

Controversial Activities

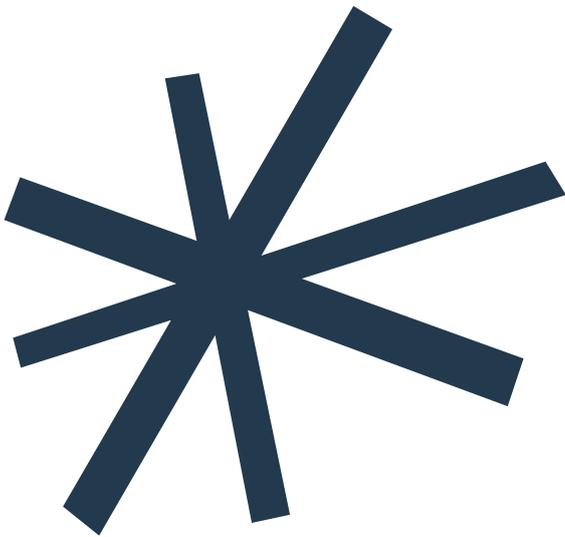
Minimum Standards



This is a methodological document aimed at clarifying how Mirova takes into account controversial activities in the sustainability analysis of companies.

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Mirova was created to finance economic models that contribute positively to sustainable development. Much of our work is focused on identifying solution providers that create positive impact, but this does not dispense us of the need to ensure that our investments always meet or exceed minimum standards including with regards to controversial activities.

Minimum standards are defined for each sector based on their key environmental and social issues and are detailed in our sectoral research papers. These are available on Mirova's website, at:

<https://www.mirova.com/en/research/understand>.

This document summarizes our positions on major controversial issues and illustrate the criteria we have implemented to ensure compliance with these positions in our analysis of companies.

It applies to all our listed equities and fixed income portfolios.

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Mirova does not exclude any industry on principle. All our positions on controversial issues are the result of an extensive analysis of environmental and social impacts. For certain sectors, this analysis may lead to the exclusion of all players in the sector.

Energy

Fossil Fuels

We consider the growth projections of fossil fuel companies to be incompatible with international climate change mitigation objectives. As the fossil fuel exploration and production industry turns toward riskier extraction techniques (e.g. deep offshore, Arctic, unconventional resources), its environmental and social risk profile is heightened.

Continued oil and coal use over the medium- to long-term is at odds with the energy transition, so we do not consider companies with substantial revenues from oil or coal eligible for investment. This applies to direct involvement in oil and coal through extraction, processing/refining, and trading. It also applies to companies that sell equipment dedicated to these processes.

Beyond extraction, electricity producers are the main coal consumers worldwide while low carbon electricity sources are becoming more and more cost-competitive. As a result, electricity producers with a high share of coal in their power generation mix (and consequently, a high carbon footprint) are also excluded from our investments.

Natural gas is more complex. It can serve as a transition fuel under certain circumstances, but near-complete decarbonization will be necessary over the long term to limit warming to $>2^{\circ}\text{C}$ (in line with the Paris Agreement). While new gas infrastructure may help to lower emissions over the coming years, it may also lead to lock-in effects over time, extending fossil fuel use over the long-term. Furthermore, the gas supply chain – especially in the context of unconventional extraction - is particularly risky and difficult to manage, with the potential for negative impacts on local environments and high fugitive greenhouse gas emissions, which can negate its climate benefit.

For companies involved in fossil fuel extraction, processing/refining, and trading, exclusion applies to companies with:

- **>10% of revenues from coal or oil, including unconventional oil,**
- **>10% of revenues from unconventional gas.**

For companies that produce dedicated equipment/services for the fossil fuel sector, exclusion applies to companies with >50% of revenues from these equipment/services.

For companies involved in electricity production (>10% of sales related to electricity production), exclusion applies to companies with a generation mix dominated by coal, with a carbon intensity >400 gCO₂/kWh.



Nuclear Power

Nuclear power has a CO₂ footprint equivalent to that of renewable energies because fission reactions emit no greenhouse gases. Nonetheless, it is an energy source with risks of its own:

1/ The risk of nuclear accidents. Events like Three Mile Island, Chernobyl and Fukushima have demonstrated that nuclear accidents can take place.

2/ Management of nuclear waste. Even after reprocessing, by-products of fission result in radioactive waste that remain dangerous for hundreds of thousands of years.

These risks mean that nuclear power is not appropriate in many contexts. Political stability is essential, a high level of technical know-how, and strong, independent nuclear regulatory bodies are essential.

We apply a case-by-case analysis of the strategies pursued by actors within the nuclear industry, especially when they are present in countries where the industry is insufficiently monitored.

Food and Agriculture

Palm Oil

At its current scale, palm oil production and use lead to considerable environmental and social problems: deforestation, climate change, biodiversity loss, infringement on indigenous rights, and negative health impacts. Even so, it can support development and help to meet global needs.

