

Business Involvement Screening Research

Methodology

MSCI ESG Research

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Business Involvement Screening Research Overview

Objective

MSCI Business Involvement Screening Research (BISR) provides data on the extent of companies' involvement in products, services, processes or operations that may cause, contribute to, or be associated with adverse social or environmental impacts or may conflict with certain investors' values. The research is based on disclosed activities, disclosed revenue and estimates of revenue that are extrapolated from company disclosures.

The BISR screening evaluations ("BISR screens") are designed to only flag companies with identified involvement in covered business activities.

1. Methodology

1.1. Evaluation types

BISR evaluations are structured hierarchically within business activities with two standard categories: *Involvement* and *Revenue Involvement*.

Involvement evaluations for companies signal evidence of:

- Involvement in screened business activities; and
- The nature of involvement (e.g., producer, retailer, components supplier).

Revenue involvement evaluations provide reported or estimated revenue attributed to business activities.

The availability of *Involvement* and *Revenue Involvement* evaluations may vary depending on the business activity and/or the nature of involvement.

Involvement evaluations are not dependent on companies generating revenues from the screened business activities. In certain cases, it is possible that the outcome of an Involvement evaluation indicates involvement, whereas the *Revenue Involvement* evaluation output is zero (“0”) or null values.

1.1.1. Involvement evaluation types

- **Involved Status:** This type of evaluation indicates whether the company was found to be:
 - Involved in one or more of the screened business activities; or
 - Not involved in any of these.
- **Any Tie¹:** These evaluations are aggregations of underlying Involvement Status evaluations. Outputs are presented as Boolean data points.
- **Nature of involvement:** These evaluations are used to identify involvement in screened business activities within certain business functions.²
 - **Producer:** Companies that create, fabricate, produce or manufacture goods.
 - **Operator:** Companies that perform or manage the business operations or activities.
 - **Retailer:** Companies that directly sell products and services to end users. The sale process is typically business-to-consumer (B2C).
 - **Distributor:** Companies involved in the wholesale of products to retailers and other distributors. Distribution activities are typically conducted business-to-business (B2B).
 - **Supplier:** Companies that provide raw materials, inputs, components and equipment to another company to produce goods and services.
 - **Support services:** Collective term to encompass auxiliary services that can support, enhance or supplement the operations of companies.

¹ The evaluation type “Any Tie” is an aggregation of the relevant underlying screens, not an exhaustive evaluation of all types of possible involvement.. Information regarding underlying involvement screens’ scopes, definitions, inclusions and exclusions are provided in their respective sections of this document.

² This may include positive screens.

- **Licensor:** Companies that license a brand name to products or services.
- **Additional Indicators:** These include data points which provide further context on involvement in an activity, such as certain accreditations or the existence of certain policies relating to the involvement in an activity.
- **Ownership:** These evaluations are used to identify corporate ownership ties to companies involved in screened activities. There are two types of evaluations:
 - **Ownership By:** Indicates whether the company is a direct majority-owned (at least 50%) subsidiary of a company involved in the screened involvement activity³.
 - **Ownership Of:** Ownership of a significant stake in a company involved in the business activities covered by the evaluation as follows: For financial institutions and fund providers,⁴ a stake of 50% or more. For non-financial institutions or fund providers, 20% - 49.99%.

1.1.2. Revenue involvement evaluation types

- **Maximum Total Revenue (USD):** The company’s reported revenue (or, where not disclosed, maximum estimated revenue) from the screened business activity in its most recently completed fiscal year.
- **Maximum Percentage of Revenue:** The company’s reported revenue (or, where not disclosed, maximum estimated revenue) from the screened business activity as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, rounded to two decimal places⁵, where a value of 1.00 represents 1%.

1.1.3. Revenue Involvement methodology

Revenue Involvement figures are based on the most recently reported data and are provided for companies identified as being involved in the activities covered by the evaluation. Fiscal years may not be aligned for global companies within the same industry.

Revenue Involvement figures may use one of several approaches, depending on the availability of information, listed below **in order of priority**:

1. Where the activity’s **gross revenue** is available:
 - **Gross revenue:** total sales or income earned by the company for the activity, before deducting any expenses.
2. Where the activity’s **net income** is available:
 - **Net income:** total amount of profit the company has earned after deducting expenses from its gross revenue for the activity.

³ Companies that are indirect majority-owned subsidiaries are out of scope of this definition. An indirect subsidiary is an entity with another entity between it and the involved company.

⁴ Financial institutions and fund providers include, but are not limited to: Asset managers, banks, investment brokers, investment managers, mutual funds and pension funds. Investment holding companies are not considered in this definition. An investment holding company is a company which holds an interest in one or more companies, and which has no operations itself and/or its board does not typically direct the operations of its holdings.

⁵ Here a zero (“0”) value may indicate that due to rounding, a percentage figure of <0.005% has been rounded down to 0.

- If the net income figure is zero or a negative value, then a value of zero (“0”) is attributed.
- 3. Where the company provides **activity revenue percentages** and/or revenue percentage ranges for the activity:
 - Revenue (USD) figures are estimated based on the provided percentages.
 - When disclosures indicate a maximum revenue percentage for a business activity, we will use the disclosed maximum revenue percentage as the upper range limit.
 - The same will apply to a lower range limit, if the company discloses a minimum revenue value or percentage for a business activity.
- 4. We use **estimates** where gross revenue and/or net income for the activity is not disclosed or a disclosure is not aligned with an activity definition. The revenue estimation is as follows:
 - **Estimated values presented as ranges:** The Maximum Percentage of Revenue represents the estimated highest potential revenue figure for that business activity. BISR screening evaluations typically use the following revenue ranges:

0.01% to 0.99%	1.00% to 4.99%	5.00% to 9.99%	10.00% to 14.99%	15.00% to 19.99%	20.00% to 24.99%	25.00% to 49.99%	50.00% to 100.00%
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- **Calculation of ranges:** The total revenue data points aggregate the underlying revenue data points. During the summation, disclosed revenue percentages are used as reported, though when revenue is estimated, the maximum revenue for the range is used.
 - **A Revenue is Estimated Key:** This type of data point indicates whether an estimation has been used in the evaluation of the business activity revenue figures and are presented as Boolean data points.⁶
- 5. Where the company is assessed as involved in an activity but neither gross revenue nor net income for the activity can be estimated (e.g. as there is no available financial statements):
 - **Zero figure:** If revenue is not disclosed and cannot be estimated, then zero (“0”) is presented for the activity revenues.

1.1.4. Revenue Estimation methodology

Disclosed financial information varies between companies and activity level revenues may be limited or unavailable for certain screened activities. In other cases, majority-owned subsidiaries may not be consolidated in published financials, but those subsidiaries may have publicly available financials which include activity revenues.

Estimates are calculated based on reported data. The most granular source of segment- or activity-based revenue is used when estimating revenue. The following methods will be used based on available disclosures, listed in order of priority:

⁶ If the output of the Revenue is Estimated data point is “True”, then the revenue information for business activity is estimated. If the output is blank, then the revenue is disclosed by the company.

1. **Estimation based on proportional unit or product mix:** When revenue is available for a business segment with details on the product mix and proportional units of products within a business segment, MSCI ESG Research estimates revenue based on the proportional unit or product mix.
2. **Estimation based on equal product split:** In the absence of proportional unit or product mix information, revenues are estimated by the equal weight of products within the disclosed segments. Proportional unit or product mix information can be used to estimate the segment revenue, when available, before using the equal product split to best reflect the activity’s revenue.

Estimates are also calculated where a majority held subsidiary is not consolidated.

1. Revenue estimation is based on a pro-forma consolidation of the non-consolidated subsidiary.

1.2. Business activities in scope

The business activities for which research is conducted are as follows:

Exhibit 1: Business activities and evaluation types

Business activities ⁷	Involvement evaluation types	Revenue evaluation types ⁸
Abortifacients	Yes	Yes
Abortion Providers	Yes	No
Adult Entertainment	Yes	Yes
Alcohol	Yes	Yes
Animal Welfare	Yes	No
Biocides	Yes	Yes
Breast Milk Substitutes	Yes	No
Cannabis	Yes	Yes
Cinemas	Yes	Yes
Civilian Firearms	Yes	Yes
Contraceptives	Yes	Yes
Conventional Finance	Yes	Yes
Dating Services	Yes	Yes
For Profit Healthcare	Yes	No
For-Profit Prisons	Yes	Yes
Fur	Yes	No
Gambling	Yes	Yes

⁷ See Appendix 1 for the definitions of each activity type.

⁸ MSCI ESG Research does not provide revenue or revenue estimates for companies that are identified by the “Ownership Of” and “Ownership By” screens. These screens are intended to identify companies with indirect involvement in a business activity, either through a parent company or subsidiary.

Business activities⁷	Involvement evaluation types	Revenue evaluation types⁸
Genetic Engineering	Yes	Yes
Hotels	Yes	Yes
Lending Practices	Yes	Yes
Military Weapons – Biological / Chemical Weapons	Yes	Yes
Military Weapons – Blinding Laser Weapons	Yes	No
Military Weapons – Cluster Munitions	Yes	No
Military Weapons – Conventional Weapons	Yes	Yes
Military Weapons – Depleted Uranium Weapons	Yes	No
Military Weapons – Incendiary Weapons	Yes	No
Military Weapons – Landmines	Yes	No
Military Weapons – Non-Detectable Fragments	Yes	No
Military Weapons – Nuclear Weapons	Yes	Yes
Music	Yes	Yes
Nuclear Power	Yes	Yes
Palm Oil	Yes	Yes
Pork	Yes	Yes
Stem Cells	Yes	No
Tobacco	Yes	Yes

An extensive list of Business Involvement Screening Research data points is provided in the BISR and Global Sanctions data catalog available on MSCI ESG Research distribution platforms.

2. Research process

2.1. Obtaining screening data

MSCI ESG Research uses preferred sources, when possible, to assess company’s involvement and revenue in screened activities. Data from preferred sources are typically used for up to three years from publication or involvement date.

MSCI ESG Research may also use supplemental sources in certain cases, including where preferred sources do not yield sufficient information for an evaluation to be made.

2.1.1. Preferred sources – public disclosures

The following public disclosures are considered as primary sources to collect company revenue and involvement data:

- **Company direct disclosure:** sustainability reports, annual reports and regulatory filings, and company websites.
- **Company indirect disclosure:** government agencies’ published data, industry and trade associations’ data, and financial data providers’ data.

2.1.2. Preferred sources – third-party vendors

For selected business activities, MSCI ESG Research uses third-party data vendors. These are noted in Appendix 1 – Business Involvement Screens.

2.1.3. Preferred sources – direct company communication

In certain cases, such as to clarify publicly disclosed information or to inquire about information from outdated sources, MSCI ESG Research may communicate directly with companies to obtain clarifying information. This information may be used in addition to publicly disclosed information.

Certain industries and screens require direct company communication to obtain information on involvement required for evaluation. Surveys are sent annually to selected companies regarding involvement in certain business activities and the responses are treated as preferred sources.

These surveys are used to obtain information not typically publicly disclosed regarding business activities to support our evaluation process.

Exhibit 2: Companies requiring direct company communication

Selected companies	Designated activities
<p>Those that are, for the designated activities:</p> <ul style="list-style-type: none"> • Flagged with involvement, • On a BISR activity watchlist, or • Have been identified during the analytical review process for further research. 	<ul style="list-style-type: none"> • Abortion Providers; and • Stem Cell Research.

2.1.4. Supplemental sources

MSCI ESG Research may also use the following sources for revenue and involvement data:

- Company material that is not provided on their official website(s);
- Sources beyond three years old that contain information of contracted involvement that specify timelines;
- Media and periodicals;
- Business directories; and
- Nongovernmental organizations (NGOs) reports and websites.

2.1.5. Minimum data availability requirements

No minimum financial and ESG data is required for a BISR evaluation to be undertaken. All companies in the coverage universe are subject to the first-stage review.

2.2. Analytical review steps

2.2.1. First-stage review

The first stage in the screening process for a business activity uses data extraction and other automated techniques to identify companies that:

- Have an industry classification within defined parameters; or
- Have a business description that includes certain keywords.

Where involvement is potentially identified: Companies process to the second stage of review.

Where involvement is not identified: Involvement Data points are set to “Not Involved – Verified”.

2.2.2. Second-stage review

In the second stage of review, MSCI ESG Research ESG data experts review the preferred sources and, if required, the supplemental sources to assess involvement.

- Where no evidence of involvement is identified the evaluation outcome is “Not Involved – Verified.”
- Where evidence of involvement is identified the evaluation outcome is “Involved,” and the respective involvement evaluation types are evaluated.
- For companies having previously been identified as involved in a business activity covered within the scope of the evaluation:
 - Where conclusive evidence is found that the company is no longer involved, the evaluation outcome is “Not Involved – Verified.” This can be confirmed with:
 - Corporate communication;
 - Information in company filings detailing the conclusion of involvement with the activity; or
 - Publicly available information on the concluded sale of involved companies.

- Where no conclusive evidence is found of either continued or discontinued involvement in the activity:
 - The evaluation outcome is “Involved” for up to three years from the date of last known involvement or, if not available, for up to three years from the source date.
 - After three years, if there is no evidence of involvement, then the evaluation outcome is “Not Involved – Verified.”

2.3. Timing of ESG data expert review

Companies are scheduled to be reviewed throughout the year.

- Constituents of the MSCI ACWI Index are typically reviewed within one quarter of their annual filings.
- The rest of the coverage universe is typically scheduled to be reviewed on a rolling basis within 12 months of the issuers’ annual filings.

In addition, ad-hoc reviews may be scheduled where we receive company or client feedback and at other times at MSCI ESG Research’s discretion.

2.4. Entity Selection & Data Mapping

ESG Evaluations, including BISR evaluations may be attributed to related companies. Companies are selected for ESG Evaluations through MSCI ESG Research’s Entity Selection process – these are known as Data Entities. Evaluations are attributed to related companies through a MSCI ESG Research’s Data Mapping process.

2.4.1. Data Entities

MSCI ESG Research defines a Data Entity as an entity subject to an ESG Evaluation. To determine which entity or entities within a group of related companies should be evaluated for a given evaluation, MSCI ESG Research conducts a review of the companies’ financing structures.

2.4.2. Evaluation boundary

Where there are multiple BISR evaluations within a group of companies, the BISR Evaluation Boundary may overlap, or a set of BISR Evaluations may be nested inside another, particularly where one of the companies is an equity issuer.

For BISR:

- The Evaluation Boundary for an equity issuer is the whole group of companies.
- The Evaluation Boundary for a bond issuer that sits within a group but is financing only a discrete part of the group (e.g. a single business line or division, specific operating company, the captive finance activities, etc.) extends only to that part of the group. Any activity involvement identified for this discrete part of the group will also be reflected in the group’s evaluation.

2.4.3. Data Mapping

Data Mapping is the process whereby ESG evaluations for a company (a Data Entity) are attributed to related companies. ESG evaluations are mapped based on observed parent-subsidary relationships, subject to certain company and data point requirements.

- Certain companies (such as those classified as financing companies) included in the coverage universe may be covered by data mapping from the relevant Data Entity.
- Bond issuers outside the BISR coverage universe may also have their evaluations mapped from parent entities that are included in the BISR coverage universe.

Note that BISR evaluations are not be mapped to:

- Equity issuers; or
- Companies that have already been assessed by MSCI ESG Research.

MSCI ESG Research does not recommend the use of Data Mapping for the following evaluation types:

- Ownership Of; and
- Ownership By.

2.5. Quality and oversight processes

The following quality assurance and oversight processes are observed:

- **Quality review process:** Data quality checks are conducted on all companies prior to the publication of their BISR evaluations.
- **Analytical review:** Evaluations are reviewed for data and content accuracy. Evaluations can be escalated to the MSCI ESG Impact and Screening Methodology Committee (“SMC”) for assistance in application or interpretation of the methodology.
- **MSCI ESG Impact and Screening Methodology Committee:** This committee addresses the following specific cases, as well as other escalations related to methodology application:
 - Requests to deviate from the standard methodology (decisions involving a company’s pending addition to, or removal from, a BISR evaluation for reasons that do not clearly fall within the current scope of the methodology).
 - Periodic review of evaluations prior to publication to ensure consistent methodology application.
 - Methodological clarifications or interpretations.
- **ESG Assessment Committee:** This committee presides over escalated or otherwise critical applications of MSCI ESG Research methodologies. Its responsibilities include the adjudication of methodology application cases escalated from the ESG Impact and Screening Methodology Committee.

Prior to the commencement of BISR evaluations, certain decisions that influence the evaluation are reviewed by the following committees:

- **Entity Classification Methodology Committee:** This committee presides over the application and interpretation of all evaluations related to the classification of entities for the purposes of conducting ESG Research evaluations. Approval by this committee is required for proposals to remove a fixed income issuer from a coverage universe, due to methodological or data availability reasons.

2.6. Coverage, corporate actions and related changes

The coverage universe can change due to coverage expansions initiated by MSCI ESG Research and due to changes in index constituents, which are periodically rebalanced by the index administrator.

2.6.1. New additions to indexes in the BISR coverage universe

- We aim to assess additions to the MSCI ACWI Index and MSCI US Investible Market Index (IMI) within one quarter of their inclusion in the relevant index.
- We aim to assess additions to any other indexes in the BISR coverage universe within two quarters of index inclusion.

2.6.2. Deletions to indexes in the BISR coverage universe

- When a company is removed from the BISR coverage universe, data and evaluations related to the company are no longer updated. Its data and report may still be available on the MSCI ESG distribution platforms data feeds.

2.6.3. Spin-offs

- If a new entity is a constituent of the MSCI ACWI Index and MSCI US Investible Market Index (IMI) we aim to assess it as a stand-alone entity within one quarter.
- If a company is in the BISR coverage universe, but is not a constituent of the MSCI ACWI Index and MSCI US Investible Market Index (IMI), we aim to assess it as a stand-alone entity within two quarters.

2.6.4. Mergers and acquisitions

- If an acquiring company has an existing BISR evaluation, the acquiring company's evaluation will consider the new acquired entity at the time of the next annual update for the acquiring company.
- If an acquiring company does not have an existing BISR evaluation, even if the acquired entity has an BISR evaluation, the company is considered a "new" entity and will be researched according to the index addition approach stated above.
- If a merger creates a new entity, it will be researched according to the index addition approach stated above.

2.6.5. Global Industry Classification Standard (GICS®)⁹ sub-industry classification change

- If a company’s GICS sub-industry classification changes it may trigger a change in the outcome of the first-stage review.

2.6.6. Name change

- The name of the company as listed in MSCI ESG distribution platforms will reflect the new name. However, the body of the company’s report will continue to refer to its original name until the next annual update.

2.7. Communication with corporate issuers

MSCI ESG Research is committed to transparent communication with corporate issuers in our coverage universe. For more details, please refer to the “Procedures for Corporate Issuer Interaction” document.¹⁰

2.8. Methodology governance and changes

2.8.1. Methodology governance

- **ESG Methodology Committee:** This committee presides over the development, review and interpretation of all MSCI ESG Research methodologies, including Business Involvement Screening Research.

Methodology update proposals are subject to market consultation prior to approval for implementation by the ESG Methodology Committee.

- **ESG Data Definitions Committee:** This committee oversees MSCI ESG Research’s new and existing data points and their definitions across all ESG data sets.

⁹ GICS, the global industry classification standard jointly developed by MSCI and Standard & Poor’s.

¹⁰ https://www.msci.com/documents/1296102/39141514/ESG+Research+Procedures+for+Issuer+Interaction_4.21.23.pdf?2

Appendix 1 - Business Involvement Screens

Appendix 1-A: Abortion Providers

MSCI ESG Research’s abortion-provider research identifies companies that own or operate facilities where abortions are, or could be, performed.

The research for Abortion Providers only includes acute care facilities as the procedures typically do not require long-term recovery time in healthcare facilities.

MSCI ESG Research only provides Abortion Providers research on companies with operations in nations where abortion services are permitted, based on the United Nations Department of Economic and Social Affairs data provided in *World Population Policies 2017 Abortion laws and policies*. Research is not conducted for companies exclusively operating in nations where all seven grounds for abortion services are prohibited.

Coverage Universe

Standard Business Involvement Screening Research coverage (BISR_COVERED).

Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		✓	As needed

Definitions

MSCI ESG Research defines abortion as a surgical procedure, either elective or non-elective, to terminate a pregnancy by the removal of the fetus or embryo from the uterus.

MSCI ESG Research defines acute care hospitals as facilities that are able to provide short-term treatment to patients. Acute services cover a wide range of healthcare functions such as emergency medicine, trauma care, pre-hospital emergency care, acute care surgery, critical care, urgent care, and short-term inpatient stabilization which may include termination of pregnancy. MSCI ESG Research identifies owners or operators of acute care facilities as Abortion Providers if the facilities are confirmed to be providing or being capable of providing abortion services. If the company provides more than two general medical services, then the service provider is flagged in the Abortion Provider – Own/Operate Acute Care Facilities screen.

The following services are determined as general medical services:

- Emergency medicine including, but not limited to ambulatory services and emergency departments.
- Outpatient department/facilities offering services or treatment without an overnight stay.
- Urgent care facilities dedicated to delivering medical care outside an emergency department on an unscheduled or walk-in basis, where the required medical attention is not serious enough to warrant a patient going to the emergency room.

- General surgery departments that operate theaters, rooms and beds.
- OB-GYN maternity rooms or beds, delivery rooms and women’s health.
- Same-day and walk-in appointment or same-day/walk-in surgery.
- Other services may include Neonatal healthcare (newborn health), Reproductive Healthcare, and Women’s Healthcare.

Exclusions

- Companies operating exclusively in countries in which abortion is illegal on all grounds, as indicated by the United Nations’ Department of Economic and Social Affairs Population Division’s World Abortion Policies document. The countries where abortion is illegal for all the categories below are El Salvador, Holy See, Malta and Nicaragua (*World Population Policies 2017 Abortion laws and policies – A global assessment – the latest available as of July 2023*).
 - The United Nations Department of Economic and Social Affairs’ *World Population Policies 2017 Abortion laws and policies – A global assessment* identifies seven circumstances under which abortion is permitted in nations. Seven grounds on which abortion is permitted are distinguished: (1) to save a life; (2) to preserve physical or mental health; (3) in case of intellectual or cognitive disability; (4) because of fetal impairment; (5) in case of rape or incest; (6) for economic or social reasons; and (7) on request.
- Companies that manufacture abortifacient products. MSCI ESG Research provides separate research related to these activities;
- Hospitals and clinics that only offer long-term care;
- Specialized medical facilities that would not be intended for abortion providers, such as dental clinics, organ or blood banks, and mental health facilities;
- Cosmetic centers;
- Rehabilitation centers;
- Companies that only offer midwifery; and
- Companies that exclusively operate as Catholic faith-based healthcare systems.

Screening data points hierarchy

Note that the Abortion – Any Tie data point includes all Abortifacients involvement screens, which are defined in Appendix 1-B: Abortifacients.



Activity specific involvement data points

Abortion - Any Tie

Data point Description	Indicates whether the company provides abortions, owns or operates acute care facilities, is involved in the production of abortifacients, or is involved indirectly through ownership ties to companies involved in such products or services. The value is “True” if one or more of the underlying involvement factors is “True.”
Short Name	ABORT_TIE

Abortions Provider

Data point Description	Companies that own or operate a facility in a jurisdiction where at least one legal ground for abortion is allowed and where abortions have been performed within the last three fiscal years.
Short Name	ABORTION_PROVIDER
Additional Information	Companies are placed on the Abortion Providers screen if the company publicly disclosed that its services include abortion procedures or if MSCI ESG Research received direct confirmation from the company that an abortion has been performed in its facilities within the last three years.
Specific Inclusions	<ul style="list-style-type: none"> All forms of abortion services, including urgent medical necessities and emergencies to save a person's life.
Specific Exclusions	<ul style="list-style-type: none"> Facilities that have not performed abortions in the last three fiscal years; and Real Estate Investment Trusts (REITs).

Abortion Provider - Own/Operate Acute Care Facilities

Data point Description	Companies that own or operate acute care hospitals or surgical centers in places where at least one legal ground for abortion is allowed.
Short Name	ABORTION_ACUTE_CARE
Additional Information	<p>A facility is considered eligible for screen inclusion when two or more of the general medical services are provided by a facility.</p> <p>Includes companies that own or operate acute-care facilities with the capacity to perform abortions.</p> <p>The Abortion Provider - Own/Operate Acute Care Facilities screen includes companies that state they do not provide abortions if they meet the conditions as an owner or operator of acute care facilities.</p>
Specific Inclusions	<ul style="list-style-type: none"> All forms of abortion services, including urgent medical necessities and emergencies to save a person's life.
Specific Exclusions	<ul style="list-style-type: none"> Real Estate Investment Trusts (REITs).

Appendix 1-B: Abortifacients

MSCI ESG Research’s abortifacients research identifies companies that manufacture abortifacient products. The research describes both the type of involvement and the revenue from that involvement.

Coverage Universe

Standard Business Involvement Screening Research coverage (BISR_COVERED).

Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

Definitions

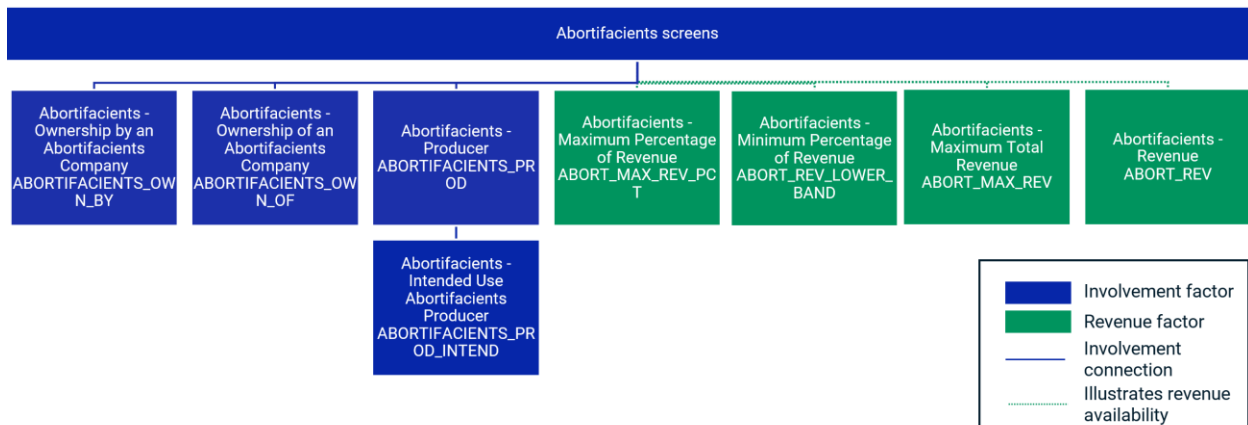
An abortifacient is defined as any drug, compound or chemical that results in the termination of pregnancy by causing the cervix to dilate and the uterus to prematurely contract. MSCI ESG Research includes drugs or other agents primarily designed or approved for use in the termination of pregnancy, as well as drugs or other agents recognized by medical authorities as having a

significant secondary use in the termination of pregnancy, including methotrexate, misoprostol, oxytocin, dinoprost, hemabate (carboprost), RU 486 (mifepristone) or gemeprost.

Exclusions

- Companies that solely market, license or distribute abortifacients;
- Companies that manufacture non-abortifacient specific products such as saline solution;
- Companies that retail or prescribe abortifacients, such as pharmacies, dispensaries or hospitals;
- Companies that manufacture abortifacient drugs exclusively for research purposes;
- Companies that manufacture abortifacient drugs exclusively for use on animals and/or veterinary drugs;
- Companies that produce drugs that list abortion as a side effect; and
- Companies that provide abortion services; MSCI ESG Research provides separate research related to these activities.

