	3.00
2	Economic performance	2.60
3	Gender equality	2.60
4	Protection of privacy	2.40
5	Employee training and education	2.23
6	Ethical and lawful behavior	2.13
7	Women in leadership	2.13
8	Employment	2.07
9	Access to affordable housing	2.00
10	Diversity and equal opportunity	2.00

4.4 Disclosure of GRI performance indicators

Scores across GRI indicators reveal significant variation in comprehensiveness, similar to SDGs and business theme scores. The highest scores (Table 7) are obtained for GRI indicators linked to general standard disclosures of the GRI-G4 guidelines (e.g. issues concerning the workforce, organization's values and code of conduct) and not to performance indicators (e.g. environment, social, human rights).

Similar to the business themes findings, some GRI indicators are used for the assessment of more than one SDG business theme. Following a correlation analysis between the number of times a GRI indicator score is used to assess an SDG business theme and the average reporting score obtained for the corresponding SDG criterion ($n_{GRI\_indicators} = 71$) the results suggest that indicators that are used to assess more SDG business themes tend to be assessed with lower average SDG reporting scores ($r = -0.258$, $p = 0.030$), implying that indicators with disclosure impact across mutliple sustainability goals are not prioritized-emphasized. Such GRI indicators are G4-EN31 ("Total environmental protection expenditures and investments by type") relevant for SDGs 7, 9, 12, 13, 14, 15 and 17, G4-EC8 ("Significant indirect economic impacts, including the extent of impacts") which is relevant for SDGs 1, 2, 3, 8, 10 and 17, as well as G4- EN27 ("Extent of impact mitigation of environmental impacts of products and services") linked to SDGs 6, 8, 12, 13, 14 and 15 (Appendix 2). Additionally, it demonstrated that there is significant room for improvements in sustainability reporting by focusing on certain critical-key GRI indicators when these tend to be relevant to multiple SDG business themes.

Moreover, although 19 out of top 23 most-frequently disclosed GRI indicators (according to the methodology applied - Appendix 2) are environmental indicators, such as EN31 ("Total Environmental Protection Expenditures and investments by type"), it is only one that was included in the top 10 score-related GRI indicators, i.e. EN16 ("Energy indirect greenhouse gas (GHG) emission (Scope 2)"). This may be attributed to the sample banks' participation to the Carbon Disclosure Project (CDP) corroborating the assumption that companies prioritize SDGs according to long-standing reporting commitments to third-party sustainable business standards they support such as CDP (PwC, 2017).

Table 7
Top 10 GRI Indicators and their scores

Rank	Top 10	
	GRI Indicators	**Mean**
1	G4-11	4.00
2	G4-56	3.20
3	G4-EN16	2.40
4	G4-10	2.40
5	G4-39	2.40
6	G4-58	2.40
7	G4-53	2.20
8	FS10	2.00
9	G4-43	2.00
10	FS7	1.84

5. Discussion and concluding remarks

This study provides a comparative assessment methodology concerning the banking sector's reported contribution to SDGs relying on information disclosed in corporate sustainability reports. Following relevant modifications it can be applied to different business sectors as well. The proposed methodology follows a scoring system approach for nonfinancial reports which does not evaluate companies' performance per se but rather the completeness of the performance information included in the report (Skouloudis et al, 2009). Consequently, it assesses the banks' disclosed claims and supporting evidence on their contribution to SDGs rather than actual performance.

The results of the proposed methodology implementation highlight a rather limited reporting performance on overall SDGs contribution with unequal reporting comprehesiveness per different SDG for the sample banks. Moreover, it can be assumed that banks of the sample do not follow the SDG rationale when opting for which activities to report. The aforementioned claim is also supported by the fact that the reports evaluated are referring the reporting period of 2016, which is actually the first year that the 17 SDGs came into force.

From a managerial perspective, although this study evaluates the reporting performance concerning SDGs, it can be considered as a stepping stone and perhaps a prerequisite for better performance monitoring and management on such aspects. Moreover, focusing on GRI indicators and business themes which are relevant to multiple SDGs can potentially improve disclosure contents and overall comprehensiveness under the SDG reporting scope. Such business themes and indicators are "Environmental investments", "Infrastructure investments", "Access to financial services", "Energy efficiency", "Equal remuneration for women and men" and G4-EN31, G4-EC8, G4-EN27 respectively. In this respect, and in order to prioritize policy for more effective contribution to the SDG and the reported progress over achieving those, it should also be taken into consideration that SDGs can be largely complementary and in some cases dependent upon one another (Singh et al., 2017).