Coupled with the increasing demand for vegetable oils, the prominence of palm oil in the world markets indicates that its demand will only continue to grow, reinforcing the need to address the social and environmental issues it raises. As a result, traceability and sustainable supply of palm oil represent a significant area of engagement with companies from this sector.

Exclusion applies to palm oil producers failing to meet the following criteria:

1/ Subscription to the RSPO (Roundtable on Sustainable Palm Oil), with all production certified.

2/ A broad commitment to avoid deforestation and protect peatlands.

Although sustainable palm oil production is an indirect issue for companies positioned downstream of the agriculture value chain, we systematically incorporate palm oil in our review of their supply chain management.

Our requirements in terms of traceability and sustainable supply represent a significant area of engagement with companies from this sector.



Genetic Engineering

While we acknowledge the public mistrust surrounding GMOs and, more broadly, vegetable biotechnology, we believe these technologies have an often-overlooked role to play in ensuring food security and improving nutrition. Given that it can lead to more efficient plant breeding, offering possibilities beyond what can be achieved using conventional techniques, we do not consider biotechnology use as a reason for exclusion in and of itself.

But most of the GMOs marketed today support conventional farming practices as herbicide-tolerant or insect-resistant crops. We thus consider them akin to conventional agrochemicals which tend to create negative effects on ecosystems and do not present any environmental or social benefit.

We apply a case-by-case analysis of the strategies pursued by actors involved in genetic engineering, looking specifically at their commitment to appropriate risk management and transparency around the potential impacts of their products.

Agrochemicals

Agrochemicals are becoming increasingly controversial due to their impacts on the health of farmers, end-users, and local communities. Local bans on certain products, lawsuits from farmers indicating the harmful effect of products, and an increasing number of scientific studies suggest causality between the use of agrochemicals and serious illness.

We analyse the strategies pursued by the actors in the sector on a case-by-case basis, focusing on their product mix, health and safety policies, implementation of the precautionary principle, and communication to users.

Exclusion applies to companies with:

- **>2% of revenues from chemicals banned for sale in certain markets, with no phase-out target over the next three years.**
- **>2% of revenues from chemicals proven harmful by international organisations of reference (World Health Organisation, European Food Safety Authority, etc.)**

Health and Addiction

Tobacco

The tobacco epidemic is one of the biggest and most serious global public health threats – its effects counteracting the advances in health made in the past. The World Health Organisation estimates that roughly 12% of all deaths among adults over the age of 30 are due to tobacco.

In 2005, the WHO Framework Convention on Tobacco Control (WHO FCTC) came into force. Its main objective is to protect present and future generations from the devastating health, social, environmental and economic consequences of tobacco consumption and exposure. Ratified by 174 countries covering 90% of the world's population, the WHO FCTC is a legally



binding treaty by which these countries commit to developing and implementing a series of evidence-based tobacco control measures to regulate the tobacco industry, reduce demand for tobacco and provide alternatives to those involved in growing and producing tobacco.

Exclusion applies to companies with >10% sales from tobacco production or retail.

Alcohol

Alcohol-producing and retailing companies face significant risk related to harmful social effects stemming from their products. The World Health Organisation suggests that alcohol overuse can lead to a wide range of acute and chronic health effects.

However, we consider that certain groups are the most exposed to risks of overuse and negative health effects: consumers of companies' low-end product ranges, consumers in areas where the company has large operations but is subject to limited regulation, and/or young people. We believe that companies with risk management frameworks in place to limit the risks associated with the alcohol use of these consumer groups may be able to substantially reduce their negative social impacts and risk exposure.

Since industry self-regulation is the main force driving mitigation of social risk for companies involved in alcohol production (i.e. large companies mainly act together within industry initiatives to tackle this issue), companies have a major responsibility to promote responsible marketing and distribution practices, tailored to their product ranges and markets. **Exclusion applies to alcohol producers or retailers failing to meet the following criteria:**

1/ Transparency about how the company ensures responsible marketing practices in high risk markets (i.e. countries with limited regulation, low-end product ranges, etc.)

2/ Detailed risk mappings and social risk management plans.

Cannabis

Cannabis contain a variety of different compounds, namely cannabidiol (CBD) and tetra-hydro-cannabinol (THC). CBD is not psychoactive but is used as a medicinal ingredient. THC is a psychoactive substance with various legal standings, depending on the country or state.

Consumer goods: Companies producing and marketing cannabis-based foods, beverages, and cosmetics have limited risks associated with the use of their products because they generally only contain CBD (no psychoactive component). However, there is still very little knowledge around the true positive and negative effects of these products over the long term, and no regulation marketing.

At the moment, industry self-regulation is the predominant means of monitoring cannabis use in consumer goods. We focus on companies' marketing policies and practices on a case-by-case basis in order to assess their risk management profile, especially in countries where regulation around cannabis in consumer goods is scarce.