Screening data points hierarchy



Please note that the abortifacients screen does not have an Any Tie data point.

Activity specific involvement data points

Abortifacients Producer

Data point Description	Companies that develop or produce products that are, or could be, used as abortifacients.
Short Name	ABORTIFACIENTS_PROD
Additional Information	This data point includes intended use and multiple use abortifacients. If a company manufactures a product that MSCI ESG Research has identified as an abortifacient but tells MSCI ESG Research that its products

	are not marketed or used for this purpose, the company is still included on the report.
Specific Inclusions	<p>Intended use drugs, such as:</p> <ul style="list-style-type: none"> • Mifepristone (RU-486) <p>Multiple use drugs, such as:</p> <ul style="list-style-type: none"> • Methotrexate • Misoprostol • Gemeprost • Carboprost • Dinoprost • Oxytocin
Specific Exclusions	N/A

Abortifacients - Intended Use Abortifacients Producer

Data point Description	Companies that develop or produce products specifically marketed for their ability to induce abortions.
Short Name	ABORTIFACIENTS_PROD_INTEND
Additional Information	Multiple-use drugs such as methotrexate and misoprostol will not typically meet this definition, while mifepristone (RU-486) will.
Specific Inclusions	<p>Intended use drugs, such as:</p> <ul style="list-style-type: none"> • Mifepristone (RU-486)
Specific Exclusions	<p>Multiple use drugs, such as:</p> <ul style="list-style-type: none"> • Methotrexate • Misoprostol • Gemeprost • Carboprost • Dinoprost • Oxytocin

Appendix 1-C: Adult Entertainment

MSCI ESG Research’s adult entertainment research identifies companies involved in the production, distribution or retailing of adult entertainment products. The research describes both the type of involvement and the revenue from that involvement.

Coverage Universe

Standard Business Involvement Screening Research coverage (BISR_COVERED).

Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

Definitions

MSCI ESG Research defines adult entertainment products as material in which the dominant theme is sexually explicit conduct.

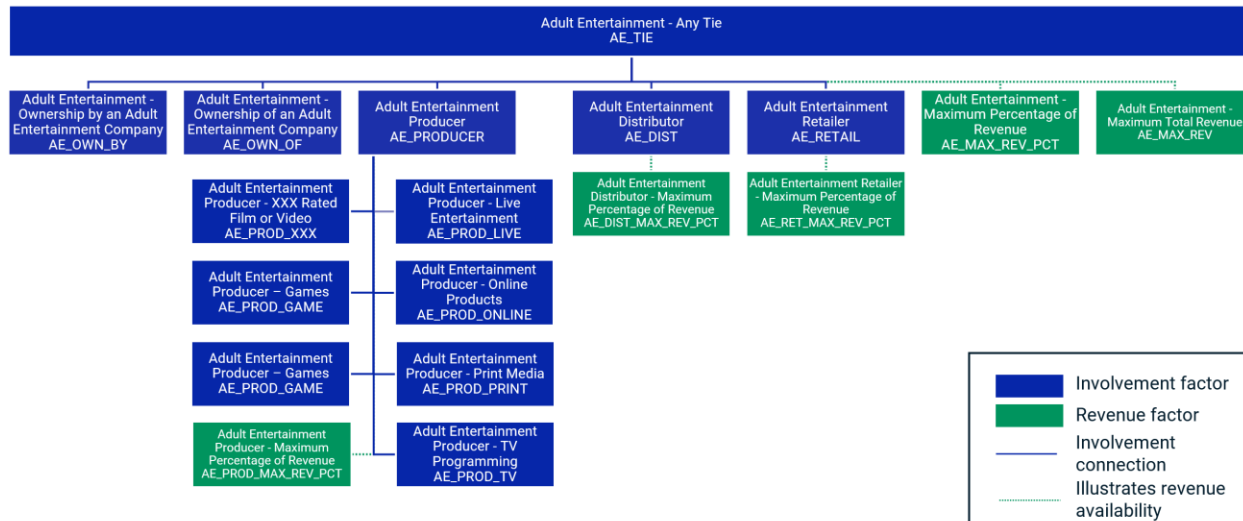
The term “adult entertainment” is used interchangeably with “sexually explicit material” and “sexually explicit adult entertainment.”

Exclusions

- Internet service providers that host adult entertainment sites operated by third parties;
- Software companies that have products used to maintain adult entertainment websites;
- Companies that manufacture sex toys, lubricants, contraceptives or lingerie;
- Companies that operate adult dating sites or provide adult telephone services;
- Companies that are involved in adult entertainment advertising or marketing;
- Companies that operate pool halls, bars, casinos or other establishments that restrict access of minors but do not permit nude entertainment;
- Companies that publish romance novels without sexually explicit images;
- Companies that only offer video sharing platforms and allow third-party users to upload adult content;
- Companies that offer escort services;
- Railroad, shipping and transportation companies that may also transport adult entertainment products;
- Companies that own and/or operate non-adult entertainment websites that may contain pornographic images; and

- E-commerce and online marketplace companies that only facilitate transactions between parties but do not directly sell involved products.

Screening data points hierarchy



Activity specific involvement data points

Adult Entertainment - Any Tie

Data point Description	Indicates whether the company is involved in the production, distribution or retail of adult entertainment products or services, or is involved indirectly through ownership ties to companies involved in such products or services. The value is “True” if one or more of the underlying involvement factors is “True.”
Short Name	AE_TIE

Adult Entertainment Producer

Data point Description	Companies involved in the production of adult entertainment.
Short Name	AE_PRODUCER
Additional Information	N/A
Specific Inclusions	N/A

Specific Exclusions	N/A
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Adult Entertainment Producer - XXX Rated Film or Video

Data point Description	Companies that produce or publish motion pictures and videos containing sexually explicit material.
Short Name	AE_PROD_XXX
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Adult Entertainment Producer - Games

Data point Description	Companies that produce sexually explicit video games.
Short Name	AE_PROD_GAME
Additional Information	Only includes producer of games that have sexually explicit content.
Specific Inclusions	<ul style="list-style-type: none"> Companies that produce games with a rating of Nudity and Strong Sexual Content, as provided by the U.S. Entertainment Software Rating Board.
Specific Exclusions	N/A

Adult Entertainment Producer - Live Entertainment

Data point Description	Companies involved in the live adult entertainment industry.
Short Name	AE_PROD_LIVE
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> Companies that own, operate or license commercial establishments such as strip clubs, gentlemen’s clubs, nude stage shows or adult entertainment booths, where the owner, agent or an employee

	<p>participates, permits, allows, encourages or pays any person to engage in nude or sexually explicit entertainment on the premises.</p> <ul style="list-style-type: none"> All live acts showing any nudity are considered if they are limited to adult viewing.
Specific Exclusions	N/A

Adult Entertainment Producer - Online Products

Data point Description	Companies that own or operate websites with sexually explicit content intended for adult audiences.
Short Name	AE_PROD_ONLINE
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> Live interactive cybercast performances and adult video on-demand sites. Sexually explicit mobile games.
Specific Exclusions	N/A

Adult Entertainment Producer - Print Media

Data point Description	Companies that produce physical printed adult entertainment media.
Short Name	AE_PROD_PRINT
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	<ul style="list-style-type: none"> Digital media

Adult Entertainment Producer - TV Programming

Data point Description	Companies that produce sexually explicit programs made specifically for television targeting adult viewers, including pay-per-view.
Short Name	AE_PROD_TV

Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Adult Entertainment Distributor

Data point Description	Companies involved in the distribution of adult entertainment products and services.
Short Name	AE_DIST
Additional Information	Companies are still considered for the distributor screen if they sell directly to final consumers.
Specific Inclusions	<ul style="list-style-type: none"> • Cable or digital TV providers.
Specific Exclusions	N/A

Adult Entertainment Retailer

Data point Description	Companies involved in the retail of adult entertainment products.
Short Name	AE_RETAIL
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Appendix 1-D: Alcohol

MSCI ESG Research’s alcohol research identifies companies that produce, distribute, retail, license or supply alcoholic beverages, key products and services. The research describes both the type of involvement and the revenue from that involvement.

Coverage Universe

Standard Business Involvement Screening Research coverage (BISR_COVERED).

Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

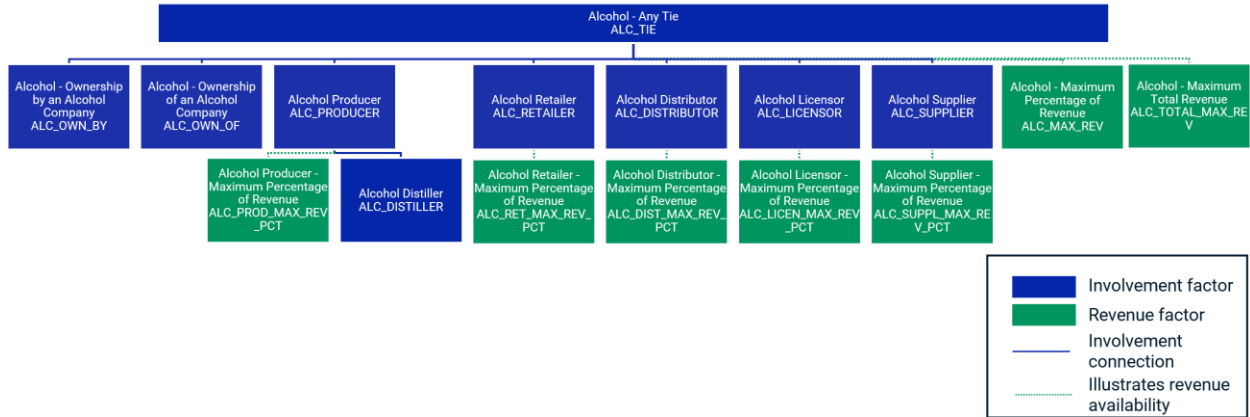
Definitions

An alcoholic beverage is defined as any fermented liquor that contains ethyl alcohol or ethanol as an intoxicating agent. MSCI ESG Research captures alcoholic products that contain over 0% alcohol by volume (ABV).

Exclusions

- Railroad, shipping and transportation companies that may also transport alcoholic beverages;
- Companies that are engaged in the advertising or marketing of alcoholic products;
- Companies that organize events sponsored by alcohol companies;
- Companies that produce packaging such as beer bottles, wine bottles, aluminum cans, wine corks or bottle caps;
- Companies that produce hardware beverage-processing solutions such as brewing filtration, purification and fermentation systems;
- Companies that produce chocolates with liquor;
- Companies that produce wines specifically intended for use in cooking;
- Real Estate Investment Trusts (REITs);
- Companies that only distribute or retail raw materials used to produce alcoholic beverages; and
- E-commerce and online marketplace companies that only facilitate transactions between parties but do not directly sell involved products.

Screening data points hierarchy



Activity specific involvement data points

Alcohol - Any Tie

Data point Description	Indicates whether the company is involved in the production, distribution, or retail of alcoholic products, as a licensor of brand names for alcoholic products, as a supplier for alcoholic products or is involved indirectly through ownership ties to companies involved in such products or services. The value is “True” if one or more of the underlying involvement factors is “True.”
Short Name	ALC_TIE

Alcohol Producer

Data point Description	Companies that produce alcoholic products.
Short Name	ALC_PRODUCER
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> • Brewers, distillers and vintners; • Companies that own or operate wine vineyards; and • Companies that sell private-label alcoholic beverages manufactured by a third party are considered retailers, not manufacturers, and must meet the retailer criteria.
Specific Exclusions	N/A

Alcohol Distiller

Data point Description	Companies that produce distilled alcoholic products.
Short Name	ALC_DISTILLER
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Alcohol Retailer

Data point Description	Companies that generated revenue from sale of alcoholic products, excluding distribution.
Short Name	ALC_RETAILER
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> • Supermarkets; • Liquor stores; • Bars and pubs; and • Duty-free stores.
Specific Exclusions	N/A

Alcohol Distributor

Data point Description	Companies involved in the wholesale distribution of alcohol products to retailers.
Short Name	ALC_DISTRIBUTOR
Additional Information	N/A
Specific Inclusions	N/A

Specific Exclusions	N/A
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Alcohol Licensor

Data point Description	Companies that license a brand name to alcoholic products.
Short Name	ALC_LICENSOR
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Alcohol Supplier

Data point Description	Companies that produce and supply key raw materials and other products used specifically to produce alcoholic products.
Short Name	ALC_SUPPLIER
Additional Information	Only identifies companies that produce raw materials.
Specific Inclusions	Malt, hops, molasses, sweeteners, distilled spirits, alcohol flavoring, chemical additives, "pure alcohol" and "potable alcohol."
Specific Exclusions	Distributors or retailers of such raw materials.

Appendix 1-E: Animal Welfare

MSCI ESG Research’s animal welfare research identifies companies involved in testing products or product ingredients of any sort on animals, breeding animals for animal testing purposes, exhibiting animals and operating factory farms. MSCI ESG Research includes publicly traded companies that perform testing activities in-house, as well as those that outsource that testing to third parties. Also included are companies that conduct tests when required by law, regulations, or government authorities.

Coverage Universe

Standard Business Involvement Screening Research coverage (BISR_COVERED).

Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

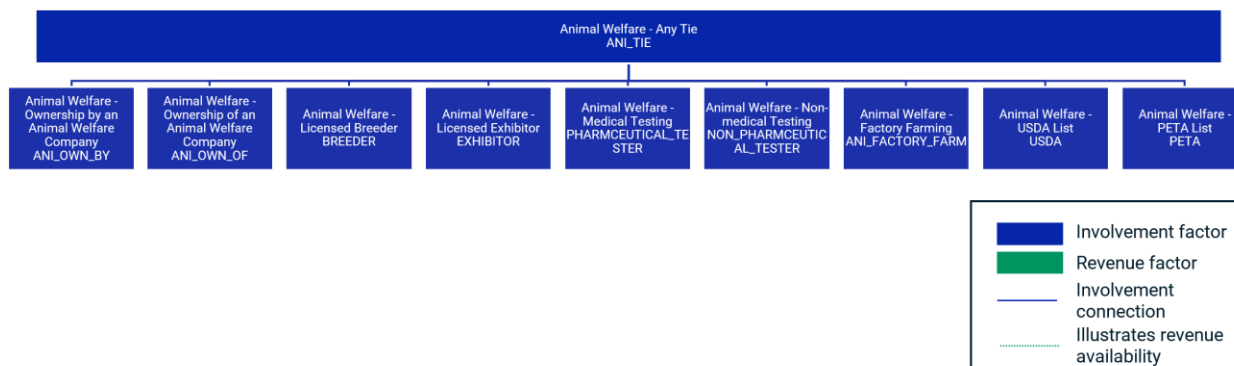
Definitions

Animal Welfare research refers to the research and testing performed on animals to determine safety and efficacy of specific products; factory farming; and the breeding and exhibiting of animals.

Exclusions

- Companies that produce food products containing meat or other animal products;
- Companies that use animals to produce antibodies;
- Companies that manufacture veterinary products;
- Companies involved in fur production or retail. MSCI ESG Research provides separate research related to these activities;
- Companies involved in producing products with leather;
- Companies that conduct tests on aquatic and invertebrate organisms or Effluence/WET Tests; and
- Companies that manufacture and develop equipment as well as other supporting technologies used for animal testing.

Screening data points hierarchy



Activity specific involvement data points

Animal Welfare - Any Tie

Data point Description	
	Indicates whether the company is involved in animal testing, factory farming, exhibiting animals, breeding animals, or is involved indirectly through

	ownership ties to companies involved in such activities or services. The value is “True” if one or more of the underlying involvement factors is “True.”
Short Name	ANI_TIE

Animal Welfare - Licensed Breeder

Data point Description	Companies that are licensed by the Animal and Plant Health Inspections Service (APHIS), a USDA department, to breed animals for use in laboratory testing.
Short Name	BREEDER
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Animal Welfare - Licensed Exhibitor

Data point Description	Companies that are licensed by the U.S. Department of Agriculture (USDA) to have animals on display.
Short Name	EXHIBITOR
Additional Information	This data point only identifies U.S.-based companies or international companies with U.S.-based laboratories, branches or offices.
Specific Inclusions	N/A
Specific Exclusions	N/A

Animal Welfare - Medical Testing

Data point Description	Companies that conduct animal testing for medicines, drugs or medical devices intended for human use.
Short Name	PHARMCEUTICAL_TESTER
Additional Information	Includes companies conducting tests to satisfy regulatory or legal requirements.

Specific Inclusions	<ul style="list-style-type: none"> Includes animal testing for drugs, vaccines, over the counter (OTC) medicines and research or studies involving the use of animal models.
Specific Exclusions	N/A

Animal Welfare - Non-medical Testing

Data point Description	Companies that conduct animal testing for non-medical products.
Short Name	NON_PHARMCEUTICAL_TESTER
Additional Information	Includes companies conducting tests to satisfy regulatory or legal requirements.
Specific Inclusions	<p>Includes animal testing for:</p> <ul style="list-style-type: none"> Chemicals; Food & Food Ingredients; Cosmetics; Consumer Products (e.g., household cleaning, ink paper); Agricultural products (e.g., tobacco, crop protection); and Other non-medical products (e.g., marine equipment, materials).
Specific Exclusions	N/A

Animal Welfare - Factory Farming

Data point Description	Companies involved in commercial animal husbandry for the purpose of food production.
Short Name	ANI_FACTORY_FARM
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	<ul style="list-style-type: none"> Companies with farms that focus exclusively on organics or that are free-range; Companies such as supermarkets that have “private label” animal products, unless they are involved in the supply chain;

	<ul style="list-style-type: none"> • Companies that own milk or dairy processing facilities, unless they also own or operate the dairy farms where cows are raised and milked; • Companies that own or operate meat-processing facilities but do not raise or slaughter animals; • Companies involved in the raising, breeding, or processing of fish and other aquaculture products; and • Companies involved in the raising, breeding, or processing of animals exclusively for entertainment, leisure, labor, scientific, industrial and other similar purposes.
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MSCI ESG Research monitors several different lists that indicate involvement in animal testing activities and provides clients with a comprehensive record of publicly traded companies included on those lists:

Animal Welfare - USDA List

Data point Description	Companies that are on the U.S. Department of Agriculture (USDA) list of facilities that conduct animal testing.
Short Name	USDA
Additional Information	Data point specific sources include: <ul style="list-style-type: none"> • https://www.aphis.usda.gov/animal_welfare/downloads/List-of-Active-Licensees-and-Registrants.pdf • https://aphis.my.site.com/PublicSearchTool/s/inspection-reports

Animal Welfare - PETA List

Data point Description	Companies that are on the People for the Ethical Treatment of Animals' (PETA) "Companies That Do Test on Animals" list, which includes both companies that produce animal-tested products and brands that are owned by companies that have not yet adopted a permanent "no animal testing" policy.
Short Name	PETA
Additional Information	Data point specific sources include: <ul style="list-style-type: none"> • https://crueltyfree.peta.org/wp-content/uploads/companies-do-test.pdf

MSCI ESG Research also maintains four "positive" or "offsetting" data points that may indicate to certain clients that a company, although involved in animal testing, could be treated differently than companies without these positive indicators.

Animal Welfare - Testing Policy (Positive Indicator)

Data point Description	Companies that disclose statements or policies addressing the welfare of animals used for laboratory testing.
Short Name	ANI_TEST_POLICY
Additional Information	<p>Company policies should mention any of these best practices to be included in this category:</p> <ul style="list-style-type: none"> • Commit to the highest standards of respectful, humane care of animals used in testing; • Conform to or exceed standards that are set by animal rights advocates; or • Address the three Rs (reduce, refine and replace the use of animals in animal testing).
Specific Inclusions	N/A
Specific Exclusions	N/A

Animal Welfare - Support Alternatives (Positive Indicator)

Data point Description	Companies that disclose statements in support of researching or employing alternatives to animal testing.
Short Name	ANI_TEST_POLICY
Additional Information	<p>The company should mention that either it is researching or executing alternatives to animal testing or has adopted the three Rs (reduce, refine and replace the use of animals in animal testing).</p> <p>Data point specific sources include:</p> <ul style="list-style-type: none"> • https://frame.org.uk/how-you-can-help/corporate-support/
Specific Inclusions	N/A
Specific Exclusions	N/A

Animal Welfare - AAALAC Accreditation (Positive Indicator)

Data point Description	Companies that are accredited by the Association of Assessment and Accreditation of Laboratory Animal Care (AAALAC).
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Short Name	AAALAC
Additional Information	<p>The Association of Assessment and Accreditation of Laboratory Animal Care (AAALAC) is a private, nonprofit organization that promotes humane treatment of animals in science through voluntary accreditation. The program evaluates organizations that use animals in research, teaching or testing. The accreditation process requires internal review, site assessment and a program that describes animal care.</p> <p>Data point specific sources include:</p> <ul style="list-style-type: none"> • https://www.aaalac.org/accreditation-program/directory/directory-of-accredited-organizations-search-result/
Specific Inclusions	<ul style="list-style-type: none"> • Companies that are listed on AAALAC's directory of accredited organizations.
Specific Exclusions	<ul style="list-style-type: none"> • Companies claiming that they or their suppliers are accredited by AAALAC but are not listed on AAALAC's directory.

Animal Welfare - NIH Assured (Positive Indicator)

Data point Description	Companies assured by the National Institutes of Health (NIH) – an agency of the U.S. Department of Health & Human Services responsible for bio-medical and health-related research.
Short Name	NIH_ASSURED
Additional Information	<p>The National Institutes of Health (NIH) ensures the humane care and use of laboratory animals, testing, training and supported research.</p> <p>Data point specific sources include:</p> <ul style="list-style-type: none"> • https://olaw.nih.gov/assured/app/index.html#DOMESTIC • https://olaw.nih.gov/assured/app/index.html#FOREIGN
Specific Inclusions	N/A
Specific Exclusions	N/A

Appendix 1-F: Biocides

MSCI ESG Research’s biocides research identifies companies involved in the production or the supply of chemicals used to control unwanted organisms. The research describes both the type of involvement and the revenue from that involvement.

Coverage Universe

Standard Business Involvement Screening Research coverage (BISR_COVERED).

Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

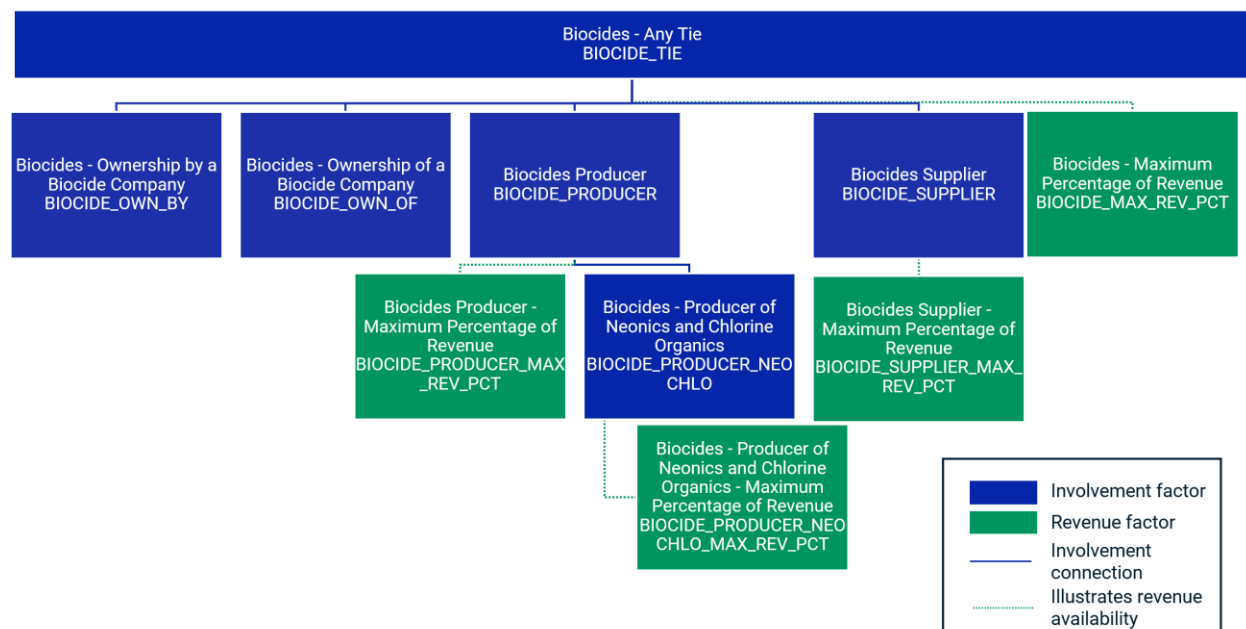
Definitions

Biocides are defined as products used to control unwanted organisms. These include pesticides, rodenticides, insecticides and antifouling products.

Exclusions

- Genetically modified organisms that act as pesticides/biocides;
- Companies that only retail pesticides/biocides;
- Companies that only manufacture disinfectants and hygiene products;
- Companies that only manufacture preservatives and embalming products; and
- Companies that produce chemicals for research purposes only.

Screening data points hierarchy



Activity specific involvement data points

Biocides - Any Tie

Data point Description	Indicates whether the company is involved in the production or supply of biocides, or is involved indirectly through ownership ties to companies involved in such products. The value is “True” if one or more of the underlying involvement factors is “True.”
Short Name	BIOCIDE_TIE

Biocides Producer

Data point Description	Companies that produce biocides including antifouling products and pesticides.
Short Name	BIOCIDE_PRODUCER
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> Rodenticides, avicides, molluscicides, vermicides, piscicides and insecticides.
Specific Exclusions	N/A

Biocides - Producer of Neonics and Chlorine Organics

Data point Description	Companies involved in the production of pesticides containing neonicotinoids or organochlorine compounds.
Short Name	BIOCIDE_PRODUCER_NEOCHLO
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Biocides Supplier

Data point Description	Companies that provide chemicals or other raw materials to a biocides producer that are specifically formulated for use in biocides.
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Short Name	BIOCIDE_SUPPLIER
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Appendix 1-G: Breast Milk Substitutes

MSCI ESG Research’s BMS screen identifies companies that have been flagged by the International Baby Food Action Network (IBFAN) as violating the International Code of Marketing of Breast Milk Substitutes.

Coverage Universe

Standard Business Involvement Screening Research coverage (BISR_COVERED).

Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

Activity specific involvement data points

Breast Milk Substitutes

Data point Description	Companies identified by the International Baby Foods Action Network (IBFAN) to be in violation of the International Marketing Code on Breast Milk Substitutes.
Short Name	BREAST_MILK_SUBS
Additional Information	<p>The companies involved in the Breastmilk Substitutes screen is based on the report, Breaking the Rules, Stretching the Rules, by the International Baby Food Action Network (IBFAN) and International Code Documentation Centre (ICDC). The report lists evidence of company violation against the International Code of Marketing of Breastmilk Substitutes.</p> <p>As of December 2023, The Breaking the Rules, Stretching the Rules report has halted its updates. The Breast Milk Substitutes will reflect the most recent report available. If the report resumes publication, the screen will continue its scheduled updates.</p>

Specific Inclusions	<ul style="list-style-type: none"> Companies that manufacture infant formulas for 0-6 months that violates the International Marketing Code on Breast Milk Substitutes.
Specific Exclusions	<ul style="list-style-type: none"> Companies that only offer infant formula after 6 months; Companies that manufacture teats and feeding bottles; and Companies that manufacture baby food.

Appendix 1-H: Cannabis

MSCI ESG Research’s Cannabis research identifies companies involved in the production, retailing or pharmaceutical research of cannabis. The research describes both the type of involvement and the revenue from that involvement.

