

Study Design and Protocols
GHG Emissions Ranking Project
Lynn M. LoPucki

Research question: Are the data reported by S&P 500 companies sufficient to support rankings? If not, what changes could make them sufficient?

Finding: The data are currently sufficient but would not remain so if the companies acted strategically to improve their rankings.

Universe: S&P 500 reports covering the year 2021.

Unit of analysis: company. There should be one record for each of the 500 companies.

Definition of “2021 data.” 2021 data are data for calendar year 2021 or the fiscal year that have the greatest overlap with the calendar year 2021. Data for a fiscal year ending at the end of June 2022 is 2021 data. Data for a fiscal year ending at the end of June 2021 is 2020 data. “June” includes all June dates from June 15 and July dates through July 15.

Report Collection.

1. Identify the CSR report(s) covering the year 2021 and determine whether each contains GHG data or an assurance certificate.

Highlight the information on which you base those determinations and add comments that identify the information by field name or similar phrase.

2. Save the 2021 report(s) with the file name: [Company Name] [CSR report year] [[GHG [GHG year] or No GHG] [“CSR Report”, “CSR Report-Certif”, “Certificate”, “CDP Questionnaire,” or [custom name]]]

3. Move reports covering years before 2021 to a separate folder. If the file name contains 2020 or earlier years, there is no need to determine what year the report actually covers.

Choose Data Source

4. If we have an assurance certificate, highlight and comment the Scope 1 and Scope 2 totals.
5. If we have a second document that contains GHG information, highlight and comment the Scope 1 and Scope 2 totals.
6. If the Scope 1 and Scope 2 totals match in the two sources, enter the GHG information from the certificate. If they don’t match, broaden the search. Add documents if necessary.

Data Entry: Enter the data in accord with the following protocols:

Second 100	Field name	CHK field
Yes	10k Down. Did we download the 10k?	
Yes	Assure2021. Did the company obtain assurances with regard to its 2021 GHG emission data? “yes” or “no” or	

	“not yet.” “Not yet” indicates that the company either obtained assurances of 2020 GHG data or said it is seeking 2021 GHG assurances. “Yes” does not require that we have a copy of the certificate.	
Yes	AssureCert2021. Do we have an assurance certificate that covers the year 2021? It may be stand-alone or part of the CSR Report. “yes” or “no”.	
Yes	AssureType. Level of third-party assurance: "reasonable," "limited," "high," "moderate," "type unknown," "no 2021 GHG data" (if DateGhgEnd and Scope1+2Total are blank), "no assurances."	
Yes	Biogenic Reported. Did the company report any category of biogenic emissions? yes or no.	
Yes	BoundaryFirm. Boundary of the firm used in calculating emissions. “Equity Share,” “Financial Control,” “Operational Control,” “Mixed,” “other boundary,” “no boundary data,” or “no report.” If a company begins a new boundary approach and includes the old approach for reference, use the new one.	
Yes	CdpQuest2021. Do we have a copy of the CDP Climate Change Questionnaire that covers the year 2021? “yes” if we do, otherwise blank. This questionnaire will probably be labeled “2022.”	
Done	CIK. The SEC’s company identifier. From Cap IQ.	
Yes	Comments. Use for necessary information that does not fit elsewhere.	
Done	Company Name. Name from Cap IQ.	
Yes	DateEnd10k. Year-end date of the 2021 10-K.	CHK Release Date 10-k
Yes	DateEndGhg. Last date covered by the 2021 GHG data	CHK Release Date GHG
No	DateGhgCertificate Date the certificate of assurance covering 2021 GHG emissions was signed.	CHK Release Date GHG
Yes	DateGhgRelease. Date the GhgReport was released. If the data were initially made publicly accessible in a report that was included in a press release, the release	CHK Release Date GHG

	date is the date of the press release. If a signed and dated assurance certificate containing GHG data is attached to a CsrReport and has a date earlier than the CsrReport, the certificate date is the DateGhgRelease , not the CsrReport date.	
Yes, calculate	DaysGhgToRelease. Days from DateEndGHG to DateGhgReleased	CHK Release Date GHG
Yes, calculate	Exclusions. Exclusions that are not de minimis, including geographical exclusions. Did the company make an unlimited exclusion of emissions from its Scope 1+2Total? yes/no. Calculate from ExclusionsText.	
Yes	ExclusionsText. If an issue exists as to whether the company made Exclusions , quote or describe the exclusion language. For companies reporting covered country names only, download the 10-K and determine whether the countries covered include all operations.	CHK ExcludeGeograph
Yes, calculate	GhgCalendarYear. Is the 2021 GHG data for the year ending December 31, 2021? yes/no. “December 29 is ‘yes.’” If the company did not disclose 2021 GHG information, enter “no 2021 GHG data.”	CHK GHG Calendar Year
	GhgPermaLink. The hyperlink to the GhgReport.	
	GhgReportName. The name of the GhgReport. The GhgReport is the first document released that shows Ghg emissions, even if they are undifferentiated.	
Yes	GhgReportYear. Calculated from DateEndGhg. The ReportYear should be “2021” if DateEndGhg is no later than June 2022 and no earlier than June 2021. “June” includes all June dates after June 15 and July dates before July 15. A report that ends in June is a report for the previous year.	CHK GHG Calendar Year
	GhgReportUrl. URL of the GHG Report. Used to create GhgPermaLink .	
Yes	GwpAssessment. The assessment (ratios) the company used to convert gases into CO ₂ equivalents.	CHK GWP
Drop	GwpSource. The document from which we obtained the assessment in GwpAssessment.	CHK GWP