Future research could examine the implementation of the proposed methodology according to the GRI Standards (GRI, UN Global Compact, WBCSD, 2017) including the SDG targets analysis. Monitoring the organizational reporting performance over time–in relation to the pertinent EU adaptation of the 2030 Agenda for Sustainable Development (European Union, 2017) is also proposed. Furthermore, a relevant study including larger samples as well as banks outside Europe might also provide fruitful and actionable insights.

6. References

Citigroup Inc. 2017. Banking on 2030: Citi & the Sustainable Development Goals [online] Available at: http://www.citigroup.com/citi/about/citizenship/download/Banking-on-2030-Citi-and-the-SDGs-Report.pdf?ieNocache=68 [Accessed 30 Apr. 2018]

European Union. 2017. A sustainable European future: The EU response to the 2030 Agenda for Sustainable Development. [online] Available at: http://www.consilium.europa.eu/en/ press/press-releases/2017/06/20/agenda-sustainable-development/ [Accessed 30 Apr. 2018]

Evangelinos K, Skouloudis A, Nikolaou I, Filho WL. 2009. An Analysis of Corporate Social Responsibility (CSR) and Sustainability Reporting Assessment in the Greek Banking Sector. In: *Idowu S., Leal Filho W. (eds) Professionals' Perspectives of Corporate Social Responsibility*, 1st ed. Berlin: Springer Berlin Heidelberg, pp157-173. DOI: 10.1007/978-3-642-02630-0_9

Forcadell FJ, Aracil E. 2017. European Banks' Reputation for Corporate Social Responsibility. *Corporate Social Responsibility and Environmental Management* **24**: 1-14. DOI: 10.1002/csr.1402

Global Reporting Initiative, (2013). G4 Sustainability Reporting Guidelines [pdf] Available at: https://www.globalreporting.org/information/g4/Pages/default.aspx [Accessed 30 Apr. 2018]

Global Reporting Initiative. 2016. Sustainability Discosure Database [online] Available at: http://database.globalreporting.org/ [Accessed 30 Apr. 2018].

Global Reporting Initiative, United Nations Global Compact, World Business Council for Sustainable Development. 2015. SDG Compass; Linking the SDGs and GRI. [online] Available at: https://www.globalreporting.org/resourcelibrary/SDG_GRI_G4_LInkage. pdf [Accessed 30 Apr. 2018]

Global Reporting Initiative, United Nations Global Compact, World Business Council for Sustainable Development. 2017. *SDG Compass; Linking the SDGs and GRI.* [online] Available at: https://www.globalreporting.org/standards/resource-download-center/sdg-compass-annex-linking-the-sdgs-and-gri-standards/ [Accessed 30 Apr. 2018]

Global Reporting Initiative, United Nations Global Compact, World Business Council for Sustainable Development. 2017. SDG Compass; Inventory of Business Indicators. [online] Available at: https://sdgcompass.org/business-indicators/ [Accessed 30 Apr. 2018]

Kumar S, Kumar N, Vivekadhish S. 2016. Millennium Development Goals (MDGs) to Sustainable Development Goals (SDGs): Addressing Unfinished Agenda and Strengthening Sustainable Development and Partnership. *Indian Journal of Community Medicine* **41**(1): 1–4. DOI: 10.4103/0970-0218.170955

Morhardt JE, Baird S, Freeman K. 2002. Scoring corporate environmental and sustain-ability reportsusing GRI2000, ISO14031 and other criteria. *Corporate Social Responsibility and Environmental Management* **9**:215–233. DOI: 10.1002/csr.26

PricewaterhouseCoopers. 2017. *SDG Reporting Challenge 2017 Exploring business communication on the global goals*. Available at: https://www.pwc.com/gx/en/sustainability/SDG/pwc-sdg-reporting-challenge-2017-final.pdf [Accessed 30 Apr. 2018]

Raut R, Cheikhrouhou N, Kharat M. 2017. Sustainability in The Banking Industry: A Strategic Multi- Criterion Analysis. Business Strategy and the Environment **26**(4): 550-568. DOI: 10.1002/bse.1946

Sadowski M, Whitaker K, Buckingham F. 2010. Rate the Raters: Phase Two Taking Inventory of the Ratings Universe. [Online] *SustainAbility*, London, UK. Available at: http://sustainability.com/our-work/reports/rate-the-raters-phase-two/ [Accessed 30 Apr. 2018]