Coverage Universe

Standard Business Involvement Screening Research coverage (BISR_COVERED).

Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

Definitions

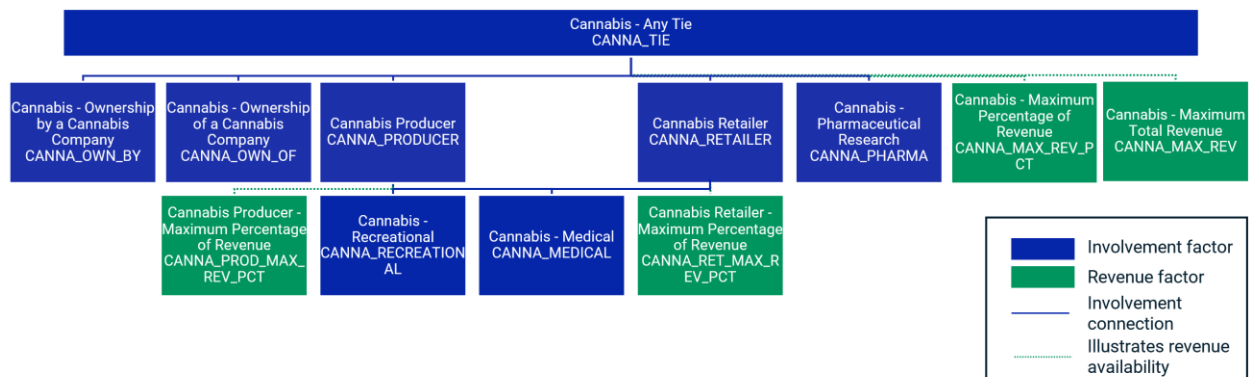
Cannabis products and derivatives usually come from the dried leaves and flowers of the *Cannabis sativa* or *Cannabis indica* plant. It has a psychoactive substance that can be used for both medicinal and recreational use. Its main psychoactive chemical component is tetrahydrocannabinol (THC).

Exclusions

- Companies that manufacture synthetic cannabis or Marinol/Dronabinol (chemical that has the same characteristics of Tetrahydrocannabinol (THC));
- Companies that produce or retail products that are Cannabidiol (CBD)-based. Products that are CBD-based are non-psychoactive;
- Companies that produce Cannabis products sourced from [Industrial] hemp plant. Products sourced from hemp plants are high in CBD content, therefore are classified as non-psychoactive;
- Companies that produce complementary cannabis products, such as matches, lighters, pipes, bongs and hookahs. These products are considered complementary products as they do not add any intrinsic value to the final product;
- Companies that produce or sell exclusively vaporizers and not cannabis oil;
- Companies that produce or sell topical beauty products that contain cannabis. These products are mainly CBD-based and are non-psychoactive;

- Companies providing support services, such as financial solutions, capital investments, consultancy, payment solutions, etc.;
- Companies that manufacture products and farming equipment used in cannabis farming, such as fertilizers, chemicals and harvesting equipment;
- Companies that manufacture equipment, such as cannabis-drying machines, scales, labeling machines, lighting and packaging machines. Equipment such as this is considered secondary as they contribute to non-essential portions of the cannabis manufacturing process;
- Companies engaged in or providing marketing and technology support for cannabis products;
- Companies engaged in the import/export, shipping, railroad and transportation of cannabis or cannabis-related products;
- Companies that supply, distribute and/or retail raw materials used in production of cannabis products;
- Companies and real estate investment trusts (REITs) engaged in leasing land or facilities to grow cannabis;
- Companies that are financing/funding research for medical cannabis; and
- E-commerce and online marketplace companies that only facilitate transactions between parties but do not directly sell involved products.

Screening data points hierarchy



Activity specific involvement data points

Cannabis - Any Tie

Data point Description	Indicates whether the company is involved in the production or retail of cannabis products, research for such products, or is involved indirectly through ownership ties to companies involved in such products or activities. The value is “True” if one or more of the underlying involvement factors is “True.”
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Short Name	CANNA_TIE
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Cannabis Producer

Data point Description	Companies that produce cannabis products for medical or recreational use.
Short Name	CANNA_PRODUCER
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> • Edibles, leaves, oils, seeds, joints, blunts and other smoking material; • Companies that grow or process raw cannabis plants; • Companies that produce pharmaceutical products that have cannabis, cannabinoids or THC as ingredients; and • When a producer also distributes its own products, the distribution activity is included.
Specific Exclusions	<ul style="list-style-type: none"> • Pharmaceutical products still in research, development and/or testing are not included in this data point. They are flagged under the Cannabis Pharmaceutical – Research data point.

Cannabis - Recreational

Data point Description	Companies that produce or sell cannabis products for recreational use.
Short Name	CANNA_RECREATIONAL
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Cannabis - Medical

Data point Description	Companies that produce or sell cannabis products for medical use.
Short Name	CANNA_MEDICAL

Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Cannabis Retailer

Data point Description	Companies that retail cannabis products.
Short Name	CANNA_RETAILER
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	Cannabis Retailer does not include distribution activity.

Cannabis - Pharmaceutical Research

Data point Description	Companies engaged in the research or development of pharmaceutical products or therapeutic treatments involving cannabis, cannabinoids or THC.
Short Name	CANNA_PHARMA
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Cannabis Watchlist - License Applicant/Development Stage Company

Data point Description	Companies awaiting regulatory approval of license to conduct cannabis-related activities and/or companies that are in the process of constructing cannabis-related facilities.
Short Name	CANNA_WATCHLIST_LICENSE_APPLICANT

Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Appendix 1-I: Cinemas

MSCI ESG Research’s cinema research identifies publicly traded companies that are involved in the production, distribution and screening of movies and television shows. The research describes both the type of involvement and the revenue from that involvement.

Coverage Universe

Islamic screen coverage universe (ISLAMIC_COVERED).

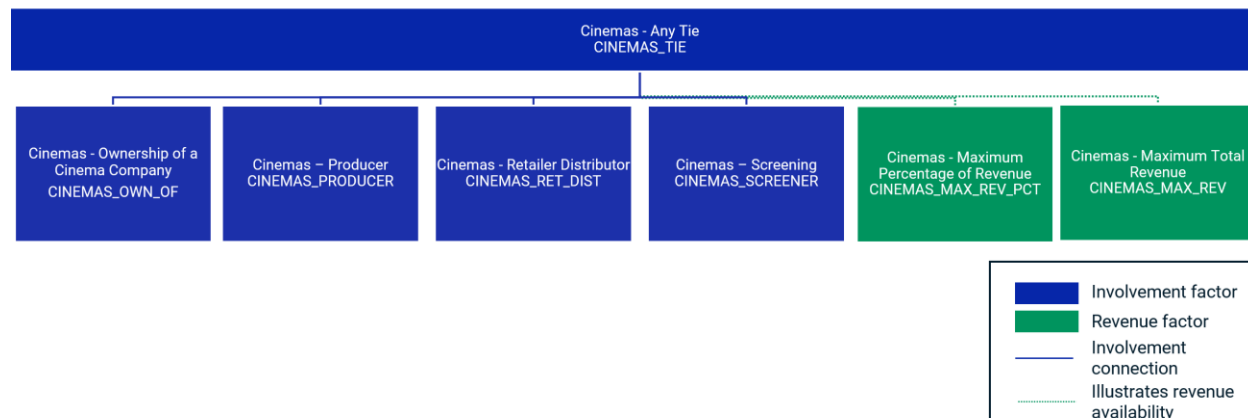
Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

Exclusions

- Manufacturer of electronic systems or devices;
- Companies operating establishments, such as airport, stores, or restaurants, that play movies or television shows for ambient entertainment; and
- E-commerce and online marketplace companies that only facilitate transactions between parties but do not directly sell involved products;

Screening data points hierarchy



Activity specific involvement data points

Cinemas - Any Tie

Data point Description	Indicates whether the company produces, sells or screens movies or television shows or is involved indirectly through ownership ties to companies involved in such products or services. The value is “True” if one or more of the underlying involvement factors is “True.”
Short Name	CINEMAS_TIE

Cinemas - Producer

Data point Description	Companies that produce movies or television shows.
Short Name	CINEMAS_PRODUCER
Additional Information	This also includes companies that provide pre-production services and post-production editing for TV shows and films.
Specific Inclusions	<ul style="list-style-type: none"> • Producers of: <ul style="list-style-type: none"> ○ Movies or television shows; ○ Live entertainment shows (including theatrical plays and other entertainment productions); ○ Video commercials; and ○ Video games.
Specific Exclusions	N/A

Cinemas - Retailer Distributor

Data point Description	Companies that sell or distribute movies or television shows, including owners and operators of television broadcasting systems and providers of cable or satellite television services.
Short Name	CINEMAS_RET_DIST
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> • Owners and operators of television broadcasting systems; • Providers of cable or satellite television services; • Video streaming sites; and • Retail stores, mobile sites and online shops that sell movies, TV shows, and video games in different media formats.
Specific Exclusions	N/A

Cinemas - Screening

Data point Description	Companies that screen movies or television shows, including movie theaters and inflight entertainment services.
Short Name	CINEMAS_SCREENER
Additional Information	N/A
Specific Inclusions	Operators of facilities that show theater productions and other live entertainment events/productions, such as theatre halls for plays and shows.
Specific Exclusions	N/A

Appendix 1-J: Civilian Firearms

MSCI ESG Research’s Firearms research identifies companies that manufacture handguns, pistols, shotguns, rifles, revolvers and ammunition intended for civilian use. The research describes both the type of involvement and the revenue from that involvement.

Coverage Universe

Standard Business Involvement Screening Research coverage (BISR_COVERED). The research may also include select significant or notable private companies.

Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓			As needed

Definitions

Firearms are devices capable of firing a projectile and using an explosive charge as a propellant.

Small arms are defined as individual-use portable lethal weapons that can expel or launch a shot, bullet, or projectile by action of explosive. Handguns (revolvers and self-loading pistols) and long guns (rifles and carbines, sub-machine guns, assault rifles, and light machine guns) are considered in this definition.

Types of civilian firearms and ammunitions products covered:

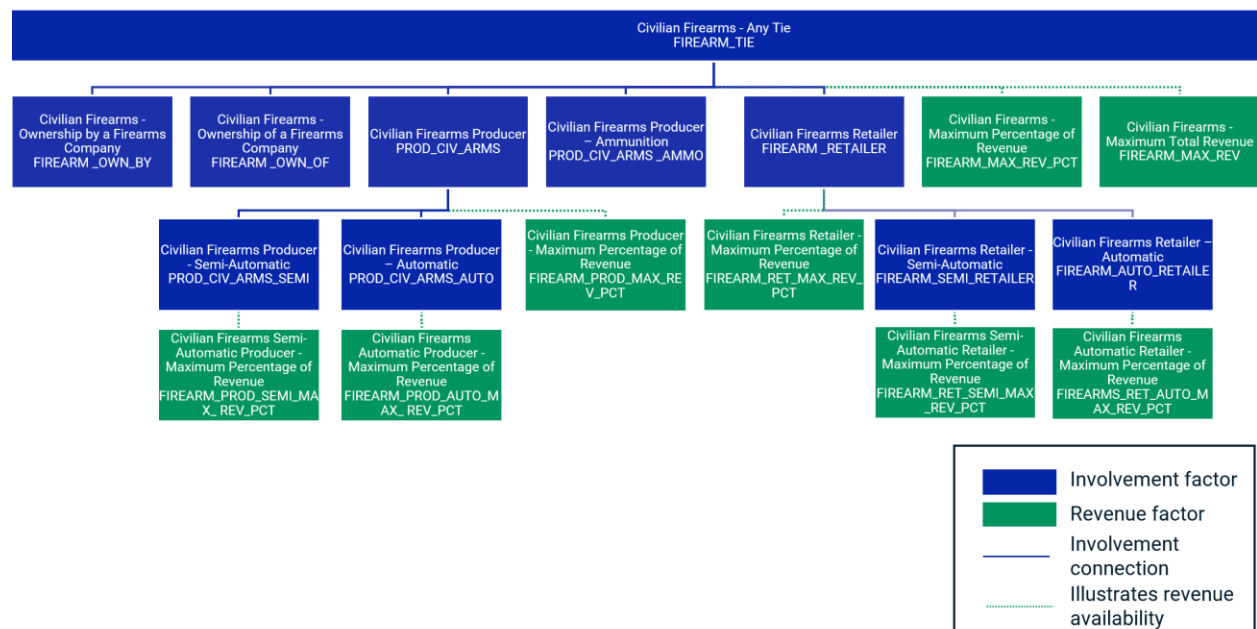
- Handguns or Pistols are the smallest of all small arms. There are three common types of handguns:
 - Single-shot pistols are firearms that hold any single round of ammunition and must be reloaded after each shot.
 - Revolvers are repeating firearms that have cylinders containing multiple chambers and at least one barrel for firing.
 - Semi-automatic pistols can be fired in semi-automatic mode, firing one cartridge for each pull of the trigger. Semi-automatic pistols are also called automatic pistols, self-loading pistols, self-loaders, auto-pistols and auto-loaders.
- Rifles are firearms designed to be fired from the shoulder using a relatively high-velocity round. These firearms are capable of accurate fire out to a few hundred meters.
- Carbines, also known as pistol-calibers, are like rifles and muskets firing the same ammunition, although often at a lower velocity. There are different classes of carbines: pistol calibers, short-barreled rifles and semi-automatic versions of submachine guns.
- Shotguns are shoulder-fired arms. Most have barrels with smooth bores and fire shells which include a wad. These shells may contain multiple lead or steel shots, slugs or less than lethal projectiles.
- Ammunition, often referred to as ammo or munitions when used collectively, specifically sold to the civilian markets.

Exclusions

- Firearms or ammunition components;
- Firearms and ammunition intended for the military, government and law enforcement markets;
- Air rifles, air pistols or airsoft guns;

- Toy guns, replica weapons, paintball guns, less than lethal ammunition and blank ammunition;
- Gun safety equipment such as trigger locks and safe storage boxes;
- Firearm accessories, such as scopes, shooting gloves, ammo carriers, mounts, gun care products, slings, belts and gun cases;
- Gun safety equipment, such as trigger locks and safe storage boxes; and
- E-commerce and online marketplace companies that only facilitate transactions between parties but do not directly sell involved products.

Screening data points hierarchy



Activity specific involvement data points

Civilian Firearms - Any Tie

<p>Data point Description</p>	<p>Indicates whether the company is involved in the production or retail of civilian firearms intended for civilian use, ammunition for such products, or is involved indirectly through ownership ties to companies involved in such products or services. The value is “True” if one or more of the underlying involvement factors is “True.”</p>
<p>Short Name</p>	<p>FIREARM_TIE</p>

Civilian Firearms Producer

Data point Description	Companies that produce firearms and small-arms ammunitions intended for civilian markets.
Short Name	PROD_CIV_ARMS
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	<ul style="list-style-type: none"> • Components of firearms.

Civilian Firearms Producer - Semi-Automatic

Data point Description	Companies that produce semi-automatic firearms intended for civilian markets.		
Short Name	PROD_CIV_ARMS_SEMI		
Additional Information	Companies that manufacture firearms which automatically eject the cartridge case of a fired shot and load the next cartridge from the magazine allowing the gun user to fire one round of ammunition for every pull of the trigger.		
Specific Inclusions	The research specifically targets semi-automatic firearms that possess certain cosmetic, ergonomic, or construction features of an assault rifle, including, but not limited to, any two of the following features:		
	Feature	Rifle/Carbine	Pistol
	an ability to accept a detachable magazine	Required	Required
	a folding, telescoping, or detachable stock	✓	✓
	a pistol grip that protrudes conspicuously beneath the action of the weapon	✓	✓
	a bayonet mount	✓	
	a flash suppressor or a threaded barrel designed to accommodate a flash suppressor, barrel extender, or silencer	✓	✓
	a grenade or rocket launcher	✓	
	an ammunition magazine that attaches		✓

	to the pistol outside of the pistol grip			
	a shroud that is attached to, or partially or completely encircles, the barrel and which permits the shooter to hold the firearm with the non-trigger hand without being burned	✓	✓	
	a manufactured weight of 50 ounces or more when the pistol is unloaded		✓	
	a fixed magazine capacity in excess of 5 rounds			✓
	a semi-automatic version of an automatic firearm model	✓	✓	✓
Specific Exclusions	<ul style="list-style-type: none"> Excludes the production of semi-automatic firearm ammunitions. 			

Civilian Firearms Producer - Automatic

Data point Description	Companies that produce automatic firearms intended for civilian markets.
Short Name	PROD_CIV_ARMS_AUTO
Additional Information	<p>Companies that manufacture firearms which automatically eject the cartridge case of a fired shot and load the next cartridge from the magazine allowing the gun user to fire more than one round of ammunition for every pull of the trigger.</p> <p>The research includes all types of weapons that are automatic or fully automatic, regardless of cosmetic, ergonomic, or construction features, as well as weapons that allow selective fire. Selective fire means that the gun user can choose a firing mode (semi-automatic, burst fire, or automatic).</p>
Specific Inclusions	N/A
Specific Exclusions	<ul style="list-style-type: none"> Excludes the production of automatic firearm ammunitions.

Civilian Firearms Producer - Ammunition

Data point Description	Companies that produce small-arms ammunitions intended for civilian markets.
Short Name	PROD_CIV_ARMS_AMMO

Additional Information	The data point includes, but is not limited to, powder-propelled, cartridge-based ammunition up to 20mm, which can be fired from weapons, such as revolvers and self-loading pistols, rifles and carbines, assault rifles, sub-machine guns and light/general purpose machine guns.
Specific Inclusions	<ul style="list-style-type: none"> Includes only the producers of ammunition.
Specific Exclusions	<ul style="list-style-type: none"> Companies that also manufacture civilian firearms; and Components of firearms or ammunition.

Civilian Firearms Retailer

Data point Description	Companies that distribute, either wholesale or retail, firearms or small-arms ammunition intended for civilian use.
Short Name	FIREARM_RETAILER
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> Companies that sell used firearms.
Specific Exclusions	N/A

Civilian Firearms Retailer - Semi-Automatic

Data point Description	Companies that distribute, either wholesale or retail, semi-automatic firearms intended for civilian use.
Short Name	FIREARM_SEMI_RETAILER
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> Companies that sell used firearms.
Specific Exclusions	N/A

Civilian Firearms Retailer - Automatic

Data point Description	Companies involved in the wholesale or retail distribution of automatic firearms intended for civilian use.
Short Name	FIREARM_AUTO_RETAILER

Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Appendix 1-K: Contraceptives

MSCI ESG Research’s contraceptives research identifies companies that manufacture or license their company brand name to contraceptive products. The research describes both the type of involvement and the revenue from that involvement.

Coverage Universe

Standard Business Involvement Screening Research coverage (BISR_COVERED).

Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

Definitions

Contraception is defined as the prevention of fertilization of the ovum by sperm cells.

Types of contraceptive products typically covered:

- **Hormonal Contraceptives.**
 - **Oral contraceptive pills** are typically Progestin-only pills (POPs) or “minipills,” containing the hormone progestin, a synthetic progesterone. POPs containing norethindrone are currently available in the U.S. and POPs containing levonorgestrel, desogestrel and other progestins are available in other countries. They also include Selective Estrogen Receptor Modulators (SERMs), which cause ovulation to occur asynchronously with the formation of uterine lining, preventing implantation.
 - **Combined Oral Contraceptives (COCs)** are typically pills that contain progestin and estrogen.
 - **Emergency Contraceptives Pills (ECPs)** commonly known as the “morning-after pill,” refers to oral contraceptive measures that, if taken after intercourse, may prevent pregnancy. These pills typically contain levonorgestrel alone or a combination of ethinyl estradiol and either norgestrel or levonorgestrel progestins.

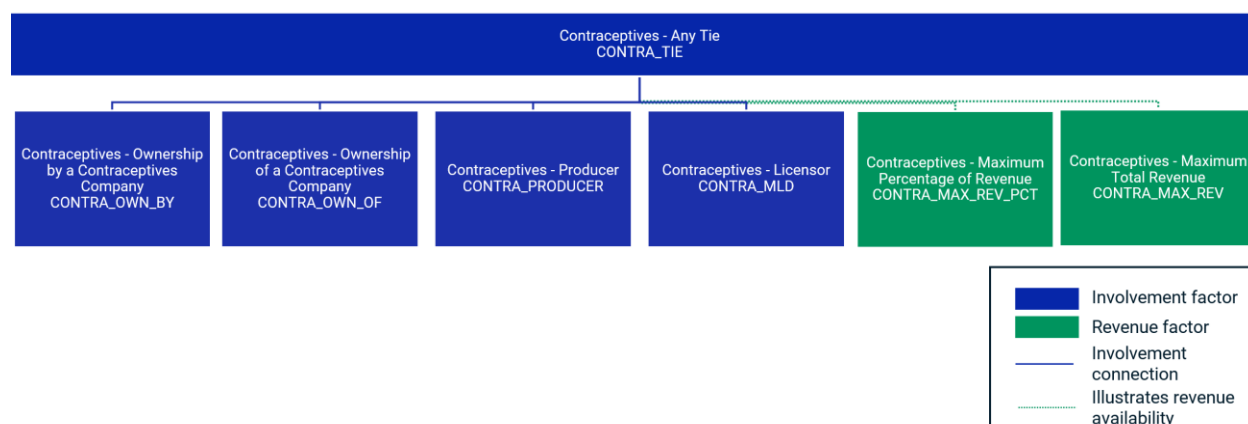
- **Injectable contraceptives** typically involve the injection of progesterone to inhibit fertility.
- **Contraceptive Patches** are typically thin, flexible, 20-centimeter patches with three layers: an outer protective polyester layer; a middle medicated adhesive layer; and a clear liner. Each patch typically contains 6 milligrams (mg) of norelgestromin and 0.75 mg of ethinyl estradiol.
- Vaginal Barriers that work by blocking and/or killing sperm cells.
 - **Female or Male Condoms** are flexible sheaths usually made of thin rubber latex that provide a physical barrier.
 - **Diaphragms** are a shallow, dome-shaped rubber disks with a flexible rim that fit within the vagina and cover the cervix.
 - **Caps** are thimble-shaped, soft rubber caps with a round rim that are fitted around the cervix by a health professional.
 - **Sponges** are doughnut-shaped polyurethane devices containing spermicide and a woven polyester loop that hangs down from the vagina for removal.
 - **Vaginal rings** are soft, transparent, flexible rings of ethylene vinyl acetate copolymer that release etonogestrel.
- Intrauterine Devices (IUDs) are birth control devices that are inserted in the uterus to prevent implantation. There are two broad categories of such devices: inert and copper-base devices, and hormonal intrauterine devices that release a progestogen.
- Contraceptive Implants are thin rods or tubes containing a progestin hormone inserted under the skin of a woman’s arm.
- Spermicide is a substance or agent that kills sperm cells. It may be used alone, with a vaginal barrier method or as an adjunct to any of the other contraceptive methods for added protection against pregnancy. Spermicides are an integral component of most vaginal barrier methods.
 - **Spermicidal Gels, Creams and Foams** are commonly marketed for use with a diaphragm but may also be used independently.
 - **Spermicide Suppositories** may be used alone or with a condom. They typically have a spermicidal concentration of 3% to 5%.
 - **Spermicide Films** may be used alone or with barriers. Each paper-thin sheet of film typically has a spermicide concentration of 28% and 72 mg to 100 mg Nonoxynol-9 (N-9), an active ingredient in most spermicides.
- Permanent contraceptives are inserts, administered by a physician, that cause additional tissue growth in the fallopian tubes. The result is a permanent, natural barrier to pregnancy.

Exclusions

- Companies that retail contraceptive products such as grocery stores, convenience stores and drug stores;
- Companies that market contraceptive products;

- Health Management Organizations (HMOs), schools, clinics, hospitals or other government agencies that distribute contraceptives;
- Insurance companies that reimburse for products or procedures related to birth control;
- Corporate supporters of Planned Parenthood, similar advocacy organizations or research for contraceptive products;
- Companies that are involved in tubal sterilization or vasectomy;
- Companies that manufacture pharmaceutical drugs that are not marketed as a contraceptive, but contain an active ingredient that is commonly used for contraceptives;
- Companies that produce medical instruments that have multiple uses;
- Companies that conduct clinical trials; and
- Companies that supply raw materials used in the development and production of contraceptive products (e.g., rubber for condoms, active pharmaceutical ingredients (APIs) commonly used in the formulation of contraceptives), as well as packaging materials.

Screening data points hierarchy



Activity specific involvement data points

Contraceptives - Any Tie

<p>Data point Description</p>	<p>Indicates whether the company is involved in the production of contraceptives, as a licensor of contraceptive products, or is involved indirectly through ownership ties to companies involved in such products or services. The value is “True” if one or more of the underlying involvement factors is “True.”</p>
<p>Short Name</p>	<p>CONTRA_TIE</p>

Contraceptives - Producer

Data point Description	Companies that produce or develop products intended to be contraceptives.
Short Name	CONTRA_PRODUCER
Additional Information	Includes products that are explicitly marketed for contraception.
Specific Inclusions	<ul style="list-style-type: none"> • Non-surgical contraceptives, even ones marked as permanent.
Specific Exclusions	<ul style="list-style-type: none"> • Invasive procedures or surgical procedures, such as tubal ligation and vasectomy

Contraceptives - Licensor

Data point Description	Companies that license a company or brand name for contraceptive products.
Short Name	CONTRA_MLD
Additional Information	Licensing operations research pertains to companies that are not producing or manufacturing a contraceptive product but license its own name or brand name to any contraceptive product.
Specific Inclusions	N/A
Specific Exclusions	N/A

Appendix 1-L: Conventional Finance

MSCI ESG Research’s Conventional Finance research identifies publicly traded companies that are involved in conventional finance and derive significant income from interest or financial services. The research describes both the type of involvement and the revenue from that involvement.

Coverage Universe

Islamic screen coverage universe (ISLAMIC_COVERED).

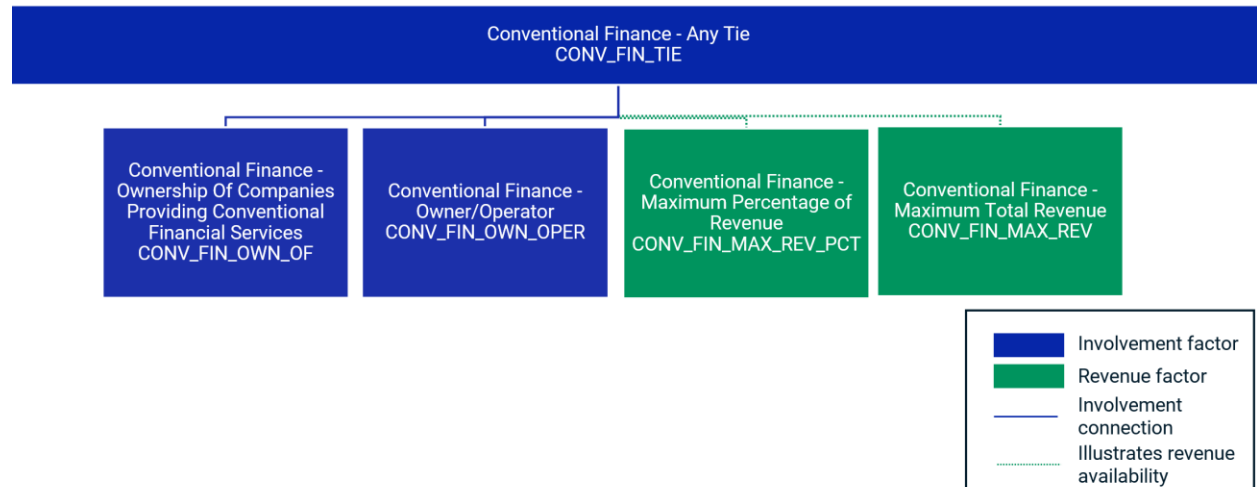
Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

Exclusions

- Companies that are identified as an Islamic Financial Institution;
- Companies that manufacture/provide finance technology and support services;
- Credit bureaus and other financial research companies that only provide financial data; and
- Companies providing tax preparation services.

