

CASE STUDY

Supporting Climate Risk Assessment at a Bank

THE CLIENT:

A large international bank headquartered in the U.K.

USERS:

The climate risk team

Climate change has become an important strategic issue for banks around the world. As sustainable finance continues to gain attention, there is growing concern about lending money to companies that are failing to take steps to transition to a low-carbon economy. There is also concern about lending money to companies that are vulnerable to the physical impacts of climate change, given their exposure to more frequent and severe weather conditions. It has become essential for banks to understand and manage climate risks in their businesses to help limit global warming to well below 2 degrees Celsius, as per the Paris Agreement.

This large international bank has been a leader in assessing climate risk, but wanted to further enhance its capabilities. This would enable the climate risk team to provide more transparent reporting for the Task Force on Climate-related Financial Disclosures (TCFD), plus be well positioned to meet proposed regulations announced by the Prudential Regulation Authority requiring the use of scenario analysis to evaluate the impact of climate change on the bank's risk profile.



Pain Points

The climate risk team had developed a transition model for the bank's loan portfolio to evaluate the impact of policies, such as potential carbon taxes, that encourage the move to a greener economy. Team members needed extensive environmental data to run the model, but had to spend substantial time gathering this from multiple sources and putting it in a standardized format. In addition, they were finding it difficult to understand which assets around the world were owned by their loan customers to assess possible physical risks from climate change. As such, they were looking for a firm that could provide:

- An expansive dataset to evaluate the carbon intensity of their loan portfolio.
- The ability to estimate carbon intensity for loan customers that did not report this information.
- Asset-level physical risk data.
- A methodology to move from an evaluation of asset-level data to a company climate risk score.
- Easy access to data via a desktop solution, plus an efficient data feed option to an internal repository.

The team began discussion with S&P Global Market Intelligence ("Market Intelligence") to learn more about the firm's offering.

The bank needed to better understand the potential climate risks it faced in its loan portfolio. This required evaluating the carbon intensity of thousands of loan customers to meet reporting and regulatory requirements, and determine if the bank was on track to meet its reduction targets for financed emissions.



The Solution

Market Intelligence discussed a wide range of capabilities that would enable the climate risk team to:



Evaluate carbon intensity of the loan book

Carbon Emissions Data contains information on over 16,000 companies,¹ covering Scope 1, 2, and 3 with metrics on quantities and intensities of carbon-equivalent emissions (tCO₂e, tCO₂e/US\$ revenues) and their estimated damage cost equivalents (US\$), along with impact ratios. As with all environmental data, it contains sector revenue data that gives revenues and percentages of company revenues derived from each of 464 business sectors. Data goes back to 2005, where available.



Estimate carbon data when not available

S&P Global Trucost Environmentally-Extended Input-Output (EEIO) Model brings together a vast database of industry-specific environmental impact data with quantitative macroeconomic data on the flow of goods and services between different sectors of the economy. The EEIO model lets users estimate environmental impacts for a company's own operations and across their entire global supply chain, given the availability of company revenue details by industry sector.

¹ All data as of February 2021.



Delve into asset-level details

S&P Global Trucost Climate Change Physical Risk Analytics offers an asset-level approach to the assessment of physical risk at the company and portfolio level. This include data that provides detailed information to help understand the exposure of company-owned facilities and capital assets to seven climate-related physical impacts (i.e., flood, water stress, heatwave, cold wave, hurricanes, sea level rise, and wildfire) under different climate change scenarios. Scores at an asset basis can then be aggregated to a company level.



Understand sovereign bond carbon exposure

Trucost Sovereign Carbon Exposure Database provides an understanding of carbon exposure linked to investments in sovereign bonds, and enables users to compare performance against a benchmark and report in line with voluntary and mandatory reporting requirements. The dataset covers the territorial and import-export greenhouse gas (GHG) emissions of 170 countries across all GHG Protocol gases, plus country-level socio-economic and energy data.



Take a deep look at metals and mining assets

Metals & Mining Database offers the industry's only complete source of global exploration budget details, in-depth reserves replacement analysis, and proprietary reports, as well as profiles on over 36,000 mining properties and coverage of 4,500 mining companies. Key types of data available include: Asset/property data, commodity and country-focused data, research and analysis, mine economics models, news, company-level data, and company documents.



Better understand energy assets

The Energy Offering delivers a range of capabilities from company financials and commodity pricing to detailed statistics, summaries, and project tracking. Data covers industry subsectors, such as power, natural gas, renewables, and coal. News provides essential sector-

specific regulatory and financial updates. Key types of data available include: News, market details, corporate finance data, supply and demand analytics, power plant data, third-party commodity prices, power forecasts, and more.

**Access data as needed**

A desktop solution for quick access, plus Xpressfeed™ that automates the download and management of Market Intelligence data and enables delivery as needed in a ready-to-query relational database to link to internal applications.

**Easily manage data integration**

Cross Reference Services enables the linking of over 63 million instruments to a range of identifiers, such as ISINs and CUSIPs, 28 million entities to the S&P Capital IQ Company ID, and industry sectors to GICS and other industry classifications schemes.²

² ISIN=International Securities Identification Number; GICS=Global Industry Classification Standard. Data as of September 2020.



Key Benefits

The climate risk team thought that Market Intelligence could provide the data, insights, and delivery options needed to take the bank's risk analysis to a new level. In particular, the team saw value in having:

- **The ability to save time on data gathering activities** with access to one source of comprehensive and standardized environmental information.
- **A more complete environmental data set** using a well-tested methodology to estimate carbon intensity for non-reporting firms.
- **A snapshot of current financed emissions** to set reduction targets and evaluate progress going forward.
- **A better handle on potential physical risks** with new insights to connect loan customers to their assets around the world.
- **An opportunity to further investigate assets owned by loan customers** with deep sector information on metals and mining and energy.
- **Increased credibility with loan customers** by evaluating their assets without requesting additional information.
- **The option to quickly review data** on a robust desktop platform.
- **Improved workflows** with easy integration of data with internal applications using a powerful data feed solution and cross-referencing capabilities.

[Click here to explore some of the datasets and solutions used in this case study.](#)

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