*S*hen CH, Wu MW, Chen TH, Fang H. 2016. To engage or not to engage in corporate social responsibility: Empirical evidence from global banking sector. *Economic Modelling* **55**: 207–225. DOI: 10.1016/j.econmod.2016.02.007

Singh GG, Cisneros-Montemayor AM, Swartz W, Cheunga W, Guy JA, Kenny T, McOwen CJ, Asch R, Geffert JL, Wabnitz CCC, Sumaila R, Hanichj Q, Otak Y. 2017. A rapid assessment of co-benefits and trade-offs among Sustainable Development Goals. *Marin Policy*. DOI: 10.1016/j.marpol.2017.05.030

Skouloudis A, Evangelins K., Kourmousis F. 2009. Development of an evaluation methodology for triple bottom line reports using international standards on reporting. *Environmental Management* **44**: 298–311. DOI: 10.1007/s00267-009-9305-9

Skouloudis A, Evangelinos K, Kourmousis F. 2010. Assessing non-financial reports according to the Global Reporting Initiative guidelines: evidence from Greece. *Journal of Cleaner Production* **18** (5): 426-438. DOI: 10.1016/j.jclepro.2009.11.015

Skouloudis A, Evangelinos K, Moraitis S. 2012. Accountability and stakeholder engagement in the airport industry: An assessment of airports' CSR reports. *Journal of Air Transport Management* **18**(1): 16-20. DOI: 10.1016/j.jairtraman.2011.06.001

United Nations. 2014. World Investment Report 2014: Investing in the SDGs - An Action Plan. United Nations conference on trade and development. [online] New York and Geneva. *United Nations Publication*. Available at: *unctad.org/en/PublicationsLibrary/wir2014_en.pdf* [Accessed 30 Apr. 2018].

United Nations. 2015a. 'We Are the First Generation that Can End Poverty, the Last that Can End Climate Change', Secretary-General Stresses at University Ceremony. [online] Available at: https://www.un.org/press/en/2015/sgsm16800.doc.htm [Accessed 30 Apr. 2018].

United Nations. 2015b. Transforming our world: the 2030 Agenda for Sustainable Development, [online]. Available at: http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E [Accessed 30 Apr. 2018].

United Nations Global Compact. 2017. 2017 United Nations Global Compact Progress Report: Business Solutions to Sustainable Development. [online] Available at: https://www.unglobalcompact.org/library/5431 [Accessed 30 Apr. 2018].

United Nations Global Compact and KPMG International (2015). SDG Industry Matrix; Financial Services. [online] Available at: https://www.unglobalcompact.org/docs/issues_doc/development/SDGMatrix_FinancialSvcs.pdf . [Accessed 30 Apr. 2018]

Weber O, Diaz M, Schwegler R. 2014. Corporate Social Responsibility of the Financial Sector- Strengths, Weakness and Impact on Sustainable Development. *Sustainable Development* **22** (5): 321-335.

World Business Council for Sustainable Development. 2002. Sustainable Development Reporting: Striking the Balance. [online] Available at: http://wbcsdservers.org/wbcsdpublications/cd_files/datas/financial_capital/reporting_investment/pdf/SustainableDevReporting-Striking-the-balance.pdf [Accessed 30 Apr. 2018].

Wu MW, Shen CH. 2013. Corporate social responsibility in the banking industry: Motives and financial performance. *Journal of Banking & Finance* **37**(9): 3529-3547. DOI: 10.1016/j.jbankfin.2013.04.023

Yongvanich K, Guthrie J. 2006. An extended performance reporting framework for social and environmental accounting. *Journal of Business Strategy and the Environment* **15**(5): 309–321. DOI: 10.1002/bse.541

APPENDICES

Appendix 1: Linking the SDGs and GRI†
Usage of GRI G4 and GRI G4 Financial Services Sector Disclosure‡