Screening data points hierarchy



Activity specific involvement data points

Conventional Finance - Any Tie

Data point Description	Indicates whether the company is involved in providing conventional financial services, owns or operates commercial banks, or is involved indirectly through ownership ties to companies involved in such products or services. This excludes companies flagged for the Islamic Financial Institutions factor. The value is "True" if one or more of the underlying involvement factors is "True."
Short Name	CONV_FIN_TIE

Conventional Finance - Owner/Operator

Data point Description	Companies that provide conventional financial services or that own or operate commercial banks.
Short Name	CONV_FIN_OWN_OPER
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> • Commercial banks involved in retail banking, corporate lending, investment banking; • Companies involved in mortgage and mortgage related services; • Providers of financial services, including insurance, capital markets, and specialized finance; • Credit agencies; • Stock exchanges; • Specialty boutiques; • Consumer finance services, including personal credit, credit cards, lease financing, travel-related money services, money transfer, remittance firms, payment processing services, and pawn shops; (Other consumer finance/lending-related service such as loan origination services are included); • Financial institutions primarily engaged in investment management, related custody and securities fee-based services; • Companies operating mutual funds, closed-end funds and unit investment trusts; • Financial institutions primarily engaged in investment banking and brokerage services, including equity and debt underwriting, mergers and acquisitions; • Securities lending and advisory services institutions; and • Insurance and reinsurance brokerage firms, including companies providing property, casualty, life disability, indemnity or supplemental health insurance.
Specific Exclusions	<ul style="list-style-type: none"> • Islamic Financial Institutions.

Conventional Finance - Islamic Financial Institutions

Data point Description	Islamic Financial Institutions that are Shariah compliant.
Short Name	CONV_FIN_ISLAMIC_FIN_INSTI
Additional Information	<p>Islamic Financial Institutions that are Sharia compliant based on the following criteria:</p> <ul style="list-style-type: none"> • Has a Sharia Supervisory Board that overlooks the Sharia compliance of the company; • The Articles of Association of the company state that it will only undertake Sharia compliant activities; and • An opinion on Sharia compliance is included in the audited financial statements of the company.
Specific Inclusions	N/A
Specific Exclusions	N/A

Appendix 1-M: Dating Services

MSCI ESG Research’s Dating Services research identifies companies that offer online dating services, which cover websites or mobile applications that facilitate profile-based matchmaking, with the goal of developing romantic or sexual relationships.

Coverage Universe

Islamic screen coverage universe (ISLAMIC_COVERED).

Sources

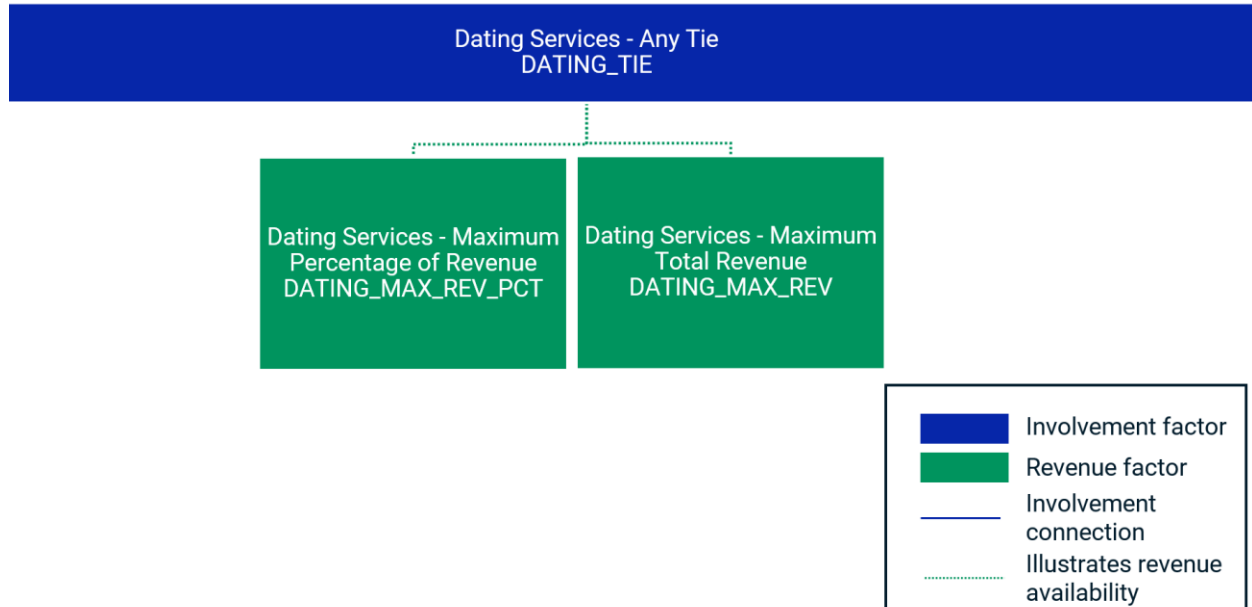
Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

Exclusions

- Software companies that develop and design dating applications and websites;
- Technology companies that provide IT support and maintenance services to dating applications and websites;
- Social media platforms that are intended for general social connections but have no specific feature for dating services;

- Social media platforms that partner with dating apps to link user profiles; and
- Muslim (Halal) dating and marriage websites and applications.

Screening data points hierarchy



Activity specific involvement data points

Dating Services - Any Tie

Data point Description	Companies that provide dating services.
Short Name	DATING_TIE

Appendix 1-N: For Profit Healthcare

MSCI ESG Research’s For Profit Healthcare screen identifies companies with ties to abortion or birth control, including HMOs that offer coverage for these products and services, as well as companies offering standard healthcare services. These screening options are divided into two data points, “Life Ethics” and “Services and Facilities”.

Coverage Universe

Business Involvement Screening Research For Profit Healthcare coverage (COV_FOR_PROFIT_HEALTH).

Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

Exclusions

Companies that:

- only lease space to nursing homes, assisted living facilities or long-term care facilities, or regular doctor’s offices;
- construct but do not own or operate medical facilities;
- provide insurance plans that cover abortions only if a woman's life is in danger;
- only act as distributor, insurance agent or broker, insurance underwriter or reinsurer;
- manufacture fertility drugs or forms of assisted reproductive technology;
- offer fertility testing;
- manufacture pharmaceuticals;
- produce or distribute surgical instruments not explicitly intended for use in OB/GYN-related procedures;
- provide prescription services, benefits management services, chronic disease management services or that are hired/contracted to assist patients with their treatment programs;
- provide home healthcare services such as in-home oxygen and respiratory services;
- offer dental products and services, or manage dental practices;
- cater to low-income or elderly individuals who receive healthcare benefits through government-sponsored programs as a subset of their services;
- offer diagnostic services and/or imaging systems are not considered for specialized healthcare;
- only provide software and/or technology solutions to hospitals and health insurance companies;
- only provide healthcare workforce and staffing services to hospitals and healthcare facilities; and
- exclusively operate as Catholic faith-based healthcare systems.

Note: Non-Catholic faith-based healthcare systems are not automatically included. Other religious affiliations are reviewed and evaluated to determine relevance for the screen. The exclusion is applicable to acute-care hospitals.

To align with the Abortion Providers screen, companies that operate acute-care facilities exclusively in countries where abortion is illegal on all grounds are excluded. The countries on

this list are El Salvador, Nicaragua, the Holy See and Malta (United Nations’ DESA World Abortion Policies, 2017 – the latest available as of July 2023).

Activity specific involvement data points

For Profit Healthcare - Life Ethics

Data point Description	Companies that own or operate one or more acute care hospitals or surgical centers that may provide general medical services, including abortions, lease space to hospitals, surgical centers, or short term acute care facilities, produce surgical instruments likely used in abortion procedures, including specula, dilators, laparoscopes, suction devices, and curettes or are involved in the production of in vitro fertilization (IVF) treatments, enabling technologies, and drugs. Also included are health insurance companies that cover routine medical procedures and expenses, including HMOs, PPOs, and PMOs. If a company specifically reports that it only covers abortions if a woman's life is in danger, it is not included.
Short Name	FPH_LIFE_ETHICS
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

For Profit Healthcare - Services and Facilities

Data point Description	Companies that own or operate specialized healthcare facilities, such as dialysis centers, radiation centers, rehabilitation facilities, acute care hospitals or surgical centers that may provide general medical services, including abortions, long term health facilities such as nursing homes, assisted living facilities, and long term acute care hospitals, psychiatric hospitals or behavioral health facilities. Also included are health insurance companies that cover routine medical procedures and expenses, including HMOs, PPOs, and PMOs. If a company specifically reports that it only covers abortions if a woman's life is in danger, it is not included.
Short Name	FPH_SERVICES_FACILITY
Additional Information	N/A
Specific Inclusions	N/A

Specific Exclusions	N/A
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For Profit Health Care - Surgical Instruments

Data point Description	Companies that produce surgical instruments used in abortion procedures, including specula, dilators, laparoscopes, suction devices and curettes.
Short Name	FPH_SURGICALINST
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Appendix 1-O: For Profit Prisons

MSCI ESG Research’s For Profit Prisons screen identifies companies that derive revenue from the operation of private prisons, jails, detention centers or correctional facilities or from the provision of integral services to these types of facilities. Integral services include complete facilities management (end-to-end), security services and detention services.

Coverage Universe

Business Involvement Screening Research For Profit Prisons coverage (FOR_PROFIT_PRISONS_COVERED).

Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

Definitions

For profit prisons: correctional facilities that are operated by private, profit-driven companies. This includes companies that have contractual agreements with government agencies to manage and operate prisons or correctional services.

For Profit Prisons alternatively may be known as private prisons.

Exclusions

- Companies that provide rehabilitation, probation and custodial services;

- Companies that serve for profit prisons by only providing supplemental services including cleaning, catering, environmental services, recreational programs and other such related services;
- Holding companies, banks and financial institutions that invest in companies that operate for profit prisons;
- Companies that own 50% or less of a company with involvement in for profit prisons;
- Real Estate Investment Trusts (REITs) that own property on which for profit prisons are located;
- Companies that lease land or space on which for-profit prisons are built and operated;
- Companies that purchase products manufactured using prison labor; and
- Companies that earn revenue from providing services directly to prison inmates, such as digital services.

Activity specific involvement data points

For Profit Prisons Operations & Services

Data point Description	Companies involved in the operation of for-profit prisons or the provision of their integral services.
Short Name	FOR_PROFIT_PRISONS_OPER_SERV
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Appendix 1-P: Fur

MSCI ESG Research’s fur screen identifies companies involved in the production or retail of fur products.

Coverage Universe

Business Involvement Screening Research Fur coverage (FUR_COVERED).

Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

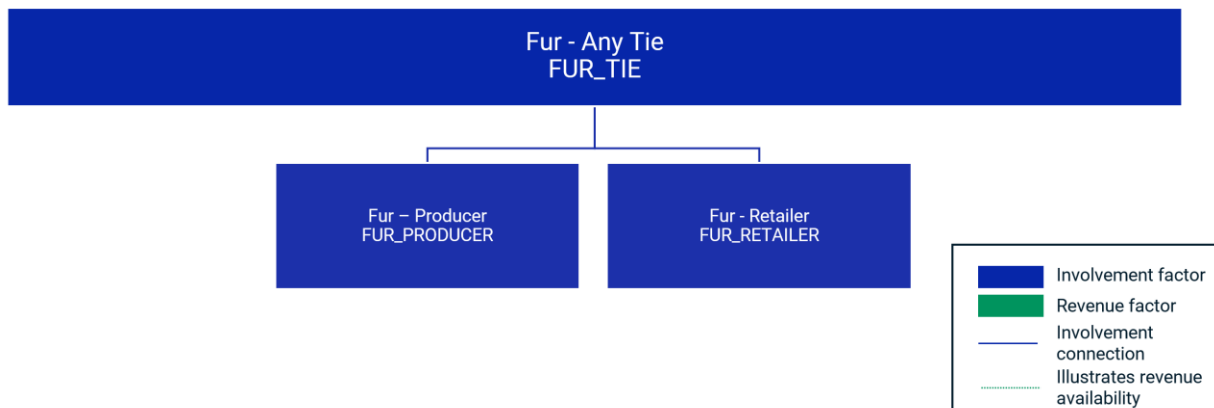
Definitions

MSCI ESG Research’s definition of fur includes all types of animal fur, including but not limited to, mink, chinchilla, rabbit, fox, shearling, sheepskin and astrakhan.¹¹ Leather is not included in the screen.

Exclusions

- Products that use leather;
- Products that use bird feathers; and
- Products that use animal hair, fur or wool produced from shearing or shaving.

Screening data points hierarchy



Activity specific involvement data points

Fur - Any Tie

Data point Description	Indicates whether the company is involved in the production or retail of fur pelts or products that use fur as a material, or is involved indirectly through ownership ties to companies involved in such products or services. The value is “True” if one or more of the underlying involvement factors is “True.”
Short Name	FUR_TIE

¹¹ Shearling is skin from a recently sheared sheep or lamb that has been tanned and dressed with the wool left on. Groups including the Fur Information Council of America consider shearling to be a type of fur. Astrakhan (also known as broadtail, Persian wool or karakul) is the fur of newborn and fetal karakul lambs.

Fur - Producer

Data point Description	Companies that produce fur pelt and products that use fur as a material. This data point also includes companies that hunt, raise or trap animals for their fur.
Short Name	FUR_PRODUCER
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> • Products that use all types of animal fur, including but not limited to, mink, chinchilla, rabbit, fox, shearling, sheepskin and astrakhan.
Specific Exclusions	<ul style="list-style-type: none"> • Products that use faux fur or leather.

Fur - Retailer

Data point Description	Companies that retail products that use fur as a material.
Short Name	FUR_RETAILER
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> • Products that use all types of animal fur, including but not limited to, mink, chinchilla, rabbit, fox, shearling, sheepskin and astrakhan.
Specific Exclusions	<ul style="list-style-type: none"> • Products that use faux fur or leather.

Appendix 1-Q: Gambling

MSCI ESG Research’s gambling research identifies companies that own or operate gambling facilities, license their brand name to gambling products, or provide support or services to the gambling industry. The research describes both the type of involvement and the revenue from that involvement.

Coverage Universe

Standard Business Involvement Screening Research coverage (BISR_COVERED).

Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

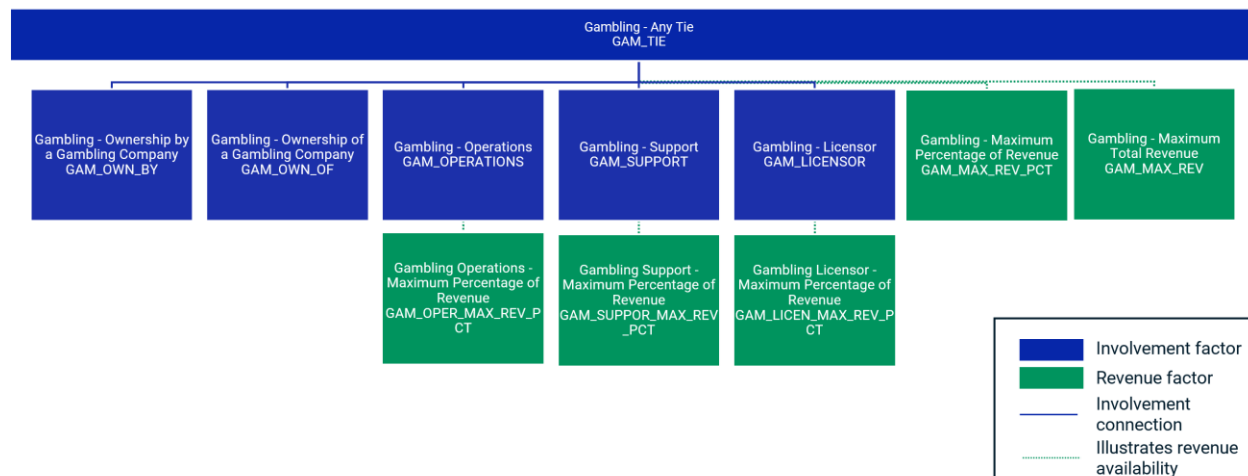
Definitions

Gambling is defined as the betting or staking of money or something of value, with consciousness of risk and hope of gain, on the outcome of a game, a contest or an event, the outcome of which is determined by chance.

Exclusions

- Companies that breed animals;
- Companies that manufacture dice, cards or chips;
- Companies retailing lottery tickets;
- Companies that operate carnivals;
- Companies that provide manpower services;
- Companies that provide third-party web hosting;
- Companies that provide lead generation;
- Companies that provide or sell data for gamblers;
- Companies that manufacture lottery ticket printing machines;
- Companies that offer online or mobile games of skill;
- Companies that are engaged in derivatives trading;
- Financial companies that provide personal credit lines to individuals for gambling purposes;
- Companies offering check-cashing services;
- Companies engaged in distribution of gambling machines; and
- Companies that produce only components of gambling machines, including but not limited to pachinko slot pieces, LCD screens and coin-counting devices.

Screening data points hierarchy



Activity specific involvement data points

Gambling - Any Tie

Data point Description	Indicates whether the company owns or operates gambling facilities, including online or mobile gambling, provides support services for gambling operations, licenses its brand name to gambling operations or products, or is involved indirectly through ownership ties to companies involved in such products, services, or activities. The value is “True” if one or more of the underlying involvement factors is “True.”
Short Name	GAM_TIE

Gambling - Operations

Data point Description	Companies that own or operate gambling facilities, online gambling websites, platforms, or mobile applications.
Short Name	GAM_OPERATIONS
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> Companies that own or operate gambling facilities such as casinos, racetracks, bingo parlors or other betting establishments, including horse, dog or other racing events that permit wagering; lottery operations; online gambling; fantasy sports that permit wagering; pari-mutuel wagering facilities; bingo; pachislot and pachinko parlors; slot machines; jai alai; mobile gambling; and sporting events that permit wagering.

Specific Exclusions	N/A
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Gambling - Support

Data point Description	Companies that provide products or support services fundamental to gambling operations.
Short Name	GAM_SUPPORT
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> • Companies that provide key products or services fundamental to gambling operations, including: <ul style="list-style-type: none"> – Products manufactured exclusively for gambling, such as slot machines, roulette wheels or lottery terminals. This also includes specialized dual-use products solely manufactured and used for casino operations, such as casino chips with RFID security technology, embedded microchips in playing cards, theft-proof devices in dice, etc.; gambling technology and support designed for gambling applications such as IT maintenance, software design, security or surveillance systems and lottery ticket printing services; gambling-related services such as credit lines and casino management and consultation; – Leasing of gambling machines and providing broadcasting services to sports events either to bookmakers, wagering hubs or homes. • Leasing of real estate intended for gambling activities. A real estate investment trust (REIT) is considered to provide support services if more than 50% of revenue or leasable area is attributed to gambling activities.
Specific Exclusions	<ul style="list-style-type: none"> • Companies that provide products or services solely support end users, rather than company gambling operations.

Gambling - Licensor

Data point Description	Companies that license their brand name to gambling products.
Short Name	GAM_LICENSOR

Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Appendix 1-R: Genetic Engineering

MSCI ESG Research’s genetic engineering research includes companies that genetically modify organisms (GMOs) for agricultural use or human consumption. The research describes both the type of involvement and the revenue from that involvement.

Coverage Universe

Standard Business Involvement Screening Research coverage (BISR_COVERED).

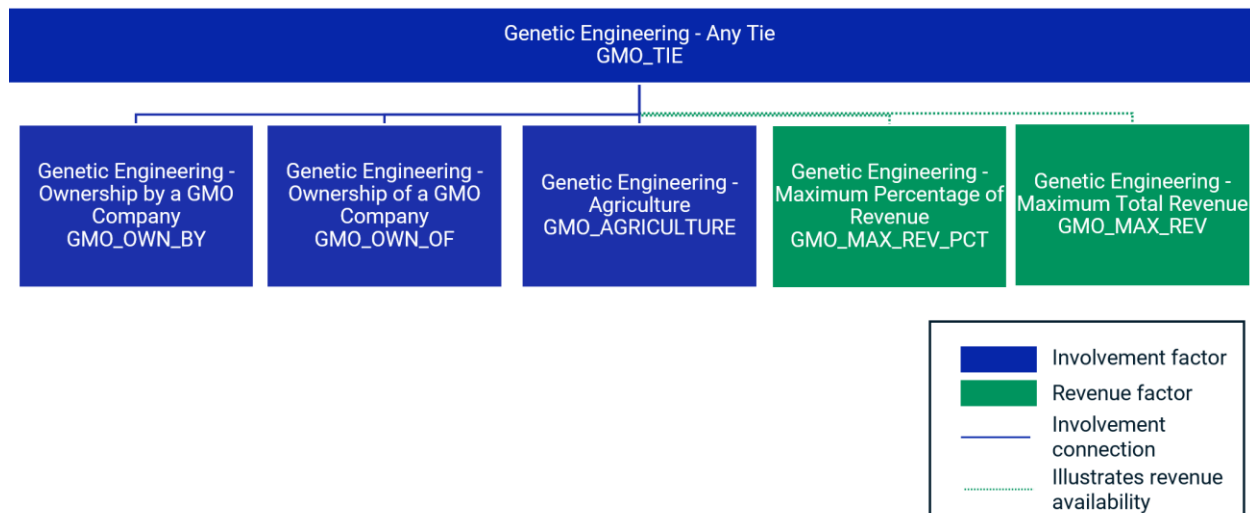
Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

Exclusions

- Pharmaceutical or other companies that conduct genetic modification research on DNA, T-cells or other microorganisms for medical purposes, also known as red and yellow genetic engineering;
- Companies that produce genetically modified organisms for use in industrial or chemical products not intended for human consumption, also known as white genetic engineering;
- Companies that are developing or producing biofuels from genetically engineered ingredients;
- Paper companies that own or operate genetically engineered tree plantations;
- Food processing companies that use genetically modified ingredients;
- Companies that contract out genetic engineering research to third parties;
- Companies that are only involved in providing services for GMO field testing, research and development; and
- Companies that only use GMOs in the production process and where the final product does not contain GMOs.

Screening data points hierarchy



Activity specific involvement data points

Genetic Engineering - Any Tie

Data point Description	Indicates whether the company is involved in genetic engineering or is involved indirectly through ownership ties to companies involved in genetic engineering. The value is “True” if one or more of the underlying involvement factors is “True.”
Short Name	GMO_TIE

Genetic Engineering - Agriculture

Data point Description	Companies that produce and sell genetically modify plants, such as seeds and crops, and other organisms intended for agricultural use or human consumption.
Short Name	GMO_AGRICULTURE
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> • Companies that have filed for a notification with the USDA’s Animal and Plant Health Inspection Service (APHIS) for field testing of organisms engineered to produce compounds intended for agricultural use; and • Companies included in the European Union (EU) – Food Safety Administration (EFSA) list that have applied for permits to market genetically engineered material for food or food additives in the EU.

Specific Exclusions	N/A
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Appendix 1-S: Hotels

MSCI ESG Research’s hotel research identifies publicly traded companies that own, operate, manages hotel as well real estate companies that lease out properties for use as hotels.

Coverage Universe

Islamic screen coverage universe (ISLAMIC_COVERED).

Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

Activity specific involvement data points

Hotels - Tie

Data point Description	Companies that own and operate real estate investment trusts that lease or rent, hotels, serviced apartments, and resorts that provide accommodations, as well as real estate investment trusts that lease or rent hotels.
Short Name	HOTELS_TIE
Additional Information	Hotels noted as Sharia compliant should not be flagged for involvement. Generally, hotels operating in Saudi Arabia are considered Sharia compliant. However, disclosures should still be screened to verify that the hotel does not offer any prohibited activities.
Specific Inclusions	<ul style="list-style-type: none"> Facilities that offer accommodations, including but not limited to inns, cottages, hotels, serviced apartments and resorts; Real Estate Investment Trusts (REITs); Airlines and railways that own or operate hotels; and If cruise lines and resorts operate hotels, then on-board accommodations are included.
Specific Exclusions	<ul style="list-style-type: none"> Hotels that operate in predominantly Islamic countries, such as Saudi Arabia and provided that no other prohibited activity/product (e.g., alcohol and tobacco) is offered in such hotel.

Appendix 1-T: Lending Practices and CRA Rating

MSCI ESG Research’s Lending Practices research is designed to identify companies involved in the provision of products and services associated with controversial lending practices, including payday loans, installment loans, pawn loans, title loans, tax-refund-anticipation loans and doorstep loans.

MSCI ESG Research provides a list of companies given a "Needs to improve" or "Substantial Noncompliance" rating under the Community Reinvestment Act (CRA) of the U.S. The CRA is intended to encourage depository institutions to help meet the credit needs of the communities in which they operate, including low- and moderate-income neighborhoods, consistent with safe and sound banking operations.

Coverage Universes

Lending Controversy Ties

Business Involvement Screening Research Lending Practices coverage (PREDATORY_LENDING_COVERED).

CRA Rating

Standard Business Involvement Screening Research coverage (BISR_COVERED).

Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

Definitions

Controversial lending practices are defined as those in which lenders take advantage of borrowers’ lack of understanding and/or lack of access to more-traditional financial services to impose loan terms that place a disproportionately and often untenably high burden on the borrower. This is often done through deception, fraud or manipulation via aggressive sales tactics.

Activity	Description
Title Loans	<ul style="list-style-type: none"> Advertised as not requiring credit score or credit reference check to qualify for loan. A lien is placed against the title of the vehicle, and in many cases the borrower must surrender their hard copy of the title to the lender. Loan is made on the estimated auction value of the vehicle, normally not to exceed 50% of this value. This is to ensure a profit if the borrower defaults.

	<ul style="list-style-type: none"> • If the loan is not repaid, the lender repossesses the borrower’s vehicle. • APRs can exceed 300%, but some U.S. states have placed limits on the APR of title loans.
<p>Logbook Loans</p>	<ul style="list-style-type: none"> • Advertised as not requiring credit score or credit reference check to qualify for loan. • Similar to a Title Loan except does not require a court order to repossess vehicle (the structure of the loan is that of a sale of the vehicle to the lender with the borrower retaining the use of the vehicle). • Loan is made on the vehicle’s value, normally not to exceed 50% of this value. • If the loan is not repaid, the lender repossesses the borrower’s vehicle. • APRs can exceed 300%.
<p>Rent to Own</p>	<ul style="list-style-type: none"> • Includes white goods or domestic appliances, electronics and furniture. This category does not include traditional vehicle and equipment leasing unless the money data point involved equates to an APR higher than 100%.
<p>Tax Refund Anticipation Loans (RALs)</p>	<ul style="list-style-type: none"> • Issues a cash advance (or other payment method including pre-paid debit cards) on the expected tax refund. • Fees and interest can equal 10% or more of the refund amount in order to get the refund a few weeks faster (as compared with direct deposit). • Including fees, APRs can exceed 100%.
<p>Doorstep Lending</p>	<ul style="list-style-type: none"> • Advertised as not requiring credit score or credit reference check to qualify for loan. • Loan is marketed directly to borrowers through in-person door-to-door agents. • Loan is normally of a short duration (< 1 year) with weekly payments collected in person by agents.
<p>Payday Loans</p>	<ul style="list-style-type: none"> • Advertised as not requiring credit score or credit reference check to qualify for loan. • Typically, the loan is an “advance” against a future payment to the borrower (such as a salary or benefit check). • The borrower leaves a negotiable instrument with the lender that is redeemed by the lender if they do not repay by the loan maturity date.
<p>Pawn Loans</p>	<ul style="list-style-type: none"> • Advertised as not requiring credit score or credit reference check to qualify for loan. • Loan is normally of a short duration (<90 days).