Yes	Logo. Have we downloaded the company's logo? "yes" or blank. Logo is the symbol that serves as the company's logo. Search on [Company Name] logo. The Company Name will appear beside the logo on the website, so do not choose a logo for its inclusion of the Company Name. Choose a logo with a white background if one is available. Choose a logo with resolution above 400 by 400 if one is available. Right click on the logo and save it to the folder "OneDrive - UCLA School of Law\CSR Projects\GHG Emissions Ranking Project\Logos" with a file name that begins with the Company Name and contains your initials. Prefer svg files, then png files.	
Yes, calculate	Rank. The rank order of the companies, from lowest to highest, based on Scope1+2Total emissions. Rank nonreporting companies (Scope1+2Total is blank) tied for last.	CHK Ranking
Yes, calculate	RankIndustry. Company's within-industry rank (SasbIndustry), from lowest to highest, based on Scope1+2/Revenues . Nonreporting companies (Scope1+2Total is blank) are ranked as tied for last.	CHK Ranking
Yes, calculate	RankRevenues. Rank by Scope1+2Total/Revenues.	
Done	Revenues. Annual revenues from Cap IQ downloaded in June 2022.	
Yes	SasbIndustry. The company's 2021 self-classification by SASB industry. From the SASB Industry Tool. https://www.sasb.org/find-your-industry/	CHK Ranking
Yes, calculate	SasbIndustryShort. SasbIndustry shortened to fit on the website. [number of characters].	
Yes, calculate	Scope1+2Reported. Did the company report its 2021Scope 1 and Scope 2 emissions, whether separate for Scope 1 and Scope 2, or undifferentiated? "yes," "no," "yes, exclusions," If the company reports foreign GHG emissions, but no US GHG emissions, enter "no".	
Yes, calculate	Scope1+2Total. Total of Scope1Emit , Scope2Total , and Scope1+2Undiff .	

Yes	Scope1+2Undiff. Scope 1+2 2021 GHG total emissions as reported when the allocation method is unspecified. In equivalent metric tons.	
Yes, calculate	Scope1+2/Revenues. Scope1+2Total divided by Revenues (in millions of dollars).	
Yes, calculate	Scope1Emit. Scope 1 2021 GHG total emissions in equivalent metric tons.	
Yes	Scope2EmitLocation. Scope 2 2021 GHG total emissions reported as location-based. In equivalent metric tons.	
Yes	Scope2EmitMarket. Scope 2 2021 GHG total emissions reported as market-based. In equivalent metric tons.	
Yes	Scope2EmitUndifferentiated. Scope 2 2021 GHG total emissions as reported when the allocation method is unspecified. In equivalent metric tons.	
Yes, calculate	Scope2Total. Scope 2 2021 GHG total emissions in equivalent metric tons. Scope2EmitMarket if available, else Scope2EmitLocation , else Scope2EmitUndifferentiated	
Yes	Scope3Reported. Did the company report any numbers for 2021 Scope 3 emissions? yes/no.	
Drop	ScopeDataSource. The place from which we obtained the Scope 1 and Scope 2 numbers. [Field to be redesigned.]	
Yes, calculate	TransparencyScore. A number from 0 to 10. The company receives one point for each of the following: (1) Scope 1 number reported, (2) Scope 2 number reported, (3) Scope 3 = “yes”, (4) Biogenic = “yes”, (5) Firm boundary is “equity share,” “financial control,” or “operational control,” (6) GWP assessment = “yes”, (7) Calendar year = “yes”, (8) GHG report = “yes”, (9) Exclusions = none, (10) Assurances is “high,” “moderate,” “limited,” or “reasonable.”	
Yes, calculate	TrAssurances. If AssuranceType = “high,” “moderate,” “limited,” or “reasonable,” enter “1”. Calculated. Used to calculate TransparencyScore .	

Yes, calculate	TrBiogenic. If BiogenicReported = “yes,” enter “1”. Calculated. Used to calculate TransparencyScore .	
Yes, calculate	TrCalendarYear. If CalendarYearAll = “yes,” enter “1”. Calculated. Used to calculate TransparencyScore .	
Yes, calculate	TrExclusions. If Exclusions = “no,” enter “1”. Calculated. Used to calculate TransparencyScore .	
Yes, calculate	TrFirmBoundary. If BoundaryFirm = “equity share,” “financial control,” or “operational control,” enter “1”. Calculated. Used to calculate TransparencyScore .	
Yes, calculate	TrGhgReport. If GhgReport = “yes,” enter “1”. Calculated. Used to calculate TransparencyScore .	
Yes, calculate	TrGwpAssessment. If GwpAssessment ≠ “not reported,” enter “1”. Calculated. Used to calculate TransparencyScore .	
Yes, calculate	TrScope1+Scope2. If Scope1+Scope2 = “yes*,” enter “2”. Calculated. Used to calculate TransparencyScore .	
Yes, calculate	TrScope3. If Scope3Reported = “yes,” enter “1”. Calculated. Used to calculate TransparencyScore .	