SDG	Business Theme	GRI Indicators
1. End poverty in all its forms everywhere	Access to financial services	FS6, FS7, FS13, FS14, former FS16
	Access to land	G4-SO2
	Availability of products and services for those on low incomes	G4-EC8
	Earnings, wages and benefits	G4-EC5
	Economic development in areas of high poverty	G4-EC8
	Economic inclusion	G4-DMA-b Guidance for Procurement Practices
2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture	Access to land	G4-SO2
	Changing the productivity of organizations, sectors, or the whole economy	G4-EC8
	Indigenous rights	G4-HR8
	Infrastructure investments	G4-EC1, G4-EC7
3. Ensure healthy lives and promote well-being for all at all ages	Access to medicines	G4-EC8
	Air quality	G4-EN15, G4-EN16, G4-EN17, G4-EN20, G4-EN21
	Occupational health and safety	G4-LA6, G4-LA7
	Spills	G4-EN2
	Waste	G4-EN23, G4-EN25
4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	Education for sustainable development	G4-43
	Employee training and education	G4-LA9
5. Achieve gender equality and empower all women and girl	Economic inclusion	G4-DMA-b Guidance for Procurement Practices
	Equal remuneration for women and men	G4-EC5, G4-LA13
	Gender equality	G4-LA1, G4-LA9, G4-LA11, G4-LA12
	Infrastructure investments	G4-EC1, G4-EC7
	Non-discrimination	G4-HR3
	Parental leave	G4-LA3
	Women in leadership	G4-38, G4-40, G4-LA12
	Workplace violence and harassment	G4-LA14, G4-LA15

SDG	Business Theme	GRI Indicators
6. Ensure availability and sustainable management of water and sanitation for all	Spills	G4-EN24
	Sustainable water withdrawals	G4-EN8, G4-EN9, G4-EN27
	Waste	G4-EN23
	Water efficiency	G4-EN10
	Water quality	G4-EN22
	Water recycling and reuse	G4-EN10
	Water-related ecosystems and biodiversity	G4-EN11, G4-EN12, G4-EN13, G4-EN14, G4-EN22, G4-EN24, G4-EN26
7. Ensure access to affordable, reliable, sustainable and modern energy for all	Energy efficiency	G4-EN3, G4-EN4, G4-EN5, G4-EN6, G4-EN7
	Environmental investments	G4-EN31
	Infrastructure investments	G4-EC1, G4-EC7
	Renewable energy	G4-EN3, G4-EN4
8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Abolition of child labor	G4-HR5
	Access to financial services	FS6, FS7, FS13, FS14, former FS16
	Changing the productivity of organizations, sectors, or the whole economy	G4-EC8
	Diversity and equal opportunity	G4-LA12
	Earnings, wages and benefits	G4-EC5, G4-LA2
	Economic inclusion	G4-DMA-b Guidance for Procurement Practices
	Economic performance	G4-EC1
	Elimination of forced or compulsory labor	G4-HR6
	Employee training and education	G4-LA9, G4-LA10, G4-LA11
	Employment	G4-10, G4-EC6, G4-LA1
	Energy efficiency	G4-EN3, G4-EN4, G4-EN5, G4-EN6, G4-EN7
	Equal remuneration for women and men	G4-LA13
	Freedom of association and collective bargaining	G4-11, G4-HR4
	Indirect impact on job creation	G4-EC8
	Jobs supported in the supply chain	G4-EC8
	Labor practices in the supply chain	G4-LA14 and G4-LA15
	Labor/management relations	G4-LA4
	Materials efficiency	G4-EN1, G4-EN2
	Non-discrimination	G4-HR3
	Occupational health and safety	G4-LA5, G4-LA6, G4-LA7, G4-LA8
	Parental leave	G4-LA3
	Resource efficiency of products and services	G4-EN27, G4-EN28
	Water efficiency	G4-EN10
	Youth employment	G4-LA1

SDG	Business Theme	GRI Indicators
9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	Access to financial services	FS6, FS7
	Environmental investments	G4-EN31
	Infrastructure investments	G4-EC1, G4-EC7
	Research and development	G4-EC1, G4-EN31
10. Reduce inequality within and among countries	Access to financial services	FS7, FS13, FS14, former FS16
	Economic development in areas of high poverty	G4-EC8
	Equal remuneration for women and men	G4-LA13
	Foreign direct investment	G4-EC8
	Responsible finance	FS10, FS11, former FS1, former FS2, former FS3, former FS4, former FS5, former FS9, former FS15
11. Make cities and human settlements inclusive, safe, resilient and sustainable	Access to affordable housing	FS7
	Infrastructure investments	G4-EC7
	Sustainable transportation	G4-EN30
12. Ensure sustainable consumption and production patterns	Air quality	G4-EN15, G4-EN16, G4-EN17, G4-EN20, G4-EN21
	Energy efficiency	G4-EN3, G4-EN4, G4-EN5, G4-EN6, G4-EN7
	Environmental investments	G4-EN31
	Materials efficiency/recycling	G4-EN1, G4-EN2
	Procurement practices	G4-EC9
	Product and service information and labeling	G4-PR3
	Resource efficiency of products and services	G4-EN27, G4-EN28
	Spills	G4-EN24
	Transport	G4-EN30
	Waste	G4-EN23, G4-EN25, G4-EN27
	Water efficiency	G4-EN10
	Water quality	G4-EN22
13. Take urgent action to combat climate change and its impacts*	Energy efficiency	G4-EN3, G4-EN4, G4-EN5, G4-EN6, G4-EN7
	Environmental investments	G4-EN31
	GHG emissions	G4-EN15, G4-EN16, G4-EN17, G4-EN18, G4-EN19, G4-EN27, G4-EN30
	Risks and opportunities due to climate change	G4-EC2