	<ul style="list-style-type: none"> • Borrower brings an item of value, and the pawn broker makes a loan based on a percentage of the retail value. • If the loan is not repaid, then the pawn broker takes ownership of the property.
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For a company to be flagged, a product or service does not need to meet all the above criteria. These descriptions are guidelines for what analysts look for.

Exclusions

- Automobile and equipment leasing;
- Check cashing services; and
- Gold loans provided by Indian-based financial institutions.

Lending Practices and CRA Rating supplementary sources

- FFIEC CRA Rating: <http://www.ffiec.gov/craratings/default.aspx>

Activity specific involvement data points

Please note that the Lending Practices screen does not have an Any Tie data point.

Lending Practices - Direct Link to Predatory Lending

Data point Description	Companies that provide products and services associated with certain controversial lending practice.
Short Name	PRED_LEND_DIRECT
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Lending Practices - CRA Rating

Data point Description	Financial institutions that received a rating of "Needs to improve" or "Substantial Noncompliance" after taking the Community Reinvestment Act (CRA) examination.
Short Name	PRED_LEND_CRA_RATING
Additional Information	The coverage universe for this research includes U.S. financial institutions that received a rating of "Needs to improve" or "Substantial Noncompliance" after taking the CRA examination within the last three years.

Specific Inclusions	<ul style="list-style-type: none"> This data point only identifies U.S.-based companies or international companies with U.S.-based banks or branches.
Specific Exclusions	N/A

Appendix 1-U: Military Weapons

MSCI ESG Research’s defense and weapons research identifies companies that manufacture conventional, nuclear, and controversial military weapons, systems, and components, and provide support services to those weapons, systems, components. MSCI ESG Research’s weapons research describes both the type of involvement and the revenue from that involvement, as well as distinguishes between involvement in whole weapons systems, components of those systems, and support services. The specific Military Weapons category will have different availability for involvement and revenue data points.

The following section is organized by four sections: Global Military Weapons, Conventional Weapons, Nuclear Weapons and Controversial Weapons.

Global Military Weapons: Includes several aggregate screens for conventional and certain controversial weapons. Full information can be found in the Global Military Weapons section.

Conventional Weapons: MSCI ESG Research classifies conventional weapons as Military Weapons that are not controversial weapons, which means that conventional weapons would typically not have the potential to cause excessive or indiscriminate harm, violate international norms, or mass destruction.

Nuclear Weapons: Weapons that use nuclear energy and reactions to cause an explosion. While there are international treaties and agreements regarding nuclear weapons, this category of weapon has designated screens to provide a more granular screen selection.

Controversial Weapons: Military weapons that have potential to cause excessive or indiscriminate harm, violate international norms, or mass destruction. These weapons are often subject to international treaties and agreements designed to limit their use, promote disarmament, and protect civilians from their effects.

Coverage Universe

Standard Business Involvement Screening Research coverage (BISR_COVERED).

Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓	✓	As needed	As needed

Definitions

Military Weapons: Categorical term that includes Conventional Weapons, Nuclear Weapons, and Controversial Weapons.

Nuclear Weapons: Weapons that use nuclear energy and reactions to cause an explosion. Includes atomic bombs and thermonuclear weapons.

Support System and Services: Collective term for weapon systems and services that enhance or enable the lethality of weapons.

Involvement and industry ties: Company participates in a business activity within the scope of the screen. Involvement in a screened activity require verifiable evidence of involvement from “Strong Evidence” sources, unless otherwise stated. Involvement and industry tie terminology are interchangeable.

Critical components: Component necessary for the proper function or performance of a piece of equipment, system, or service. Essential components to produce weapons. Activity exclusions and available disclosures can limit the scope of certain screens. MSCI ESG Research use the terms “critical” and “essential” interchangeably.

Key components: A chemical term, where chemical system key components are the precursors that play the most important role in the toxic properties of the final product and reacts quickly with other chemicals in the system. Key component terminology is used in biological and chemical weapon screens.

Developed or significantly modified components: Components that have been reconfigured, redesigned or remodeled so that it provides an added or a different functionality than the original one.

Evidence Types and Sources: A company’s involvement can be classified as Strong Evidence, Limited Evidence, or Reviewed and/or Past Involvement. This type of data point is unique for defense and weapon screens, specifically for landmines and cluster munitions.

- “Strong Evidence”:
 - A company’s involvement is clear and unambiguous based on primary sources vetted by MSCI ESG Research. These sources typically include company disclosure, government reports, and trade and specialized publications.
 - Time Frame: Three years without further proof of ongoing involvement from trusted sources.
- “Limited Evidence”:
 - A company’s involvement is based on sources vetted out by MSCI ESG Research.
 - A company’s involvement is from a publication that is over three years old, and the company has not provided evidence of noninvolvement. Evidence of noninvolvement includes a company’s public statement of noninvolvement or providing proof of cessation of involvement in the screened business activities.

- Time Frame: Indefinite.
- “Reviewed and/or Past Involvement”:
 - A company that has faced allegations of involvement but for which MSCI ESG Research has found compelling evidence of noninvolvement.
- Sources for company’s noninvolvement in the activities include direct confirmation from the company presenting proof of noninvolvement or cessation of activities, end of contract and government statements.
 - Time Frame: Indefinite
 - Companies that have been flagged with “Reviewed and/or Past Involvement” are not considered for the involvement screens.

Exclusions

There are general exclusions for the Military Weapons screens that cover Conventional Weapons, Nuclear Weapons, and Controversial Weapons. Additional activity specific involvement exclusions are provided in corresponding sections.

- Military uniforms and safety gear and equipment. This list includes but is not limited to:
 - Uniforms;
 - Gear and equipment that provide safety and other supporting functions for harm reduction;
 - Helmets, bulletproof vests and riot gear;
 - Parachutes and life rafts;
 - Safety masks;
 - Biological and chemical agent detectors;
 - NBC suits (Nuclear, Biological, Chemical); and
 - Hazmat protective suits.
- Supporting aircraft, ships and vehicles that do not contribute to the lethality of combat, battles or warfare. This list includes but is not limited to:
 - UAVs or drones used for non-military activities, commercial, scientific and/or personal activities. This also does not include UAVs or drones used for logistics or transportation of military materials and equipment;
 - Medical equipment and medical ships or helicopters;
 - Refueling aircraft; and
 - Logistics and transportation.
- Non-essential components of weapons systems or platforms. Items that are commonly used in everyday electronic and mechanical equipment and vehicles; they are not specific to military or weaponry use. Producers of components of components are also not included. This list includes but is not limited to:
 - manufacturers of steel alloys for use in armor;
 - aerodynamic designs/add-ons and environmental protection technology for military vehicles and aircraft;
 - cables, electrical wires, spark plugs, vehicle axles and pistons;

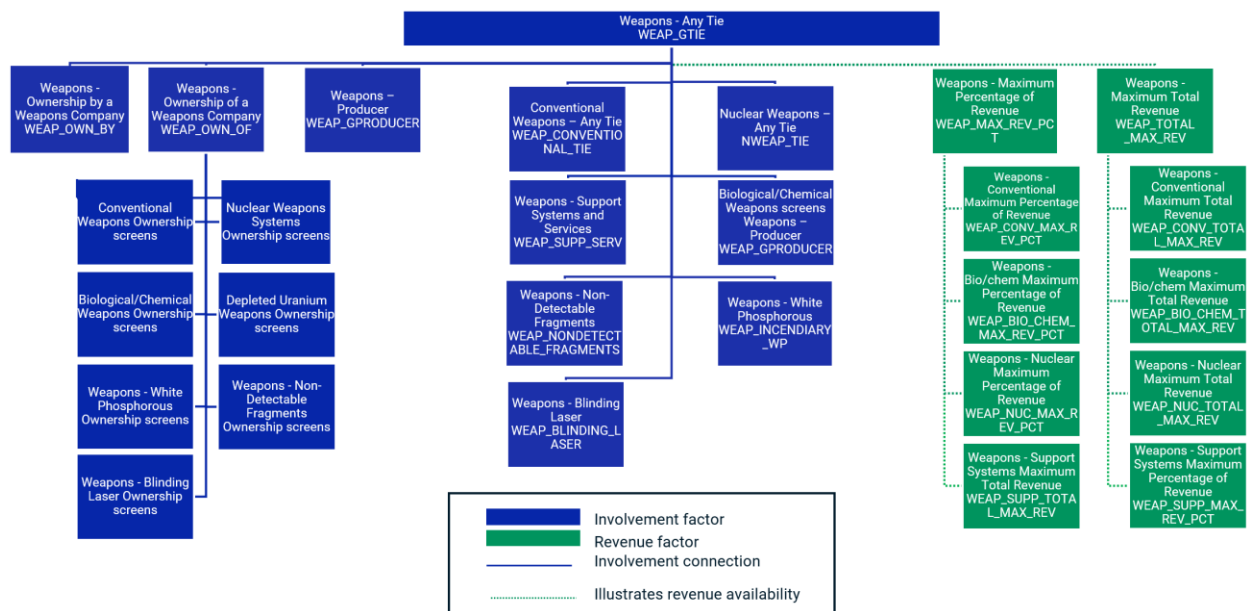
- vehicle batteries and other power sources; and
- mirrors, seats, carpets and other internal vehicle furniture and fixtures.
- Support Services that are not combat or warfare oriented. This includes but is not limited to:
 - military base construction;
 - defense, non-weapon related, infrastructure;
 - basic IT/telecommunications infrastructure and technical support;
 - supply-chain management services;
 - program management and support (including cost/acquisition support);
 - food services; and
 - refueling and paint jobs.
- Non-lethal and less-lethal weapons. This includes but is not limited to:
 - Pain rays;
 - Conducted energy weapons (CEW), also known as conducted energy devices (CED) and commonly called tasers; and
 - Rubber Bullets.
- Small-arms intended for government, civilian and law-enforcement.

Global Military Weapons

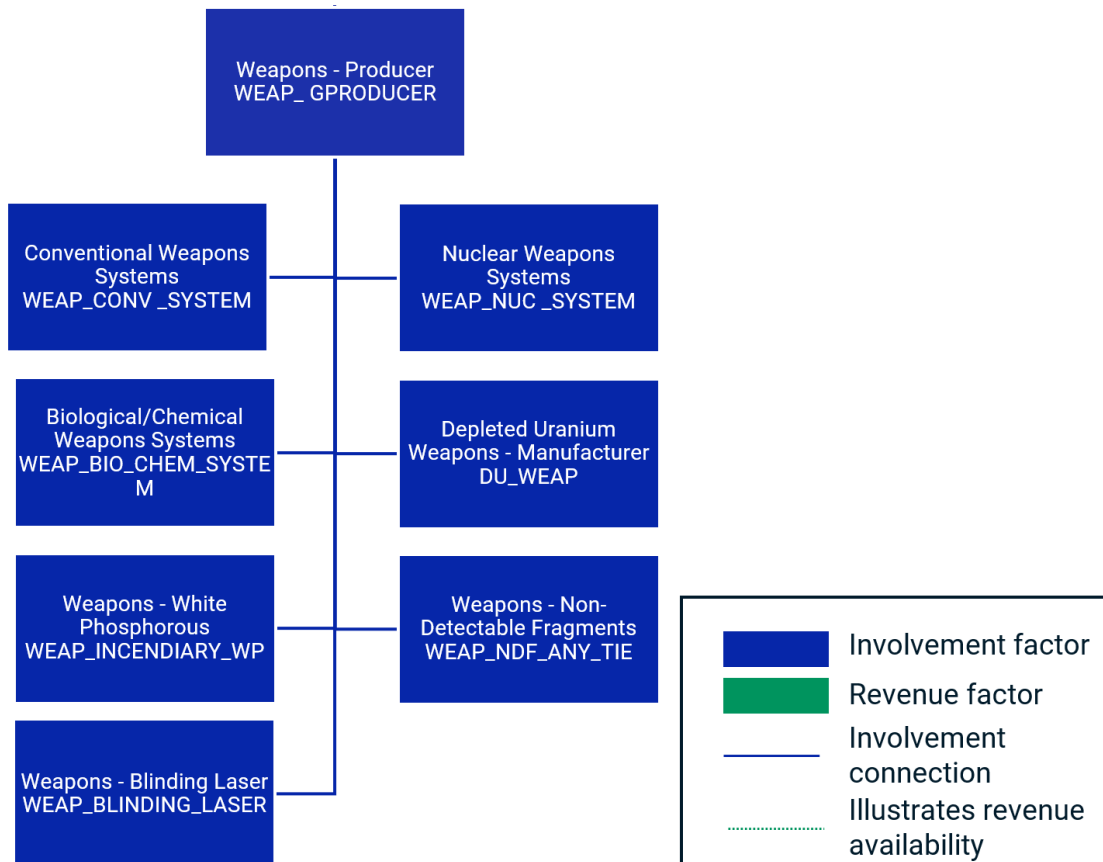
The Global Military Weapons segment contains an aggregation of data points that pull from Conventional Weapons, Nuclear Weapons and certain Controversial Weapons screens.

Screening data points hierarchy

Weapons - Any Tie



Weapons – Producer



Activity specific involvement data points

Weapons - Any Tie

<p>Data point Description</p>	<p>Indicates whether the company is involved in the production of conventional weapons, components for such products or support systems and services for such products; production of biological or chemical weapons, components for such products for such products; production of nuclear weapons, exclusive and dual-use delivery platform capable to delivery such products, intended and dual-use components of such products, services provided for such products; production of blinding laser, incendiary or non-detectable fragments weapons, or is involved indirectly through ownership ties to companies involved in such products or services. The value is “True” if one or more of the underlying involvement data points is “True.” Excludes companies involved in the production of whole weapon systems, delivery platforms or components of cluster munitions and the production of whole weapon systems or components of landmines.</p>
<p>Short Name</p>	<p>WEAP_GTIE</p>

Additional Information	This screen does not capture all weapon screens offered by MSCI ESG Research.
Specific Inclusions	<p>This data point includes screens for the following weapons activities:</p> <ul style="list-style-type: none"> • Conventional Weapons and Support System and Services; • Biological/Chemical; • Blinding Laser; • Incendiary (white phosphorus); • Non-Detectable Fragments; • Nuclear Weapons Systems, Components and Support Services; and • Ownership data points are included when available.
Specific Exclusions	<p>This data point excludes screens for the following weapons activities:</p> <ul style="list-style-type: none"> • Cluster Munition screens; and • Landmines screens

Weapons - Producer

Data point Description	Companies that produce conventional weapons, biological and chemical weapons, depleted uranium weapons or nuclear weapons. Excludes companies that produce components of weapons systems and support services and systems for such weapons.
Short Name	WEAP_GPRODUCER
Additional Information	This screen does not capture all weapon screens offered by MSCI ESG Research.
Specific Inclusions	<p>This data point includes weapon producer screens for the following weapons:</p> <ul style="list-style-type: none"> • Conventional Weapons; • Biological/Chemical; • Blinding Laser; • Incendiary (white phosphorus); • Non-Detectable Fragments; and • Nuclear Weapons Systems;
Specific Exclusions	<p>This data point includes weapon producer screens for the following weapons:</p> <ul style="list-style-type: none"> • Cluster Munition screens; and • Landmines screens

Weapons - Support Systems and Services

<p>Data point Description</p>	<p>Companies that provide weapons support and services, including research, development, testing and evaluation; analysis and planning; equipment maintenance, repair, and overhaul; systems support; weapons training and simulation systems and services.</p>
<p>Short Name</p>	<p>WEAP_SUPP_SERV</p>
<p>Additional Information</p>	<p>N/A</p>
<p>Specific Inclusions</p>	<ul style="list-style-type: none"> • Direct simulation, training, and testing; • Military communications systems and equipment that are in direct support of battlefield activities such as surveillance systems, C4ISR systems used in battlefield operations, intelligence systems that can be integrated and equipped to a weapon system; • Electro-optic systems; • Military planning/mission planning software; • Weapons control systems, especially for higher accuracy and fast targeting; • Navigation systems, including GPS and sonar systems and related equipment, and air-, land-, naval- and space-based radar systems; • Weapons and weapons systems research, development, testing and evaluation (RDTE); • Maintenance, repair & overhaul (MRO), spare parts and upgrades for weapons and weapons equipment. This category includes services for: <ul style="list-style-type: none"> – weapons platforms and supporting systems; – components of weapons; and – components of support systems; • Maintenance or management of nuclear weapon stockpiles; • Defense electronics systems and equipment, such as electronic warfare/jamming and related warning and countermeasure systems; and nuclear, biological or chemical (NBC) detection systems; • Weapon-specific night vision and other optical guidance and surveillance systems; • Communications systems and equipment that has the primary purpose of allowing elements of the armed forces to communicate with each other in direct support of battlefield activities. (This category does not include telecommunication companies that provide the military with

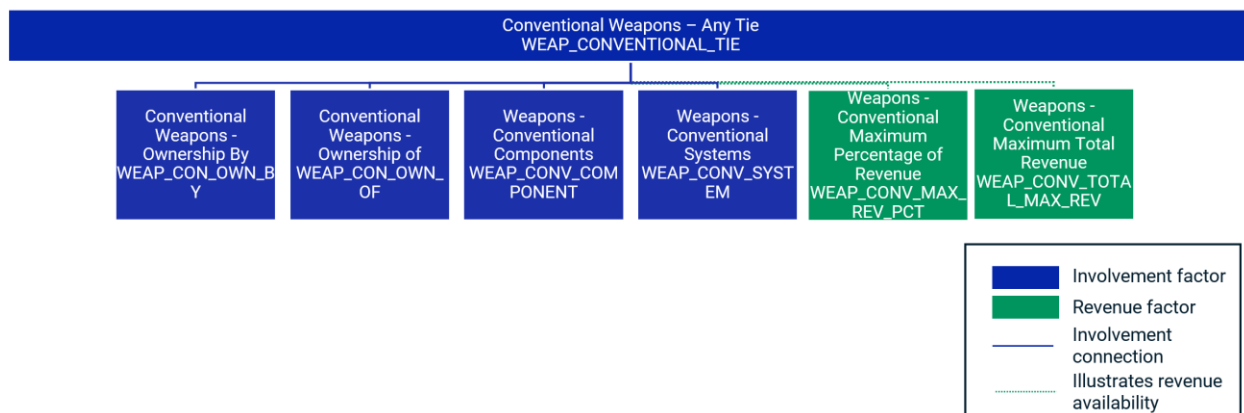
	<p>equipment such as telephones or routine telephone services for military installations). This category includes but is not limited to:</p> <ul style="list-style-type: none"> – air-, land-, naval- and space-based surveillance systems; – integrated communications, command, combat, computing, intelligence, surveillance and reconnaissance systems, more popularly known as C4ISR or any variation of such which are directly used for battlefield operations, including C&C, C3, C4, C2I, C3I, etc.; and – intelligence services (including intelligence-gathering, GPS and aerial imagery and geospatial services) that are designed for or can be used with a weapon system. <ul style="list-style-type: none"> • UAVs, drones, unmanned ground vehicles, unmanned underwater or surface vehicles and other robotics used by the military for gathering intelligence, surveillance and reconnaissance of enemy targets or locations; and coordinating armed forces and providing combat/battlefield support (command and control, communication, etc.); and • Highly specialized data processing equipment, such as supercomputers and software used in targeting, planning and war-gaming activities.
<p>Specific Exclusions</p>	<ul style="list-style-type: none"> • Support services for nuclear, cluster munitions, and landmines; • Support and services to simulation, training, and testing; • Components of military communications systems and equipment; • Data processing equipment (Processors) not intended for military weapon systems; • Avionics; and • Photodiodes.

Conventional Weapons

MSCI ESG Research classifies conventional weapons as Military Weapons that are not Controversial Weapons, which means that conventional weapons would typically not have the same potential to cause excessive or indiscriminate harm, violate international norms, or mass destruction.

For definitions and exclusions, see the Appendix 1-U: Military Weapons exclusions section.

Screening data points hierarchy



Activity specific involvement data points

Conventional Weapons – Any Tie

Data point Description	Indicates whether the company is involved in the production of conventional weapons, components for such products; or is involved indirectly through ownership ties to companies involved in such products. The value is “True” if one or more of the underlying involvement factors is “True.”
Short Name	WEAP_CONVENTIONAL_TIE

Weapons - Conventional Components

Data point Description	Companies that produce critical components for conventional weapons systems.
Short Name	WEAP_CONV_COMPONENT
Additional Information	Identifies companies that produce components that are significant to the weapon aspects of the weapon systems.
Specific Inclusions	<ul style="list-style-type: none"> • Propulsion, motors systems, and engines for strike vehicles, aircraft, and ships including locomotive equipment and systems, such as gearboxes and power transmission assemblies; • Propulsion, motor systems, and engines for conventional missiles, torpedoes, and other fire-and-forget projectiles; • Turbines for strike submarines; • Rotor blades; • Aerostructures, vehicle chassis, ship hulls, nacelles, and other major physical or structural component that make up the vehicle platform;

	<ul style="list-style-type: none"> • Major electronic hardware component sections of shoot-and-forget type projectiles, such as missiles and rockets; • Shells or ammunition canisters, as well as detonation systems for various ordnances; • Detonation systems include whole fuses and fusing systems or other triggering devices. • Fire control systems that are used as triggering and targeting mechanisms of weapon platforms like tanks, howitzers, naval guns, etc.; • Data processing equipment that states it is intended for military weapons systems (such as mine sweeping equipment, signals intelligence, radars and missile guidance), which can be processors and microchips; • Actuation systems if used for weapon systems; • Gyroscope if used on unmanned weapon systems (missiles, target drones, torpedoes); • Drivetrain, propulsion and transmissions systems; • Gearbox assemblies and gear assemblies; and • Air Compressors if used on weapons systems.
<p>Specific Exclusions</p>	<ul style="list-style-type: none"> • Components of components; • Small structures, such as windshields, wing and tails, wing and tail flaps and tips, cockpit panels, bulkhead midsection, and aircraft skins and skin panels; • Smaller parts, such as landing gear, arresting gear, brakes, clutches, and suspension; • Actuation systems if not used for weapon systems, such as doors, door locks, wheels, elevators; • Rotor cuff; • Cowls; • Flight control surfaces; • Structural inlet assemblies; • Engine components; • Pylon covers; • Data processing equipment not intended for military weapons systems, which can be processors and microchips; • Gyroscope if used on manned weapon systems;

	<ul style="list-style-type: none"> • Electronic circuit boards, amplifiers, transistors and resistors, hybrid circuits, printed circuit boards and connectors; • All power supply systems, including cables and wires; • Air Compressors if not used on weapons systems; • Valves, pumps, coupling systems, bearings, and tube assemblies; and • Components used in military weapon systems that are not intended for warfare.
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Weapons - Conventional Systems

Data point Description	Companies that produce conventional weapon systems intended for military markets.
Short Name	WEAP_CONV_SYSTEM
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> • Conventional projectile-firing weapons such as firearms, machine guns, rifles, shotguns, grenade launchers and other similar weapons used by the military; • Tactical, short- and long-range missiles, warheads, missile and rocket launchers; • Ammunition, grenades, explosive ordnances, mortars, anti-vehicle landmines; • Bombers, fighters, combat helicopters and attack aircraft; • Warships, battleships, submarines, battle cruisers, corvettes, landing craft, destroyers, frigates, mine hunters, minesweepers, flotillas and river craft; • Armored land vehicles such as tactical and assault tanks, main battle tanks, infantry fighting vehicles, howitzers and torpedoes; • Unmanned aerial vehicles (UAVs), drones, unmanned ground vehicles, unmanned underwater or surface vehicles and other robotics used by the military for striking at enemy targets or locations (armed); and • Depleted Uranium used for military purposes such as armor and armor-piercing projectiles.
Specific Exclusions	<ul style="list-style-type: none"> • Knives and other hand-held, non-explosive devices; • Conducted energy weapons (CEW), also known as conducted energy devices (CED) and commonly called tasers; and

	<ul style="list-style-type: none"> • Rubber bullets.
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Nuclear Weapons

MSCI ESG Research provides nuclear weapon screens separately from conventional weapons to allow investors to have more granular screen selection.

There are two international weapon treaties and conventions that cover nuclear weapons.

The Treaty on the Prohibition of Nuclear Weapons (TPNW) bans the use, possession, testing, and transfer of nuclear weapons under international law. As of December 2023, the TPNW has 93 signatories and 69 states parties¹².

The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) is an international treaty whose objective is to prevent the spread of nuclear weapons and weapons technology, to promote cooperation in the peaceful uses of nuclear energy and to further the goal of achieving nuclear disarmament and general and complete disarmament. As of December 2023, the NPT has 93 signatories and 191 states parties¹³.

Definitions

Nuclear Weapons are explosive devices that derive energy from nuclear fission and/or fusion of relatively small amounts of matter, such as enriched uranium and plutonium for atomic bombs (fission weapons) and deuterium and tritium for hydrogen bombs (fusion weapons). This type of weapon may come in the form of a bomb or a missile warhead.

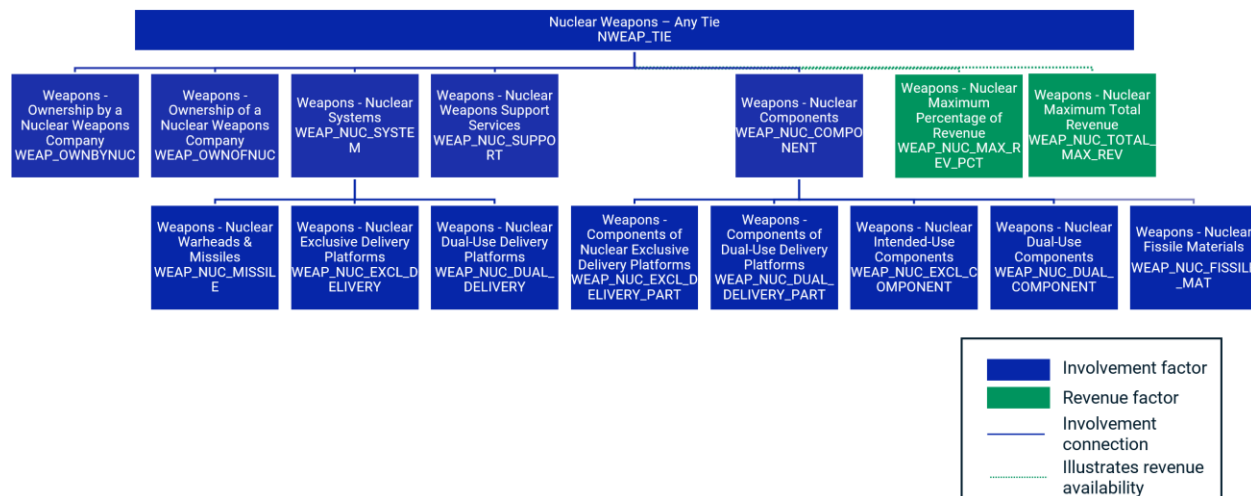
Exclusions

- Producers of rocket fuel that is used in nuclear weapons; and
- Dirty bombs: these do not use nuclear energy or reactions for their source of explosion, so they are excluded from nuclear weapon screens.

¹² <https://treaties.unoda.org/t/tpnw>

¹³ <https://treaties.unoda.org/t/npt>

Screening data points hierarchy



Activity specific involvement data points

Nuclear Weapons – Any Tie

Data point Description	Indicates whether the company is involved in the production of nuclear weapons, exclusive and dual-use delivery platform capable to delivery such products, intended and dual-use components of such products, services provided for such products, or is involved indirectly through ownership ties to companies involved in such products or services. The value is “True” if one or more of the underlying involvement factors is “True.”
Short Name	NWEAP_TIE

Weapons - Nuclear Systems

Data point Description	Companies that produce nuclear warheads, missiles, and delivery platforms capable of deploying nuclear weapons.
Short Name	WEAP_NUC_SYSTEM
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> • Nuclear warheads; • Intercontinental ballistic missiles and corresponding air- and land-based delivery platforms; and • Ballistic missile submarines capable of delivering nuclear warheads.

Specific Exclusions	N/A
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Weapons - Nuclear Warheads & Missiles

Data point Description	Companies that produce nuclear warheads or missiles.
Short Name	WEAP_NUC_MISSILE
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> • Companies that assemble and integrate warheads and missiles; and • Companies with contracts or joint ventures (JVs) to operate or manage government-owned facilities that manufacture nuclear warheads and missiles.
Specific Exclusions	N/A

Weapons - Nuclear Exclusive Delivery Platforms

Data point Description	Companies that produce delivery platforms exclusively for deploying nuclear weapons.
Short Name	WEAP_NUC_EXCL_DELIVERY
Additional Information	Nuclear exclusive weapon delivery platforms are only capable of using nuclear weapons.
Specific Inclusions	<ul style="list-style-type: none"> • Nuclear ballistic missiles and nuclear-capable submarines; • Ohio-class submarines; and • SSBN (ship, submersible, ballistic, nuclear).
Specific Exclusions	<ul style="list-style-type: none"> • Los Angeles-class submarines, or other nuclear-powered submarines that are not capable of firing nuclear missiles; and • SSN (ship, submersible, nuclear)

Weapons - Nuclear Dual-Use Delivery Platforms

Data point Description	Companies that produce delivery platforms capable of deploying nuclear weapons, but were not developed or significantly modified exclusively for such purpose.
Short Name	WEAP_NUC_DUAL_DELIVERY

Additional Information	If conventional weapon delivery platforms are capable of launching nuclear weapons, then they are also included in this screen.
Specific Inclusions	N/A
Specific Exclusions	N/A

Weapons - Nuclear Weapons Support Services

Data point Description	Companies that provide support services for nuclear weapons.
Short Name	WEAP_NUC_SUPPORT
Additional Information	Includes companies with contracts to operate/manage government-owned facilities that conduct R&D, testing, simulations, and other essential sciences on nuclear weapons.
Specific Inclusions	Companies that provide auxiliary services related to nuclear weapons, such as: <ul style="list-style-type: none"> • Repairing and maintaining nuclear weapons, providing overhaul and upgrade services, including engineering; • Stockpiling and stewardship of nuclear weapons; and • Conducting R&D work, testing and simulations for nuclear weapons.
Specific Exclusions	N/A

Weapons - Nuclear Components

Data point Description	Companies that produce essential intended or dual-use components for nuclear weapons and nuclear weapon delivery systems.
Short Name	WEAP_NUC_COMPONENT
Additional Information	MSCI ESG Research’s evaluation includes companies that are involved in joint ventures that operate or manage facilities that produce and/or store materials for nuclear weapons.
Specific Inclusions	Components that are used in nuclear weapons systems, including but not limited to: <ul style="list-style-type: none"> • Propulsion, motors systems, and engines of nuclear weapons and delivery platforms; • gearboxes and power transmission assemblies; • Propulsion, motor systems, and engines for nuclear weapons;

	<ul style="list-style-type: none"> • Turbines for nuclear capable submarines; • Rotor blades; • Aerostructures, vehicle chassis, ship hulls, nacelles, and other major physical or structural component that make up the vehicle platform; • Major electronic hardware component sections of shoot-and-forget type projectiles for nuclear weapons systems; • Shells or ammunition canisters, as well as detonation systems for nuclear weapons; • Detonation systems include whole fuses and fusing systems or other triggering devices. • Fire control systems that are used as triggering and targeting mechanisms of nuclear weapon platforms; • Data processing equipment that states it is intended for military nuclear weapons systems (such as radars and missile guidance), which can be processors and microchips; • Actuation systems if used for nuclear weapon systems; • Gyroscope if used on unmanned nuclear weapon systems (missiles, target drones, torpedoes); • Drivetrain, propulsion and transmissions systems; • Gearbox assemblies and gear assemblies; • Air Compressors if used on weapons systems; • Conventional rockets, missiles, aircraft, bombers, and naval vessels that can be fitted with either conventional or nuclear weapons; • Physical structural components of nuclear weapon platforms, such as aerostructures, submarine hulls, and rocket or missile bodies; • Other major components of weapon platforms that can carry or launch or deliver nuclear warheads or weapons; • Includes companies involved in the production and/or storage of fissile materials used in nuclear weapons;
<p>Specific Exclusions</p>	<ul style="list-style-type: none"> • Components of components¹⁴; • Small structures, such as windshields, wing and tails, wing and tail flaps and tips, cockpit panels, bulkhead midsection, and aircraft skins and skin panels;

¹⁴ Certain components of components may be eligible for screen inclusion if the primary sources indicate the intention of the components are for use in nuclear weapons.

	<ul style="list-style-type: none"> • Smaller parts, such as landing gear, arresting gear, brakes, clutches, and suspension; • Actuation systems if not used for nuclear weapon systems, such as doors, door locks, wheels, elevators; • Rotor cuff; • Cowls; • Flight control surfaces; • Structural inlet assemblies; • Engine components; • Pylon covers; • Data processing equipment not intended for nuclear military weapons systems, which can be processors and microchips; • Gyroscope if used on manned weapon systems; • Electronic circuit boards, amplifiers, transistors and resistors, hybrid circuits, printed circuit boards and connectors; • All power supply systems, including cables and wires; • Air compressors if not used on nuclear weapons systems; • Valves, pumps, coupling systems, bearings, and tube assemblies; • Components used by the military weapon systems that are not intended for warfare; and • Companies that mine uranium or use depleted uranium for weapons production.
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Weapons - Nuclear Fissile Materials

Data point Description	Companies involved in the production, storage, processing or supply of fissile materials used for nuclear weapons.
Short Name	WEAP_NUC_FISSILE_MAT
Additional Information	<p>Includes companies that are involved in joint ventures that operate or manage facilities that produce, store, process, and/or supply nuclear fissile materials.</p> <p>Fissile materials are elements that "can sustain an explosive fission chain reaction" and "are essential in all nuclear explosives." The most common in use are highly enriched uranium (HEU) and plutonium.</p> <p>Please note that companies flagged for Weapons - Nuclear Fissile Materials</p>

	may also be flagged for other Nuclear Weapons screens based on type of involvement.
Specific Inclusions	<ul style="list-style-type: none"> • Uranium-233 and uranium 235; and • Plutonium-239.
Specific Exclusions	<ul style="list-style-type: none"> • Companies that mine uranium or use depleted uranium for weapons production.

Weapons - Components of Nuclear Exclusive Delivery Platforms

Data point Description	Companies that produce essential components for delivery platforms exclusively for deploying nuclear weapons.
Short Name	WEAP_NUC_EXCL_DELIVERY_PART
Additional Information	Nuclear exclusive weapon delivery platforms are only capable of using nuclear weapons. This data point captures companies involved in the manufacturing or assembly of the essential components that go into those nuclear exclusive weapon delivery platforms.
Specific Inclusions	<ul style="list-style-type: none"> • Includes, but not limited to propulsion or motor engines for nuclear ballistic missiles and hulls for nuclear ballistic missile submarines.
Specific Exclusions	N/A

Weapons - Components of Dual-Use Delivery Platforms

Data point Description	Companies that produce essential components for delivery platforms capable of deploying nuclear weapons, but were not developed or significantly modified exclusively for such purpose.
Short Name	WEAP_NUC_DUAL_DELIVERY_PART
Additional Information	Nuclear dual-use weapon delivery platforms are capable of using nuclear weapons along with other types of military weapons. This data point captures companies involved in the manufacturing or assembly of the essential components that go into those nuclear dual-use weapon delivery platforms.
Specific Inclusions	N/A
Specific Exclusions	N/A

Weapons - Nuclear Intended-Use Components

Data point Description	Companies that produce essential components developed or significantly modified for exclusive use in nuclear weapons.
Short Name	WEAP_NUC_EXCL_COMPONENT
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> Includes companies with contracts to operate/manage government-owned facilities that manufacture components for nuclear warheads and missiles, such as fissile and fusion materials, non-nuclear components, explosives, triggers and detonators.
Specific Exclusions	N/A

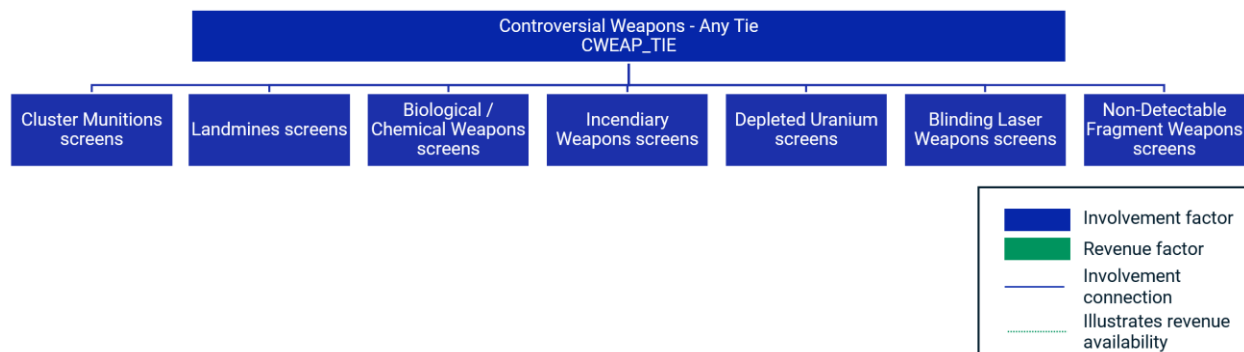
Weapons - Nuclear Dual-Use Components

Data point Description	Companies that produce essential components that could be used for nuclear weapons, but were not developed or significantly modified exclusively for such purpose.
Short Name	WEAP_NUC_DUAL_COMPONENT
Additional Information	These components can be used in both nuclear and other military weapons.
Specific Inclusions	N/A
Specific Exclusions	N/A

Controversial Weapons

Military weapons that have potential to cause excessive or indiscriminate harm, violate international norms, or mass destruction. These weapons are often subject to international treaties and agreements designed to limit their use, promote disarmament, and protect civilians from their effects.

Screening data points hierarchy



Controversial Weapons - Any Tie

<p>Data point Description</p>	<p>Indicates whether the company is involved in the production of whole weapon systems, delivery platforms or components of cluster munitions; production of whole weapon systems or components of landmines and biological or chemical weapons; production of depleted uranium weapons, blinding laser weapons, incendiary weapons, or weapons with non-detectable fragments; or is involved indirectly through ownership ties to companies involved in such products. Nuclear weapons are not considered for this screen. The value is “True” if one or more of the underlying involvement factors is “True.”</p>
<p>Short Name</p>	<p>CWEAP_TIE</p>

Biological and Chemical Weapons

While biological and chemical weapons are distinct, MSCI ESG Research combines these types of weapons into a singular screened activity. Each weapon has an international weapon ban convention that bans the development, production, acquisition, stockpiling, transfer of the weapons to anyone. The conventions also ban the use and engagement in any military preparations to use the weapons.

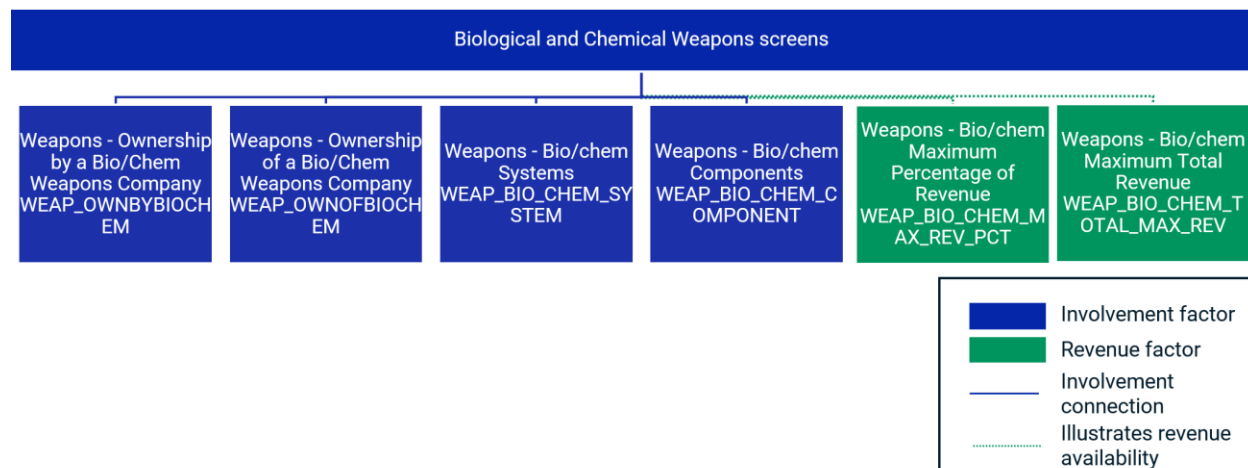
Biological Weapons Convention: As of December 2023, the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction (The Biological Weapons Convention) has been adopted by 109 signatories and 185 state parties¹⁵.

Chemical Weapons Convention: As of December 2023, Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (Chemical Weapons Convention) has been adopted by 193 signatories and 165 state parties¹⁶.

¹⁵ <https://treaties.unoda.org/t/bwc>

¹⁶ <https://treaties.unoda.org/t/cwc>

Screening data points hierarchy



Please note that the biological and chemical weapons screen does not have an Any Tie data point.

Activity specific involvement data points

Weapons - Bio/chem Systems

Data point Description	Companies that produce biological or chemical weapons systems.
Short Name	WEAP_BIO_CHEM_SYSTEM
Additional Information	Companies that manufacture biological or chemical weapons, which are defined as weapons that use pathogens such as viruses, bacteria and disease-causing biological agents, toxins or chemical substances that have toxic properties that kill, injure or incapacitate.
Specific Inclusions	This includes but is not limited to: <ul style="list-style-type: none"> • Biological weapon agents such as anthrax, Ebola, Marburg virus, tularemia, brucellosis, Q fever, Bolivian hemorrhagic fever, smallpox, coccidioides mycosis, glanders, melioidosis, shigella, psittacosis and Japanese B encephalitis; • Toxins or agents used in biological or chemical weapons such as ricin, SEB, botulism toxin, saxitoxin and mycotoxins; and • Chemical weapon agents (CWA), such as: <ul style="list-style-type: none"> – blood agents, including cyanogens, chloride and hydrogen cyanide; – blister agents, including ethyldichloroarsine, sulfur and nitrogen mustard gas and methyldichloroarsine; – nerve agents, including tabun (GA), sarin (GB), soman and cyclosarin;

	<ul style="list-style-type: none"> - pulmonary agents, including chlorine, chloropicrin and phosgene; and - incapacitating agents, including Agent 15, EA-3167 and Kolokol-1.
Specific Exclusions	N/A

Weapons - Bio/chem Components

Data point Description	Companies that produce critical components for biological and chemical weapons systems.
Short Name	WEAP_BIO_CHEM_COMPONENT
Additional Information	May include components found in conventional weapons systems that are also capable of carrying chemical or biological weapons.
Specific Inclusions	<p>Components that are used in biological and chemical weapons systems, including but not limited to:</p> <ul style="list-style-type: none"> • Propulsion, motors systems, and engines of biological and chemical weapons and delivery platforms; • gearboxes and power transmission assemblies; • Propulsion, motor systems, and engines for biological and chemical weapons systems; • Rotor blades; • Aerostructures, vehicle chassis, ship hulls, nacelles, and other major physical or structural component that make up the vehicle platform; • Major electronic hardware component sections of shoot-and-forget type projectiles for biological and chemical weapons systems; • Detonation systems for biological and chemical weapons; • Fire control systems that are used as triggering and targeting mechanisms of biological and chemical weapon platforms; • Data processing equipment that states it is intended for military biological and chemical weapons systems (such as radars and missile guidance), which can be processors and microchips; • Actuation systems if used for biological and chemical weapon systems; • Gyroscope if used on unmanned biological and chemical weapon systems; • Drivetrain, propulsion and transmissions systems;

	<ul style="list-style-type: none"> • Gearbox assemblies and gear assemblies; • Air Compressors if used on weapons systems; • Conventional rockets, missiles, aircraft, bombers, and naval vessels that can be fitted with either conventional or biological and chemical weapons; • Physical structural components of biological and chemical weapon platforms; and • Other major components of weapon platforms that can carry or launch or deliver biological and chemical weapons.
<p>Specific Exclusions</p>	<ul style="list-style-type: none"> • Components of components; • Small structures, such as windshields, wing and tails, wing and tail flaps and tips, cockpit panels, bulkhead midsection, and aircraft skins and skin panels; • Smaller parts, such as landing gear, arresting gear, brakes, clutches, and suspension; • Actuation systems if not used for nuclear weapon systems, such as doors, door locks, wheels, elevators; • Rotor cuff; • Cowls; • Flight control surfaces; • Structural inlet assemblies; • Engine components; • Pylon covers; • Data processing equipment not intended for biological and chemical weapons systems, which can be processors and microchips; • Gyroscope if used on manned weapon systems; • Electronic circuit boards, amplifiers, transistors and resistors, hybrid circuits, printed circuit boards and connectors; • All power supply systems, including cables and wires; • Air compressors if not used on biological and chemical weapons systems; • Valves, pumps, coupling systems, bearings, and tube assemblies; and • Components used by the military weapon systems that are not intended for warfare.

Blinding Laser Weapons

MSCI ESG Research's Blinding Laser weapons screen identifies companies involved in the production of weapons using laser technology that causes permanent blindness to the target.

Blinding lasers are designed to cause temporary or permanent blindness. These can include high-intensity laser diodes or laser systems that emit concentrated beams of light.

As of December 2023, the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects, Protocol IV on Blinding Laser Weapons has been adopted by 110 state parties¹⁷.

Activity specific involvement data points

Weapons - Blinding Laser

Data point Description	Companies that produce blinding laser weapons, that cause permanent blindness to the target.
Short Name	WEAP_BLINDING_LASER
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	<ul style="list-style-type: none"> • Components of blinding laser weapons; and • Laser weapons that temporarily cause blindness, destroy the target or cause burns.

Incendiary Weapons

MSCI ESG Research's Incendiary Weapons screen identifies companies involved in the production of incendiary weapons that use white phosphorus.

Incendiary weapons are weapons designed to start fires, causing damage through the heat and flames they produce. White phosphorus is a chemical compound (P₄) that ignites spontaneously and burns at extreme temperatures.

As of December 2023, the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects, Protocol III on the Use of Incendiary Weapons has been adopted by 116 state parties¹⁸.

¹⁷ <https://treaties.unoda.org/t/ccw>

¹⁸ <https://treaties.unoda.org/t/ccw>

Activity specific involvement data points

Weapons - White Phosphorous

Data point Description	Companies that produce incendiary weapons using white phosphorus.
Short Name	WEAP_INCENDIARY_WP
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	<ul style="list-style-type: none"> • White phosphorous smokescreens and illuminators, tracers, chafes and flares; • Manufacturers of components of incendiary weapons, including producers of chemicals like white phosphorus; and • Components of incendiary non-weapons munitions that happen to use white phosphorus. These include but are not limited to: <ul style="list-style-type: none"> – Smokescreens and illuminators; – Tracers; and – Chafes, flares, etc.

Depleted Uranium Weapons

MSCI ESG Research’s Depleted Uranium screens identifies companies that manufacture weapons, ammunition and armor made with Depleted Uranium (DU) and DU alloys.

DU is a byproduct of the uranium-enrichment process used to make nuclear weapons and nuclear-reactor fuel. The U.S. Nuclear Regulatory Commission defines depleted uranium as uranium whose percentage fraction by weight of the U-235 isotope is less than 0.711%.

As of December 2023, there are no well-adopted international conventions that ban depleted uranium weapons.

Exclusions

- Companies that own/operate nuclear fuel enrichment or fabrication facilities;
- DU ammunition delivery platforms, such as aircraft, helicopters, tanks, artillery, kinetic energy platforms and guns

Activity specific involvement data points

Weapons - Depleted Uranium Manufacturer

Data point Description	Companies involved in the production of depleted uranium weapons, ammunition and armor.
Short Name	DU_WEAP
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> • Armor piercing, fin-stabilized, discarding sabot tracer rounds (APFSDS-T); • Kinetic Energy Missiles made with DU penetrators; and • DU-enhanced armor, including composite tank armor.
Specific Exclusions	<ul style="list-style-type: none"> • Components of depleted uranium weapons, ammunition and armor; • Delivery platforms, such as tanks, aircraft, and submarines or ships; and • Components of delivery platforms.

Non-Detectable Fragment Weapons

MSCI ESG Research's Non-Detectable Fragments Weapons screen identifies companies involved in the production of weapons that use non-detectable fragments. Non-Detectable Fragments Weapons are defined as any weapon with a primary effect to injure with fragments that cannot be detected by X-rays once inside the human body.

As of December 2023, the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects, Protocol I on Non-Detectable Fragments has been adopted by 120 state parties¹⁹.

Activity specific involvement data points

Weapons - Non-Detectable Fragments

Data point Description	Companies that produce weapons that use non-detectable fragments.
Short Name	WEAP_NONDETECTABLE_FRAGMENTS
Additional Information	N/A
Specific Inclusions	N/A

¹⁹ <https://treaties.unoda.org/t/ccw>

Specific Exclusions	<ul style="list-style-type: none"> Manufacturers of components of weapons that use non-detectable fragments.
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Cluster Munitions

MSCI ESG Research's Cluster Munitions screen identifies companies involved in the production of cluster munitions, components and delivery platforms. The research may also include select significant or notable private companies.

As of December 2023, the Convention on Cluster Munitions (Oslo Convention) has been adopted by 108 signatories and 112 state parties²⁰.

Definitions

MSCI ESG Research incorporates the following definitions:

- **Cluster munition:** a bomb, missile, rocket or shell that carries submunitions and disperses them over an area.
- **Submunition:** a small bomb contained with other submunitions in a cluster munition. The submunition is designed to detonate prior to, on or after impact.
- **Cluster munition component:** an integral part to the basic function of a cluster munition weapon system. It may also provide added lethality, precision or other functionalities, such as targeting, guidance and navigation.
- **Cluster munition delivery platform:** an independent weapons system capable of carrying and deploying cluster munitions to the designated target area. Delivery platforms can include self-propelled rocket launcher systems and aircraft.

MSCI ESG Research considers a component to be significantly modified if it has been reconfigured, redesigned or remodeled so that it provides an added or different functionality than the original one.

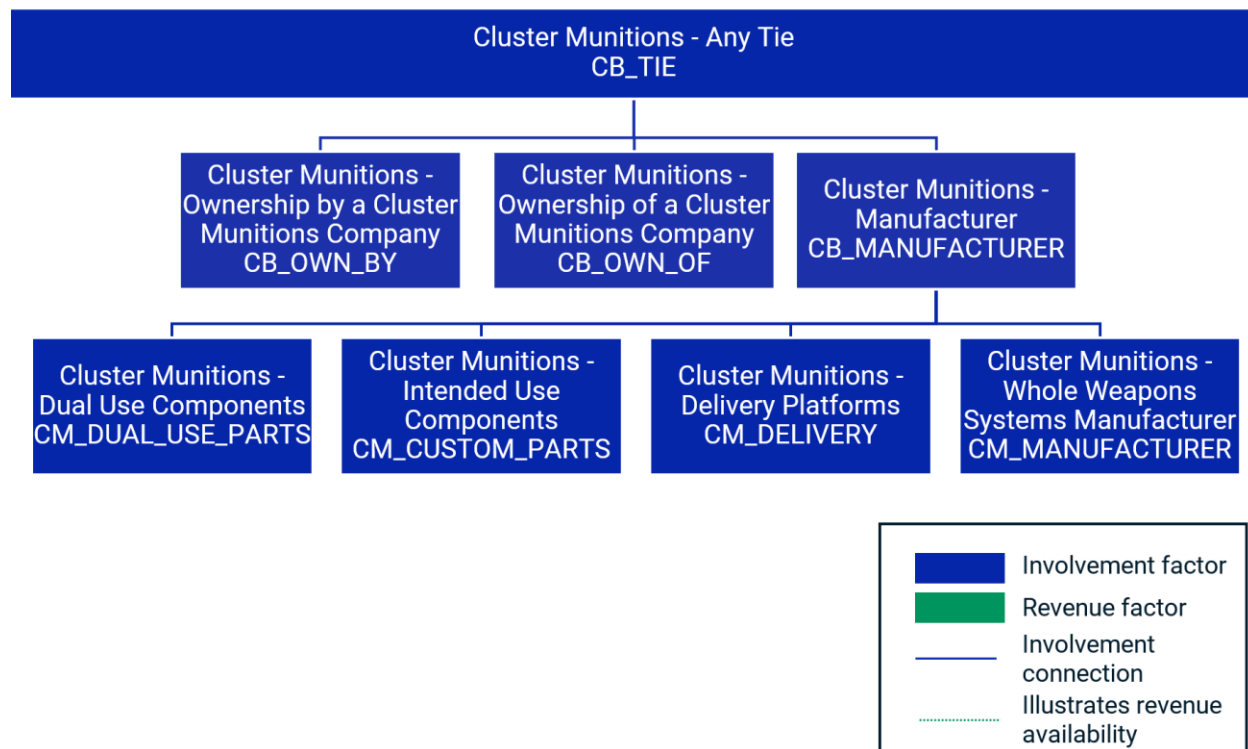
Exclusions

- Components of delivery platforms, such as the truck or chassis on which the launchers are mounted. MSCI ESG Research considers this tie as incidental because it is far removed from direct involvement in cluster munitions;
- Anti-electrical Cluster Munitions that are used to disrupt and damage electrical power transmission systems or electric power substations. Anti-electrical Cluster Munitions that do not contain explosives and are not directly harmful to either soldiers or civilians;
- Cluster Munitions that only distribute leaflets or propaganda materials and do not include explosives;
- Alternative cluster munition warheads, such as flechettes or steel rods;
- Intermediary components or raw materials, such as chemicals or the metal used in canisters;

²⁰ https://treaties.unoda.org/t/cluster_munitions

- Minor or common components, such as cables, wirings, bolts, nuts, etc., present in almost all electronic or mechanical equipment and devices; and
- Financial entities or banks that own less than 50% of cluster munition companies.