SDG	Business Theme	GRI Indicators
14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development	Environmental investments	G4-EN31
	Marine biodiversity	G4-EN11, G4-EN12, G4-EN13, G4-EN14, G4-EN26
	Ocean acidification	G4-EN15, G4-EN16, G4-EN17, G4-EN18, G4-EN19, G4-EN21, G4-EN27
	Spills	G4-EN24
	Water discharge to oceans	G4-EN22
15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	Environmental investments	G4-EN31
	Forest degradation	G4-EN15, G4-EN16, G4-EN17, G4-EN18, G4-EN19, G4-EN21, G4-EN27
	Natural habitat degradation	G4-EN11, G4-EN12, G4-EN13, G4-EN14, G4-EN26
	Spills	G4-EN24
	Terrestrial and inland freshwater ecosystems	G4-EN11, G4-EN12, G4-EN13, G4-EN14, G4-EN26
16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	Abolition of child labor	G4-HR5
	Anti-corruption	G4-SO3, G4-SO4, G4-SO5, G4-SO6
	Compliance with laws and regulations	G4-EN29, G4-SO7, G4-SO8, G4-PR2, G4-PR4, G4-PR7, G4-PR8, G4-PR9
	Effective, accountable and transparent governance	G4-39, G4-41
	Ethical and lawful behavior	G4-56, G4-57, G4-58
	Grievance mechanisms	G4-EN34, G4-LA16, G4-HR12, G4-SO11
	Inclusive decision making	G4-37, G4-38, G4-40, G4-45, G4-53
	Non-discrimination	G4-HR3
	Protection of privacy	G4-PR8
	Security	G4-HR7
	Workplace violence and harassment	G4-LA14, G4-LA15
17. Strengthen the means of implementation and revitalize the global partnership for sustainable development	Environmental investments	G4-EN31
	Foreign direct investment	G4-EC8

† Based on SDG Compass;Linking the SDGs and GRI (GRI,UN Global Compact, WBCSD, 2015).

‡ Indicators from the GRI G4 Financial Sector Disclosures are highlighted in blue.

Appendix 2: Top 23 more frequent GRI indicators

Rank	Top 23		
	GRI indicators†	Frequency‡	SDGs correspondence
1	G4-EC8	10	1, 2, 3, 8, 10, 17
2	G4-EN31	8	7, 9, 12, 13, 14, 15, 17
3	G4-EN27	7	6, 8, 12, 13, 14, 15
4	G4-EC1	6	2, 5, 7, 8, 9
5	G4-EN16	5	3, 12, 13, 14, 15
6	FS7	5	1, 8, 9, 10, 11
7	G4-EN3	5	7, 8, 12, 13
8	G4-EN15	5	3, 12, 13, 14, 15
9	G4-EN17	5	3, 12, 13, 14, 15
10	G4-EN4	5	7, 8, 12, 13
11	G4-EC7	5	2, 5, 7, 9, 11
12	G4-EN24	5	6, 12, 14, 15
13	G4-EN5	4	7, 8, 12, 13
14	G4-EN6	4	7, 8, 12, 13
15	G4-EN21	4	3, 12, 14, 15
16	G4-EN7	4	7, 8, 12, 13
17	G4-EN10	4	6, 8, 12
18	G4-EN11	4	6, 14, 15
19	G4-EN12	4	6, 14, 15
20	G4-EN13	4	6, 14, 15
21	G4-EN14	4	6, 14, 15
22	G4-EN22	4	6, 12, 14
23	G4-EN26	4	6, 14, 15

†Indicators from the GRI G4 Financial Sector Disclosures are highlighted in blue.
‡ Number of appearance in methodology applied (Appendix 1)