Screening data points hierarchy



Activity specific involvement data points

Cluster Munitions - Any Tie

Data point Description	Indicates whether the company is involved in the production of cluster munitions, components for such products, or is involved indirectly through ownership ties to companies involved in production of such goods. Cluster Munitions - Smart Weapon is excluded from Cluster Munitions - Any Tie. The value is “True” if one or more of the underlying involvement factors is “True.”
Short Name	CB_TIE

Cluster Munitions - Manufacturer

Data point Description	Companies that produce cluster munitions whole weapons systems, intended-use components, dual-use components, or delivery platforms.
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Short Name	CB_MANUFACTURER
Additional Information	N/A
Specific Inclusions	All types of cluster munitions that scatter submunitions, such as anti-personnel, anti-vehicle, anti-materiel, mine-laying cluster bombs and hybrids or mixed types.
Specific Exclusions	N/A

Cluster Munitions - Dual Use Components

Data point Description	Companies that produce essential components used in cluster munitions that were not developed or are not significantly modified for exclusive use in cluster munitions.
Short Name	CM_DUAL_USE_PARTS
Additional Information	Dual-use components, defined as parts that were not developed or are not significantly modified for exclusive use in cluster munitions. These products can be used in a variety of other weapons, such as fuses used in non-cluster munition missiles.
Specific Inclusions	<ul style="list-style-type: none"> • These include, but are not limited to: <ul style="list-style-type: none"> ○ Any of the components listed above that were not developed solely for cluster munitions or not significantly modified; ○ Multi-purpose munitions dispensers; ○ Fuses and arming devices; and ○ Rockets or missiles that can be fitted with various types of warheads.
Specific Exclusions	N/A

Cluster Munitions - Intended Use Components

Data point Description	Companies that produce essential components that were developed or are significantly modified for exclusive use in cluster munitions.
Short Name	CM_CUSTOM_PARTS
Additional Information	Customized components, defined as parts that were developed or are significantly modified for exclusive use in cluster munitions.
Specific Inclusions	<ul style="list-style-type: none"> • These include, but are not limited to: <ul style="list-style-type: none"> ○ Munitions dispensers also sometimes called canisters, that can only contain/carry cluster munitions;

	<ul style="list-style-type: none"> ○ Submunitions, munitions or explosives; ○ Targeting or tracking systems integrated into the weapon system; ○ Rocket motors of dispensers/submunitions; ○ Fuses and triggering mechanisms developed for cluster munitions or significantly modified to be used in cluster munitions; and ○ Rockets or missiles designed to carry cluster munitions in their warheads.
Specific Exclusions	N/A

Cluster Munitions - Delivery Platforms

Data point Description	Companies that produce weapon platforms capable of carrying and deploying cluster munitions to the designated target area.
Short Name	CM_DELIVERY
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Cluster Munitions - Whole Weapons Systems Manufacturer

Data point Description	Companies that produce cluster munitions whole-weapons systems.
Short Name	CM_MANUFACTURER
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Cluster Munitions - Smart Weapon

Data point Description	Companies that exclusively produce "smart" cluster munitions or components for exclusive use in "smart" cluster munitions. Smart cluster munitions have technological improvements that minimize the danger and harm to non-combatants.
Short Name	CM_SMARTWEAPON
Additional Information	<p>This data point is not included in the cluster munition any tie data point.</p> <p>"Smart" cluster munition weapons have all the following characteristics:</p> <ul style="list-style-type: none"> • Submunitions (or equivalent thereof) can individually locate and acquire targets; • Submunitions have a self-destruct mechanism if no targets are acquired; and • Submunitions also have a self-deactivation mechanism in addition to or as an alternative to the self-destruct mechanism.
Specific Inclusions	<ul style="list-style-type: none"> • Only companies that exclusively manufacture "smart" cluster munitions are included.
Specific Exclusions	<ul style="list-style-type: none"> • If the company manufacturer non- "smart" cluster munitions, then they are excluded.

Cluster Munitions - Reviewed and/or Past Involvement

Data point Description	Indicates unconfirmed public allegations of involvement or past involvement of the company in the production of cluster munitions whole weapons systems, intended-use components, dual-use components, or delivery platforms.
Short Name	CB_REVIEWED

Landmines

MSCI ESG Research's landmines screen identifies companies involved in the production of anti-personnel landmines (APMs) and anti-vehicle landmines (AVMs) whole systems, components and delivery platforms. The research may include select significant or notable private companies.

As of December 2023, the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction (Ottawa Treaty) been adopted by 133 signatories and 164 state parties²¹.

²¹ https://treaties.unoda.org/t/mine_ban

Definitions

Anti-Personnel Landmines (APMs): Munitions that are placed under, on or near the ground or other surface area and explodes by the presence, proximity or contact with a person or upon command by an operator from a remote location. Includes alternative munition systems that fulfill the same role and purpose as anti-personnel landmines.

Anti-Vehicle Landmines (AVMs): Munitions that are placed under, on, or near the ground or other surface area and explodes by the presence, proximity, or contact with a vehicle or upon command by an operator from a remote location. Includes alternative munition systems that fulfill the same role and purpose as Anti-Vehicle Landmines.

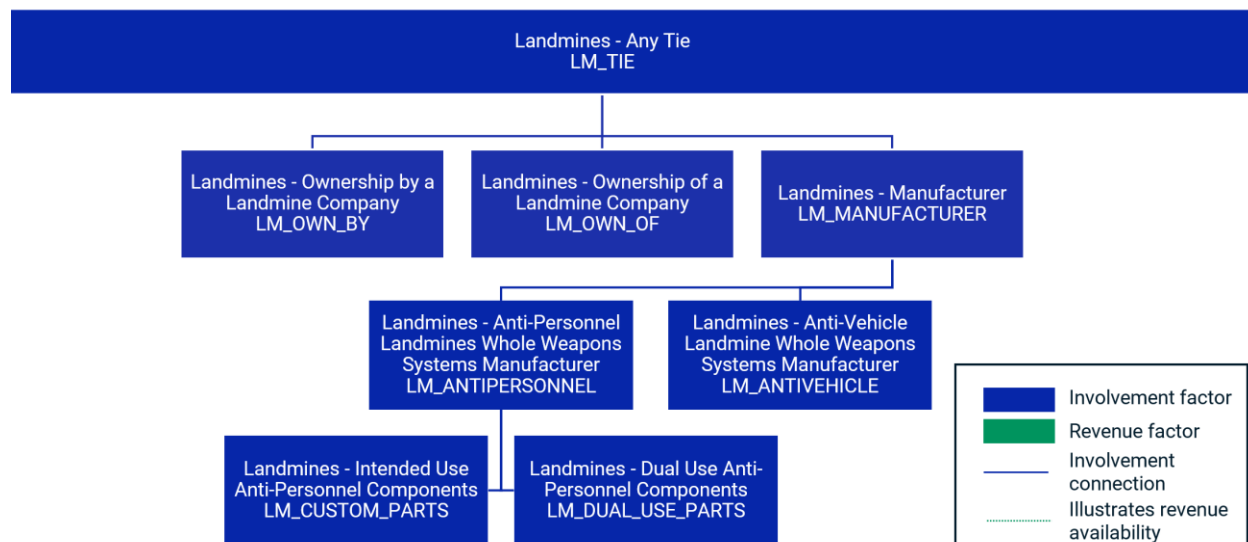
Anti-Personnel Landmine Intended-Use Components: Essential components to the basic function of the weapon. It may also provide added lethality, precision or other functionalities to the weapon.

Anti-Personnel Landmine Dual-Use Components: Essential components that were not developed or are not significantly modified for exclusive use in anti-personnel landmines. These products can be used in a variety of other weapons.

Exclusions

- Mine-laying equipment and other dispersal platforms, such as helicopters and mine-laying tanks;
- Marine or naval mines;
- Improvised explosive devices (IEDs);
- Intermediary components or raw materials, such as the metal used in mine casings, chemicals, etc.;
- Minor or common components, such as cables, wirings, bolts and nuts, present in almost all electronic or mechanical equipment and devices; and
- Mine deactivation or clearance services, including mine deactivation training.

Screening data points hierarchy



Activity specific involvement data points

Landmines - Any Tie

Data point Description	Indicates whether the company is involved in the production of anti-personnel or anti-vehicle landmines, essential intended or dual-use components of such products or is involved indirectly through ownership ties to companies involved in such products. Landmines - Smart Weapon involvement is excluded from Landmines - Any Tie. The value is “True” if one or more of the underlying involvement factors is “True.”
Short Name	LM_TIE

Landmines - Manufacturer

Data point Description	Companies that produce whole weapons systems or essential intended or dual-use components for anti-personnel landmines and anti-vehicle landmines.
Short Name	LM_MANUFACTURER
Additional Information	N/A
Specific Inclusions	N/A

Specific Exclusions	N/A
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Landmines - Anti-Personnel Landmines Whole Weapons Systems Manufacturer

Data point Description	Companies that produce anti-personnel landmines whole weapons systems.
Short Name	LM_ANTIPERSONNEL
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Landmines - Intended Use Anti-Personnel Components

Data point Description	Companies that produce essential components developed or significantly modified for exclusive use in anti-personnel landmines.
Short Name	LM_CUSTOM_PARTS
Additional Information	N/A
Specific Inclusions	<p>These include, but are not limited to:</p> <ul style="list-style-type: none"> • Casings or containers; • Munitions or explosives, booster charge and main charge; • Pressure plates, sensor systems, tilt-rods and other triggering mechanisms; and • Fuses and arming devices developed for anti-personnel landmines, or significantly modified to be used in anti-personnel landmines.
Specific Exclusions	N/A

Landmines - Dual Use Anti-Personnel Components

Data point Description	Companies that produce essential components that could be used in anti-personnel landmines but were not developed or significantly modified exclusively for such purpose.
Short Name	LM_DUAL_USE_PARTS

Additional Information	N/A
Specific Inclusions	<p>These products can be used in a variety of other weapons, such as fuses used in other ordnances. These include, but are not limited to:</p> <ul style="list-style-type: none"> • Any of the components listed above that were not developed solely for landmines or not significantly modified; • Multi-purpose fuses and arming devices; and • Igniters or detonators.
Specific Exclusions	N/A

Landmines - Anti-Vehicle Landmine Whole Weapons Systems Manufacturer

Data point Description	Companies that produce anti-vehicle landmines whole weapons systems.
Short Name	LM_ANTIVEHICLE
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Landmines - Smart Weapon

Data point Description	Companies that exclusively produce "smart" anti-personnel landmines or components for exclusive use in "smart" anti-personnel landmines. Smart anti-personnel landmine weapons have technological improvements that minimize the danger and harm to non-combatants.
Short Name	LM_SMARTWEAP
Additional Information	<p>These weapons have all the following characteristics:</p> <ul style="list-style-type: none"> • Munition does not automatically explode upon being triggered by a person or it only explodes upon command by an operator, i.e., it is not victim-activated; and • Munition has either of the following features that reduces its possibility to become an unexploded ordnance:

	<ul style="list-style-type: none"> - a self-deactivate mechanism or can be activated/deactivated by an operator either manually or remotely, or - a self-destruct mechanism or can be commanded to self-destruct by an operator either manually or remotely.
Specific Inclusions	N/A
Specific Exclusions	N/A

Landmines - Reviewed and/or Past Involvement

Data point Description	Indicates unconfirmed public allegations of involvement or past involvement of the company in production of landmines. Companies with current and verifiable evidence are flagged under corresponding landmines involvement screens.
Short Name	LM_REVIEWED

Landmines - Safety (Positive Indicator)

Data point Description	Companies that produce landmine deactivation and clearance equipment.
Short Name	LM_SAFETY
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

U.S. DOD Top 100 Contractors

MSCI ESG Research's U.S. DOD Top 100 Contractors presents the largest companies in terms of total contracts awarded by the U.S. Department of Defense in a given fiscal year. The source for this screen is the U.S. Department of Defense.

Note: This screen only flags equity-issuing companies, but the US DOD Top 100 includes some private companies. Thus, ranking may not appear in sequential order.

Coverage Universe

Standard Business Involvement Screening Research coverage (BISR_COVERED).

Activity specific involvement data points

U.S. DOD Top 100 - Contract Amount

Data point Description	The total contract value for companies included on the U.S. DOD Top 100 Contractors list.
Short Name	DOD_TOP100_CONTRACT_AMT

U.S. DOD Top 100 - Contract Percentage

Data point Description	The percentage share of U.S. DOD contracts for companies included on the U.S. DOD Top 100 Contractors list.
Short Name	DOD_TOP100_CONTRACT_PCT

U.S. DOD Top 100 – Rank

Data point Description	The rank of companies included on the U.S. DOD Top 100 Contractors list according to total contract amount (1 to 100).
Short Name	DOD_TOP100_RANK

Appendix 1-V: Music

MSCI ESG Research’s music research identifies publicly traded companies that are involved in the production and distribution of music. The research describes both the type of involvement and the revenue from that involvement.

Coverage Universe

Islamic screen coverage universe (ISLAMIC_COVERED).

Sources

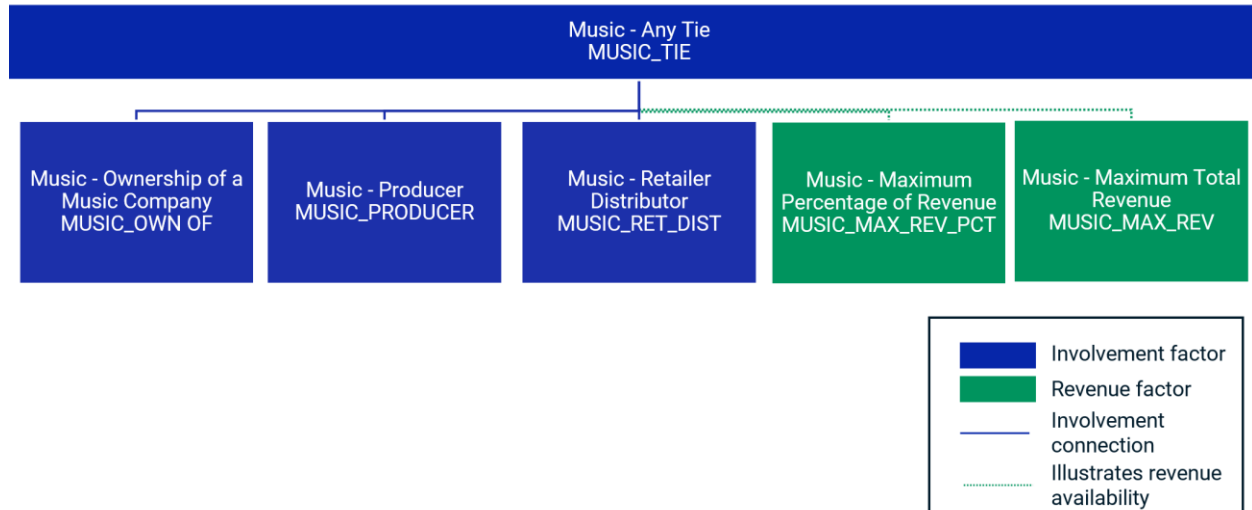
Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

Exclusions

- Manufacturer of electronic systems or devices;
- Companies that promote or advertise concerts;

- Companies operating establishments, such as airport, stores, or restaurants, that play ambient background music; and
- E-commerce and online marketplace companies that only facilitate transactions between parties but do not directly sell involved products.

Screening Data points Hierarchy



Activity specific involvement data points

Music - Any Tie

Data point Description	Indicates whether the company is involved in the production or retail of music and related activities or is involved indirectly through ownership ties to companies involved in such products or services. The value is “True” if one or more of the underlying involvement factors is “True.”
Short Name	MUSIC_TIE

Music - Producer

Data point Description	Companies that manufacture musical instruments, produce music, or organize concerts and live music performances.
Short Name	MUSIC_PRODUCER
Additional Information	N/A

Specific Inclusions	N/A
Specific Exclusions	N/A

Music - Retailer Distributor

Data point Description	Companies that retail or distribute music, musical instruments, and related music products to consumers. This data point also includes companies that own or operates broadcasting systems or providers of cable or satellite television services.
Short Name	MUSIC_RET_DIST
Additional Information	N/A
Specific Inclusions	Includes companies that retail or distribute music through streaming services.
Specific Exclusions	N/A

Appendix 1-W: Nuclear Power

MSCI ESG Research’s nuclear power research is designed to identify companies that own or operate active nuclear power plants and manufacture and supply key products or services to the nuclear power industry. The research describes the type of involvement, the company’s percentage of power generation derived from nuclear sources, percentage of total nuclear installed capacity and the revenue from nuclear power-related activities.

Coverage Universe

Standard Business Involvement Screening Research coverage (BISR_COVERED).

Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

Exclusions

- Companies that design, develop or build experimental reactors or reactors that are not used for the generation of energy for commercial purposes;

- Companies that provide nuclear power plant decommissioning services;
- Companies that manufacture components considered generic or non-essential, such as ordinary nuts, bolts, screws, wirings and cables, etc., or raw materials used to produce major components, such as metal and steel for nuclear reactors, control rods, etc.
- Companies that provide equipment used for non-standard or emergency operations, such as backup generator sets, bunkhouses, etc.;
- Companies that provide security equipment or services, or personnel safety gear;
- Companies that are still in the exploration stages of uranium mining with no active mines;
- Companies that provide insurance products and services to nuclear power plants; and
- Companies that no longer have the capacity to generate nuclear power, including companies with a license to dismantle their nuclear power facility.

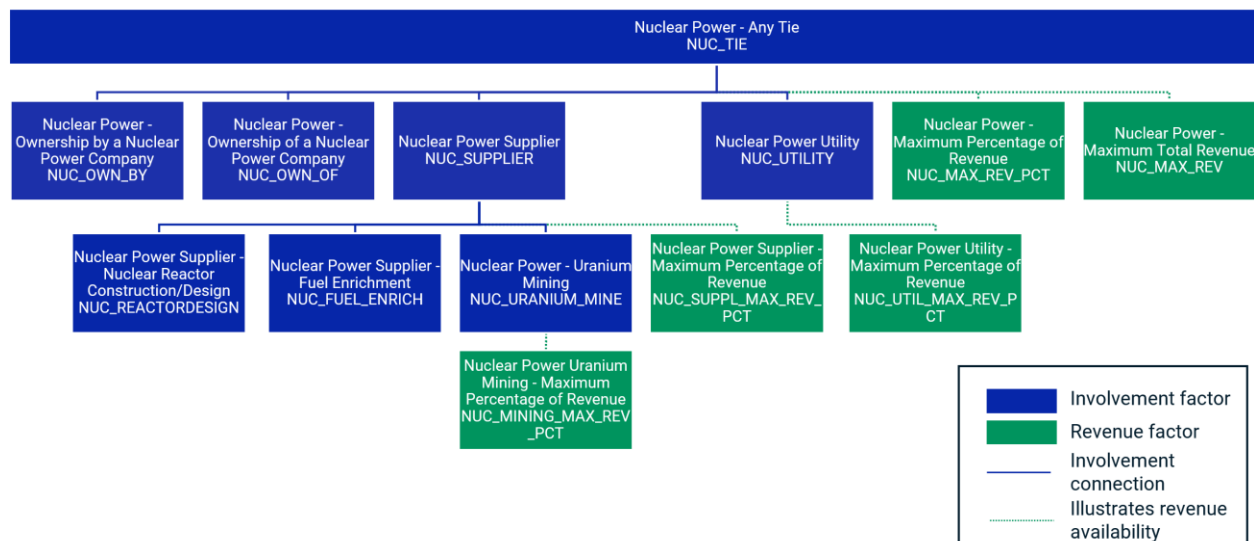
Revenue Estimation for Nuclear Power Utilities

While there are a few select companies that disclose or differentiate revenue coming from nuclear power sources due to a subsidiary or subsidiaries' operation of nuclear power plants, most of the utilities in MSCI ESG Research's universe only provide consolidated revenue. Because of this, MSCI ESG Research employs a process to estimate revenue.

The following is MSCI ESG Research's BISR revenue estimation process for percentage of revenue derived from the sale of electricity generated by nuclear power:

1. Capture the revenue derived from electricity generation from company reported figures.
2. Determine the percent of electricity generation from nuclear power in the most recently completed fiscal year using company-reported figures.
 - a. If generation figures are not available, the percent of installed capacity may be used.
 - b. If only raw figures of either are reported, the percentage will be calculated first.
3. Calculate the revenue derived from the sale of electricity generated from nuclear power (absolute dollar figure) by multiplying the percent of nuclear generation and the disclosed revenue from electricity.
4. Divide the revenue derived from the sale of electricity generated from nuclear power by the total company revenue to obtain the estimated percentage of total revenue derived from nuclear power.

Screening data points hierarchy



Activity specific involvement data points

Nuclear Power - Any Tie

Data point Description	Indicates whether the company owns or operates nuclear power plants, provides services or materials for nuclear power generation, or is involved indirectly through ownership ties to companies involved in such products or services. The value is “True” if one or more of the underlying involvement factors is “True.”
Short Name	NUC_TIE

Nuclear Power Supplier

Data point Description	Companies that provide essential products or services to active nuclear power plants.
Short Name	NUC_SUPPLIER
Additional Information	N/A
Data point Specific Inclusions	<ul style="list-style-type: none"> • Companies that provide essential products and/or services to active nuclear power plants, including but not limited to: <ul style="list-style-type: none"> ○ Companies that build or design nuclear power plants or nuclear power technology, which includes: <ul style="list-style-type: none"> ▪ Suppliers of key components for nuclear power plants, or essential services for the design,

	<p>construction, engineering or operation of nuclear power plants;</p> <ul style="list-style-type: none"> ▪ Producers and developers of nuclear fuel products, nuclear reactors, nuclear control rods and other nuclear power-specific equipment, etc.; and ▪ Engineered containments, including engineering and construction of structures for beyond-design basis facilities. <ul style="list-style-type: none"> • Companies that manufacture or supply essential components and equipment, which includes: <ul style="list-style-type: none"> ○ Instrumentation & control (I&C) equipment and systems to nuclear power plants. These systems are essential in monitoring and maintaining the operations of nuclear power plants as they provide real-time measurements, sensors, control and regulation of the operations of the plant; and ○ Mechanical and remote handling systems, such as robot technologies and equipment used in the safe and efficient handling of nuclear fuel or radioactive materials. • Companies that provide repair and maintenance services to nuclear power plants, which include non-destructive testing of key nuclear power equipment like reactors and site testing. • Companies that provide consulting and license renewal services for the nuclear industry, including companies that provide commercial-grade dedication. Commercial-grade dedication is an acceptance process that allows a commercial-grade product to be used in nuclear power plants. The attestations indicate that a product has passed stringent nuclear quality standards. • Companies involved in uranium mining, uranium conversion, uranium enrichment for nuclear power, nuclear fuel assembly, etc. • Companies that provide distribution and handling services of nuclear fuel, including those that provide spent-fuel handling and processing and spent-fuel storage services
<p>Specific Exclusions</p>	<p>N/A</p>

Nuclear Power Supplier - Nuclear Reactor Construction/Design

<p>Data point Description</p>	<p>Companies that design and engineer nuclear power reactors.</p>
<p>Short Name</p>	<p>NUC_REACTORDESIGN</p>
<p>Additional Information</p>	<p>N/A</p>

Specific Inclusions	N/A
Specific Exclusions	N/A

Nuclear Power Supplier - Fuel Enrichment

Data point Description	Companies involved in uranium enrichment and processing.
Short Name	NUC_FUEL_ENRICH
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Nuclear Power - Uranium Mining

Data point Description	Companies that own or operate active uranium mines.
Short Name	NUC_URANIUM_MINE
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Nuclear Power Utility

Data point Description	Companies that own or operate active nuclear power plants.
Short Name	NUC_UTILITY
Additional Information	This research includes companies that produce electricity using nuclear power plants.

Specific Inclusions	N/A
Specific Exclusions	N/A

Nuclear Power - Nuclear Percentage of Power

Data point Description	Nuclear power as a percentage of the company's total generation in the most recently completed fiscal year
Short Name	NUC_PCT_GEN
Additional Information	MSCI ESG Research looks for self-generated nuclear power and does not consider purchased power in this figure. Generation differs from installed capacity; however, installed capacity is substituted when percent generation is not available.
Specific Inclusions	N/A
Specific Exclusions	N/A

Nuclear Power - Percent Nuclear Installed Capacity

Data point Description	The percentage of installed capacity attributed to nuclear power in the company's most recently completed fiscal year.
Short Name	NUC_PCT_NUCCAP
Additional Information	Where total installed capacity or nuclear capacity figures are not publicly disclosed, the percentage may not be available. MSCI ESG Research does not provide estimates for this data point.
Specific Inclusions	N/A
Specific Exclusions	N/A

Appendix 1-X: Palm Oil

MSCI ESG Research's palm oil Screen identifies companies involved in the production and distribution of palm oil products. The research describes both the type of involvement and the revenue from that involvement.

Coverage Universe

Business Involvement Screening Research Palm Oil coverage (PALM_OIL_COVERED), which includes the MSCI ACWI IMI index.

Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

Definitions

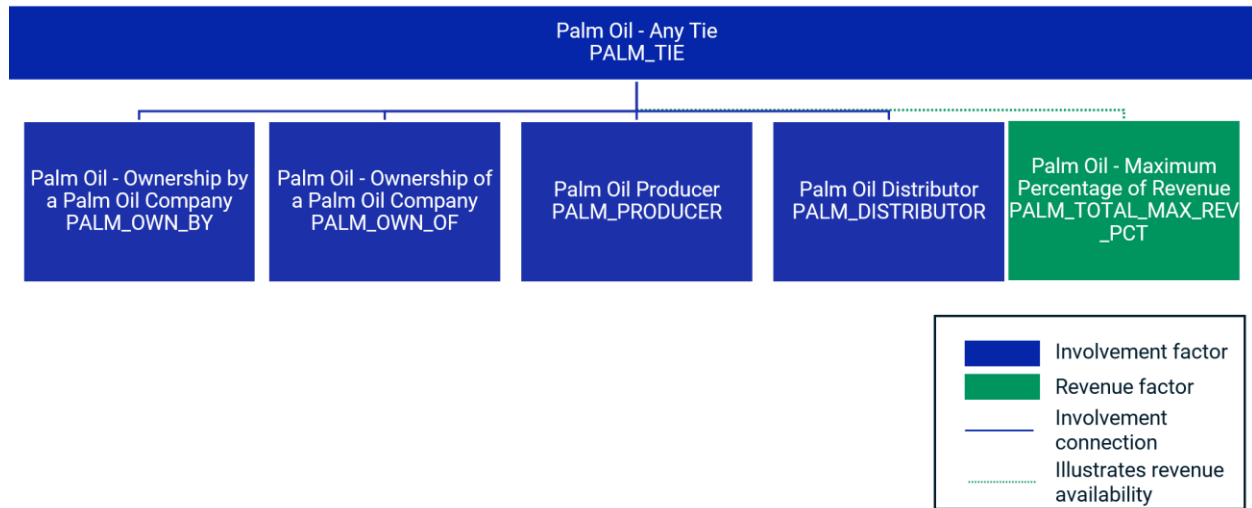
MSCI ESG Research defines palm oil as a yield of the African oil palm or *Elaeis guineensis Jacq.* The oil can either be extracted from the flesh of the fruit of the palm or the crushed extract of the kernel of the fruit.

MSCI ESG Research monitors the Roundtable on Sustainable Palm Oil (RSPO) Annual Communication of Progress Reports (ACOP) that indicate palm oil plantation certification according to RSPO’s standards. These data points only use direct disclosure from the reports. If a company fails to update their ACOP data within three years from their last disclosure, then their data will be considered stale and be removed. Lastly, companies that were removed from RSPO will also have their respective RSPO data points removed since non-RSPO members are no longer required to report updated RSPO data.

Exclusions

- Companies that manufacture or sell products that use palm oil as an ingredient or component;
- Companies that distribute and produce palm oil derivatives and fractionated products, such as olein, stearin and palmitic acid;
- Companies that sell oil palm seeds;
- Companies that only transport products from mill & supply base to refineries; and
- Companies that disclosed their primary activities or products of their organization only as consumer goods manufacturers, retailers, and banks and investors in the RSPO Annual Communication of Progress Reports.

Screening data points hierarchy



Activity specific involvement data points

Palm Oil - Any Tie

Data point Description	Indicates whether the company is involved in the production or distribution of palm oil or is involved indirectly through ownership ties to companies involved in such products or services. The value is “True” if one or more of the underlying involvement factors is “True.”
Short Name	PALM_TIE

Palm Oil Producer

Data point Description	Companies that cultivate oil palm trees and harvest fresh fruit bunches (FFBs) used to produce palm oil products.
Short Name	PALM_PRODUCER
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Palm Oil Distributor

Data point Description	Companies involved in trade or distribution of palm oil products. This data point does not identify companies that distribute products that contain palm oil as one of their ingredients or components.
Short Name	PALM_DISTRIBUTOR
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Palm Oil - Target Year of 100% RSPO Certification

Data point Description	The target year for the company to obtain 100% RSPO certification for its palm oil holdings and estates.
Short Name	PALM_RSPO_100PCT_YEAR
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Palm Oil - First Year of RSPO Certification

Data point Description	The first year in which the company obtained RSPO certification for its palm oil holdings and estates.
Short Name	PALM_RSPO_FIRST_YEAR
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Palm Oil - RSPO Percent of Certification

Data point Description	The percentage of the company's palm oil holdings and estates that are RSPO certified.
Short Name	PALM_RSPO_PCT
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Appendix 1-Y: Pork

MSCI ESG Research’s pork research identifies companies involved in the production of pork products, including pig breeding, slaughtering and processing meat and food products with pork ingredients, as well as the retail and distribution of such products. The research describes both the type of involvement and the revenue from that involvement.

Coverage Universe

Standard Business Involvement Screening Research coverage (BISR_COVERED).

Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

Definitions

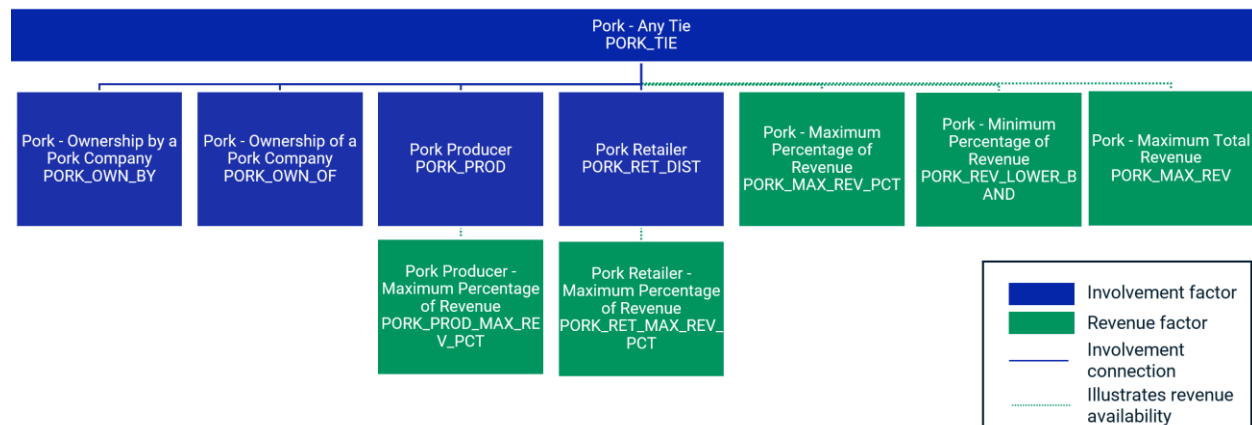
Pork is the culinary name for meat from the domestic pig (swine or *Sus domesticus*). MSCI ESG Research classifies involvement in the industry as follows:

Exclusions

- Companies that manufacture or market animal feeds, medicines or vitamins;
- Landowners who lease their estates for pig agriculture, unless they operate the production and operation of these facilities;
- Companies that produce gelatin, which is a secondary product and not only particular to production of pork-related products;
- Companies that manufacture pharmaceutical products, such as vitamins, that contain collagen derived from swine/pig;

- Railroad, shipping and transportation companies that may also transport pork products; and
- E-commerce and online marketplace companies that only facilitate transactions between parties but do not directly sell involved products.

Screening data points hierarchy



Activity specific involvement data points

Pork - Any Tie

Data point Description	Indicates whether the company is involved in the production, distribution, or retail of pork products, or is involved indirectly through ownership ties to companies involved in such activities. The value is “True” if one or more of the underlying involvement factors is “True.”
Short Name	PORK_TIE

Pork Producer

Data point Description	Companies engaged in the production of pork products, including pig breeding and slaughtering, processed pork, and the production of packaged food products with pork ingredients.
Short Name	PORK_PROD
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Pork Retailer

Data point Description	Companies that distribute or sell pork and pork products to consumers.
Short Name	PORK_RET_DIST
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> • Pork wholesalers; • Restaurants, bakeries and catering services that offer food items with pork ingredients; • Distributors of pork-related products to retailers and supermarkets; • Specialty stores that sell pork-related products; and • General merchandise stores, convenience stores and supermarkets selling pork-related products.
Specific Exclusions	N/A

Appendix 1-Z: Stem Cells

MSCI ESG Research’s stem cell research identifies companies that conduct research using stem cells derived from human embryos, human fetal tissue or human adult tissue. MSCI ESG Research also identifies publicly traded companies with research partnerships or collaborations that conduct stem cell research through a third party; companies using human fetal cell lines; and companies that produce technology or products that enable stem cell research.

Coverage Universe

Standard Business Involvement Screening Research coverage (BISR_COVERED).

Sources

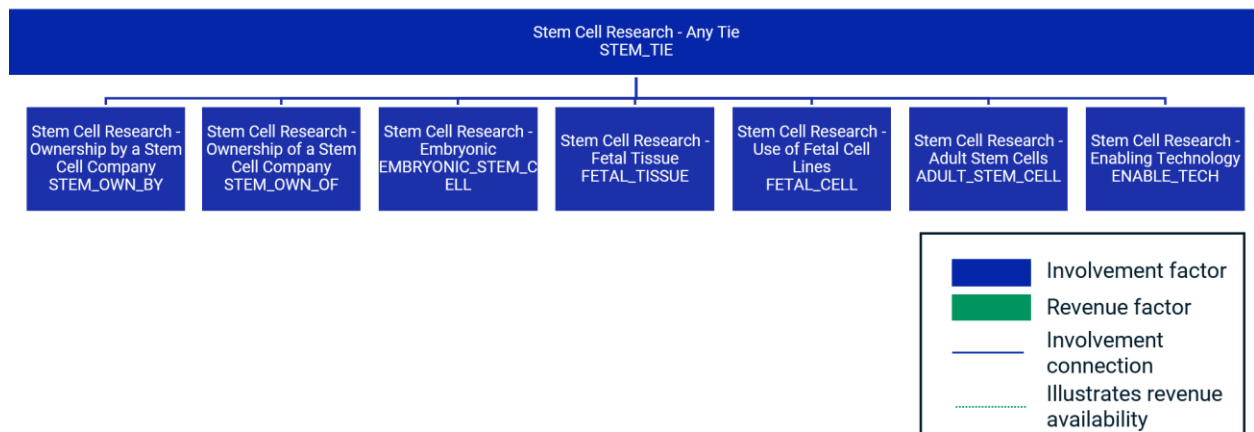
Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		✓	As needed

Exclusions

- Companies involved in research on stem cells derived from animals;
- Companies involved in vitro fertilization or reproductive facilitation;
- Companies involved in reproductive cloning of human cells, tissues or organs;

- Companies involved in marketing, licensing or distributing products related to stem cell research;
- Companies that offer cord-blood banking services;
- Companies that only conduct stem cell research using induced pluripotent stem cells (iPS cells);
- Companies that only conduct research using stem cells derived from tumors or cancer stem cells;
- Companies that produce stem cell lines or conduct stem cell research using unfertilized human eggs as a source;
- Companies that offer provisional services involving stem cell lines, such as hospitals/clinics offering dermatological services; and
- Companies with the intention or plans of conducting research on stem cells in the future but not yet doing so.

Screening data points hierarchy



Activity specific involvement data points

Stem Cell Research - Any Tie

<p>Data point Description</p>	<p>Indicates whether the company conducts stem cell research or is involved indirectly through ownership ties to companies involved in stem cell research. The value is “True” if one or more of the underlying involvement factors is “True.”</p>
<p>Short Name</p>	<p>STEM_TIE</p>

Stem Cell Research - Embryonic

Data point Description	Companies that conduct stem cell research with cells derived from human embryos.
Short Name	EMBRYONIC_STEM_CELL
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Stem Cell Research - Fetal Tissue

Data point Description	Companies that conduct stem cell research with cells derived from human fetal tissue.
Short Name	FETAL_TISSUE
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Stem Cell Research - Use of Fetal Cell Lines

Data point Description	Companies that use fetal cell lines in the development of vaccines and other biologics.
Short Name	FETAL_CELL
Additional Information	N/A
Specific Inclusions	This screen covers fetal cells derived from a fetus at one point in time in the past that continue to grow in laboratories today, including but not limited to HEK293, MRC-5, WI-38, WI-26, RA273, and PER.C6.
Specific Exclusions	N/A

Stem Cell Research - Human Embryonic Stem Cell Cloning

Data point Description	Companies that conduct embryonic stem cell research using human embryos derived from cloning techniques like somatic cell nuclear transfer (SCNT) rather than harvesting cells from spare IVF embryos.
Short Name	HUMAN_EMBR_STEM_CELL
Additional Information	<p>Somatic Cell Nuclear Transfer is a method used to generate patient-specific embryonic stem cells. SCNT involves the removal of an egg cell's nucleus and then replaced with the nucleus of a patient's adult cell (e.g., skin or blood cell).</p> <p>Please note that Stem Cell Research - Human Embryonic Stem Cell Cloning is not included in Stem Cell Research - Any Tie.</p>
Specific Inclusions	N/A
Specific Exclusions	N/A

Stem Cell Research - Adult Stem Cells

Data point Description	Companies that conduct stem cell research with cells derived from human adult tissue and companies that provide enabling technologies for use in adult stem cell research.
Short Name	ADULT_STEM_CELL
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Stem Cell Research - Enabling Technology

Data point Description	Companies that develop or produce products for scientific research specifically on embryonic or fetal stem cells.
Short Name	ENABLE_TECH
Additional Information	N/A

Specific Inclusions	N/A
Specific Exclusions	N/A

Appendix 1-AA: Tobacco

MSCI ESG Research’s tobacco research identifies companies that produce, distribute, retail, license or supply key tobacco products and services. Tobacco is produced from the dried nicotiana plant. The research describes both the type of involvement and the revenue from that involvement.

Coverage Universe

Standard Business Involvement Screening Research coverage (BISR_COVERED).

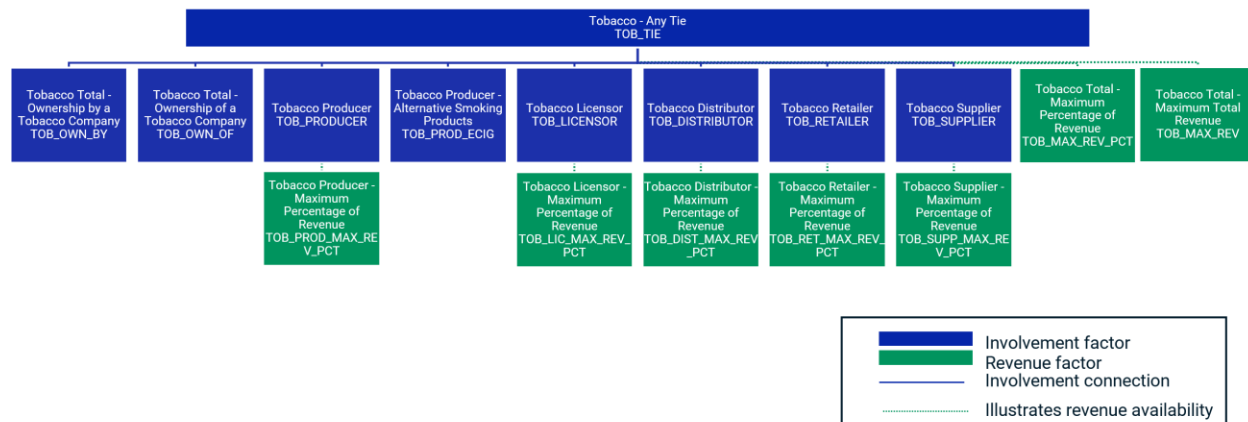
Sources

Public Disclosures	Third-Party Vendors	Direct Company Communication	Supplemental Sources
✓		As needed	As needed

Exclusions

- Railroad, shipping or transportation companies that may transport tobacco products;
- Companies that manufacture complementary tobacco products such as matches, lighters, pipes, bongs and hookahs;
- Companies that manufacture products used in tobacco farming such as fertilizers, chemicals and harvesting equipment;
- Companies that use tobacco leaves to produce insecticides or tobacco paste;
- Companies that manufacture cigarette vending machines;
- Companies that manufacture equipment such as tobacco drying machines, scales, labeling machines, lighting and packaging machines;
- Companies that manufacture products designed exclusively as an aid to quit smoking;
- Real Estate Investment Trusts (REITs) that generate income from leases or rentals;
- Companies that only distribute and/or retail raw materials used to produce tobacco products; and
- E-commerce and online marketplace companies that only facilitate transactions between parties but do not directly sell involved products.

Screening Data points Hierarchy



Activity specific involvement data points

Tobacco - Any Tie

Data point Description	Indicates whether the company is involved in the production, distribution or retail of tobacco products, as a licensor of brand names for tobacco products, as a supplier for tobacco products or is involved indirectly through ownership ties to companies involved in such products or services. The value is “True” if one or more of the underlying involvement factors is “True.” Tobacco products include nicotine-containing products, including traditional and alternative tobacco smoking products.
Short Name	TOB_TIE

Tobacco Producer

Data point Description	Companies involved in the production of tobacco products. Tobacco products include nicotine-containing products, including traditional and alternative tobacco smoking products.
Short Name	TOB_PRODUCER
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> Companies that produce tobacco products, such as cigars, blunts, cigarettes, tobacco inhalers, beedis, kreteks, smokeless tobacco, snuff, snus, dissolvable and chewing tobacco. This also includes companies that grow or process raw tobacco leaves;

	<ul style="list-style-type: none"> Contract manufacturing companies that produce the whole/complete electronic nicotine delivery system (ENDS); and E-cigarette devices with injected e-liquid/tobacco substance.
Specific Exclusions	<ul style="list-style-type: none"> Companies that sell private-label tobacco products manufactured by a third party; and Companies that applied for or hold license to manufacture tobacco products, including e-cigarettes, but have not yet started production.

Tobacco Producer - Alternative Smoking Products

Data point Description	Companies that exclusively produce products that are alternatives to traditional smoking products. Companies that produce traditional smoking products are excluded from Tobacco Producer - Alternative Smoking Products.
Short Name	TOB_PROD_ECIG
Additional Information	<p>This includes electronic nicotine delivery systems (ENDS), including but not limited to vapes, vaporizers, vape pens, hookah pens, electronic cigarettes (“e-cigarettes” or “e-cigs”), tobacco inhalers, e-pipes and heated tobacco products (HTP).</p> <p>ENDS/E-cigarette devices should be disclosed as having nicotine or tobacco content.</p>
Specific Inclusions	N/A
Specific Exclusions	<ul style="list-style-type: none"> Companies that produce traditional smoking products; and Cessation products.

Tobacco Licensor

Data point Description	Companies that license brand names to tobacco products. Tobacco products include nicotine-containing products, including traditional and alternative tobacco smoking products.
Short Name	TOB_LICENSOR
Additional Information	N/A
Specific Inclusions	N/A
Specific Exclusions	N/A

Tobacco Distributor

Data point Description	Companies involved in the wholesale of tobacco products to retailers and other distributors. Tobacco products include nicotine-containing products, including traditional and alternative tobacco smoking products.
Short Name	TOB_DISTRIBUTOR
Additional Information	Companies involved in the independent wholesale of ENDS/e-cigarettes will only be considered for this data point if the product’s nicotine or tobacco content is explicitly disclosed.
Specific Inclusions	N/A
Specific Exclusions	<ul style="list-style-type: none"> Manufacturers that distribute their own tobacco products unless it also provides logistics or distribution services to other tobacco companies.

Tobacco Retailer

Data point Description	Companies that sell tobacco products to consumers. Tobacco products include nicotine-containing products, including traditional and alternative tobacco smoking products.
Short Name	TOB_RETAILER
Additional Information	Retailers of ENDS/e-cigarettes will only be considered for this data point if the product’s nicotine or tobacco content is explicitly disclosed.
Specific Inclusions	N/A
Specific Exclusions	N/A

Tobacco Supplier

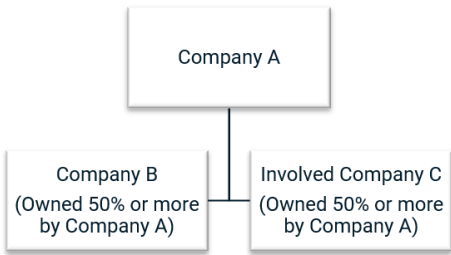
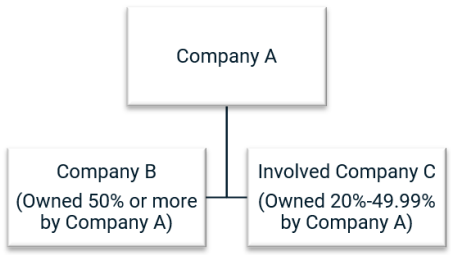
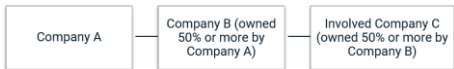
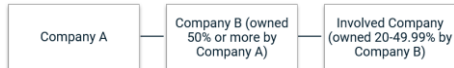
Data point Description	Companies that produce and supply essential products for the production of tobacco products. Tobacco products include nicotine-containing products, including traditional and alternative tobacco smoking products.
Short Name	TOB_SUPPLIER
Additional Information	N/A
Specific Inclusions	<ul style="list-style-type: none"> Companies that manufacture and supply key products necessary for the production of tobacco products, such as tobacco flavoring, sorbitol, tobacco sauce, tobacco fragrance/aroma, cigarette filters



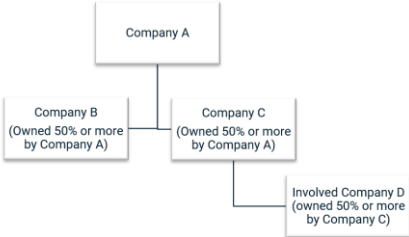
	<p>(acetate tow), tobacco roll paper, cigarette manufacturing machines and tobacco packaging; specifically, cigarette cartons, films and aluminum foil; and</p> <ul style="list-style-type: none"> • Companies that manufacture components of ENDS/e-cigarettes and heated tobacco products. Companies that manufacture the following key components of e-cigarettes or vape devices will be flagged only when the products are supplied to tobacco producers: <ul style="list-style-type: none"> – Nicotine e-liquid/e-juice; – Heating device/Atomizer; – Cartomizer/Clearomizer; – Battery power source; – Drip tip/mouthpiece; and – Whole vaping/e-cig device (without e-liquid/tobacco content), as some companies manufacture closed-system vaping devices that are supplied to tobacco companies to be injected with nicotine liquid.
<p>Specific Exclusions</p>	<ul style="list-style-type: none"> • Suppliers of tobacco suppliers, such as companies that produce pulp for tobacco product packaging.


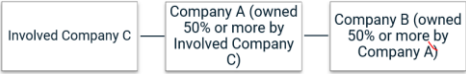
Appendix 2 - Practical Application of Ownership Screens

Below are cases to illustrate how ownership screens are applied within different corporate structures.

Exhibit 3: Application of Ownership Screens

Case	Illustration	Explanation
Case 1		If Company A owns at least 50 percent of an involved Company C, Company A would be considered directly involved. Company B would be flagged as “Ownership by” an involved company.
Case 2		If Company A owns 20 percent to 49.99 percent of an involved Company C, and Company B is at least 50 percent owned by Company A, Company B is not flagged for involvement. In this case, indirect involvement of Company A is recognized as “Ownership of” an involved Company C. As a sister-entity, Company B will not be considered involved.
Case 3		If Company A owns at least 50 percent of Company B, which in turn owns at least 50 percent of involved Company C, then both Company A and Company B would be flagged as directly involved. Meaning these companies will be recognized for the same type of involvement (e.g., producer) as the implicated subsidiary and will inherit the same degree of revenue attributed to the activity.
Case 4		If Company A owns at least 50 percent of Company B, which in turn owns 20 to 49.99 percent of an involved Company C, Company B would be considered a consolidated

		<p>subsidiary. In this case Company A and Company B would be flagged as involved indirectly through “Ownership of” an involved company.</p>
<p>Case 5</p>		<p>If Company A owns 20 to 49.99 percent of Company B, which in turn owns at least 50 percent of an involved Company C, then Company A’s involvement would be recognized as “Ownership of” an involved company, while Company B would be assessed as directly involved.</p>
<p>Case 6</p>		<p>If Company A owns 20 to 49.99 percent of Company B, which in turn owns 20 to 49.99 percent of an involved Company C, Company A would not be considered as involved. Company B would be considered involved indirectly through “Ownership of” an involved company.</p> <p>Note on tracking stocks: Occasionally companies issue tracking stocks. These are stocks that are issued under different tickers for divisions of the same company. MSCI ESG Research treats these companies as if they were the same company. If one tracking stock receives a BISR involvement flag, all tracking stocks will receive the same treatment.</p>
<p>Case 7</p>		<p>In this case, Company A owns at least 50 percent of Company C, and Company C owns at least 50 percent of an involved Company D. Company A and Company C would be assessed as directly involved. Company B</p>

		<p>would be flagged for "Ownership by" an involved company.</p> <p>Note: If Company A owns 20 to 49.99 percent of Company C, Company A would be considered indirectly involved through "Ownership of" an involved company, while Company C would be assessed as directly involved. Company B would not be considered involved, as this would be a case of "double ownership".</p> <p>Also, if Company C were to own 20 to 49.99 percent of the involved company, then Company A and Company C would be considered in "Ownership of" an involved company. Company B would not be considered involved, as this would also be a case of "double ownership".</p>
<p>Case 8</p>		<p>If Company A owns less than 20 percent in an involved Company C, Company A would not be considered involved.</p>
<p>Case 9</p>		<p>If an involved Company C owns at least 50 percent of Company A, and Company A owns at least 50 percent of Company B, Company A would be considered indirectly involved through "Ownership by" and Company B would not be flagged for involvement.</p> <p>The above rule is applicable if Company A and Company B are both operating entities. Additional considerations:</p> <ul style="list-style-type: none"> • If Company A is an operating entity and Company B is a financing company,

		<p>then Company A would be considered indirectly involved through “Ownership By” an involved company, while Company B would mirror Company A’s involvement.</p> <ul style="list-style-type: none"> • If Company A is a financing company and Company B is an operating entity, then Company A would mirror the involved company’s profile while Company B would be flagged for indirect involvement through “Ownership By” an involved company. • If both Company A and Company B are financing companies, then they would both mirror the involved company’s profile.
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Appendix 3 - Coverage Flags

Standard Coverage

MSCI ESG Research provide coverage flags that can be used to identify companies within the scope of BISR screens. The coverage flag for each business activity is stated in their respective Business Involvement Screens section.

BISR – Standard Screens – In Coverage Universe

Data point Description	Issuer is in the standard Business Involvement Screening Research (BISR) coverage universe, which is applied to the following areas of involvement: Abortion, Adult Entertainment, Alcohol, Animal Welfare, Baptist, Biocides, Breast Milk Substitutes, Cannabis, Catholic, Contraceptives, Defense and Weapons, Gambling, Genetic Engineering, Global Sanctions, Nuclear Power, Pork, Stem Cells, and Tobacco. This coverage universe flag doesn't apply to For Profit Healthcare, For Profit Prisons, Fur, Islamic, Hotels, Cinemas, Music, Palm Oil, Conventional Financial Services, and Predatory Lending screens. For details on how the coverage universe is defined, please reference the Business Involvement Screening Research Methodology document.
Short Name	BISR_COVERED
Additional Information	Outputs: T, Blank

Non-Standard Coverage

BISR – Islamic Screens – In Coverage Universe

Data point Description	Issuer is in the coverage universe applied to the Islamic screens: Hotels, Cinemas, Music, Dating Services and Conventional Financial Services.
Short Name	ISLAMIC_COVERED
Additional Information	Outputs: T, Blank

BISR – Predatory Lending – In Coverage Universe

Data point Description	Issuer is in the coverage universe applied to the Predatory Lending screens.
Short Name	PREDATORY_LENDING_COVERED
Additional Information	Outputs: T, Blank

BISR – For Profit Healthcare – In Coverage Universe

Data point Description	Issuer is in the coverage universe applied to For Profit Healthcare screens.
Short Name	FOR_PROFIT_HEALTHCARE_COVERED
Additional Information	Outputs: T, Blank

BISR – For Profit Prisons – In Coverage Universe

Data point Description	Issuer is in the coverage universe applied to For Profit Prisons screens.
Short Name	FOR_PROFIT_PRISONS_COVERED
Additional Information	Outputs: T, Blank

BISR – Fur – In Coverage Universe

Data point Description	Issuer is in the coverage universe applied to the Fur screens.
Short Name	FUR_COVERED
Additional Information	Outputs: T, Blank

BISR – Palm Oil – In Coverage Universe

Data point Description	Issuer is in the coverage universe applied to the Palm Oil screens.
Short Name	PALM_OIL_COVERED
Additional Information	Outputs: T, Blank

Appendix 4: Interpreting Coverage Flags

The Coverage and Coverage Status flags can be utilized to help interpret blanks, non-blanks and zeros in MSCI ESG Research BISR involvement or revenue data point outputs.

Data point ²² Output	Coverage Flag (BISR_COVERED)	Coverage Status Flag (BISR_COVERAGE_STATUS)	Indication
Blank	Blank	Blank	The issuer is not part of coverage and will not be independently researched
Blank	T	Blank	The issuer is part of coverage and has not yet been independently researched.
Blank	T	Not Involved – Verified	The issuer is part of coverage, MSCI ESG Research have completed research, but found no involvement for the content datapoint.
Blank	T	Involved	The issuer is part of coverage, MSCI ESG Research have completed research, found involvement for at least one of the standard screens, but not for the datapoint that is blank.
0	T	Involved	For revenue data points within BISR, a 0 indicates that MSCI ESG Research found involvement, but that revenue is either 0, or close to 0 (since values are rounded).
Non-Blank	Blank	Non-Blank (Involved, or Non Involved – Verified)	The issuer has recently fallen from coverage, meaning data will no longer be updated, and data is pending un-publication.

Involvement Status (BISR Coverage Status)

Data point Description	The company's current research status for all BISR related categories. This data point returns the following values: Involved, Not involved – verified. Note: This flag is only applicable to issue areas that follow the screening standard coverage (Global Equities + Select Fixed Income).
Short Name	BISR_COVERAGE_STATUS

²² Involvement and revenue data points are described in the involvement evaluation types section. An example of a data point would be "Alcohol Producer - Maximum Percentage of Revenue" where a non-blank output has a numerical value that represents a percentage.

<p>Additional Information</p>	<p>BISR Coverage Status indicates coverage status of the research, not whether the issuer is in the universe of companies subject to review.</p> <p>BISR_COVERAGE_STATUS flag is meant to be used only for screens that follow the standard coverage universe, as provided below.</p> <p>Standard screens: Abortion, Adult Entertainment, Alcohol, Animal Welfare, Baptist, Biocides, Breast Milk Substitutes, Cannabis, Catholic, Contraceptives, Defense and Weapons, Gambling, Genetic Engineering, Nuclear Power, Pork, Stem Cells and Tobacco screens.</p> <p>BISR Coverage Status is not subject to Data Mapping.</p> <p>Outputs: Involved, Not Involved – Verified, Blank</p>
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