Pharmaceutical cannabis-based products: health authorities have issued stringent regulation regarding the medical applications of pharmaceutical cannabis-based products. Use is limited to certain specific health conditions, full medical trials are required; these medicines must be approved, licensed, and prescribed.

The sustainability assessment of cannabis-based pharmaceutical companies follows the same principles as the broader pharmaceutical industry; cannabis-based pharmaceuticals will not be considered controversial products.

Recreational cannabis-based products: in jurisdictions where permissible by law, companies can sell THC-containing cannabis products for recreational use. At present, the World Health Organisation discourages the protracted use of cannabis due to reported acute and chronic health effects, and reports that substance abuse is recurrent among young consumers.

All companies exclusively involved in producing and retailing recreational cannabis are excluded from our investments.

Sugar-Sweetened Beverages

Sugar-sweetened beverages create significant, negative impacts on human health, especially because of their connection with obesity and type 2 diabetes. The World Health Organisation recommends that the consumption of added sugars be limited to 5-10% of daily energy intake. However, actual sugar consumption is substantially higher (and rising) in many countries. Sugar-sweetened beverages are a major contributor to excess sugar consumption, contributing as much as 50% of the sugar in our daily diets. Furthermore, as calories in liquid form are not registered by the digestive system in the same manner as calories in solid form, those that consume sugary beverages tend to take in more calories than those who don't.

To minimise the public health impacts of sugar consumption, regulators have started implementing taxes on highly-sweetened products and beverages to reduce consumption of these products. However, we have yet to see stronger restrictions (e.g. banning the sale of these products to consumers under a certain age) as for the sale of alcohol and tobacco. Companies have responded by working to decrease the sugar in their products, in part by developing alternatives sweetened with low-calorie sweeteners. Since studies have not yet been conclusive on whether low-calorie sweeteners are healthier than the sugars they replace, we consider them equivalent to sugar as a precaution.

Companies that sell products with added sugar in solid form are not necessarily excluded, but are instead subject to a case-by-case analysis, including 1) a strategy to decrease the sugar, salt, and fat in their products with time-bounded targets, 2) a transparent and third-party verified measurement of their products' nutritional profile, 3) responsible marketing practices that promote a healthy lifestyle and limit marketing of sugary products to children, and 4) transparent nutrition labels.

Exclusion applies to companies with >10% sales derived from sugar sweetened beverages.



Gambling

Gambling companies' business creates substantial social risks, namely addiction and over-indebtedness. We do not consider any company exposed to gambling as having sufficient policies to properly address the social risks linked to their activities.

Exclusion applies to companies with >10% sales derived from gambling.

Fundamental Rights

Weapons

In our view, weapons can play a role in both war and peace; they are not excluded on principle. But, although weapons can contribute to peacekeeping, they must not be used capriciously or against civilians.

For this reason, based on international conventions, companies that produce controversial weapons, cluster munitions, or anti-personnel mines are systematically excluded. For other types of weapons, we consider that today, no company in the industry can guarantee that their products will not be exported or re-exported to high-risk, undemocratic countries, where they may be used against civilians.

Exclusion applies to companies with:

- **>0% sales derived from weapons¹**
- **>0% sales of weapons banned by international conventions and other controversial weapons.**

Adult Entertainment

Companies involved in producing and retailing adult entertainment are exposed to high social risk, especially related to human trafficking. We have not identified any companies involved in this industry within our investment universe. Nevertheless, we consider that no company in the sector has developed sufficient policies to properly address its social risks.

Exclusion applies to companies with >10% sales derived from adult entertainment.

Other Topics

For **abortion, contraception, embryonic stem cells and animal testing**, Mirova's ESG analysis focuses on key risks linked to each company's products

¹ Weapons are defined as products, or key basic components of these products, that have been developed for military purposes and designed to injure/kill. These also include tailor-made components are components that are developed primarily in order to be integrated into a weapon system.



and processes. As a result, we have set high minimum standards for companies associated with these activities in order for them to be eligible in our investments.

Governance and International Conventions

Tax Havens

When companies pay taxes, the private sector is essentially contributing to the social development of a country. Through this mechanism, companies can participate in governmental budgets for social development and contribute to the public good.

However, there are still some jurisdictions that facilitate tax fraud and avoidance, reducing companies' positive social contribution through tax payments. We also carefully consider to what extent companies participate in tax optimization. Since information on tax payments and jurisdictions is often inaccessible and we seek to analyse strategies on a case-by-case basis, tax optimization represents a major topic within our engagements.

Exclusion applies to companies registered, incorporated or headquartered in a tax haven. This exclusion is based on the blacklist of tax havens as defined and maintained by the European Commission.

UN Global Compact's principles and/or OECD guidelines

Beyond involvement in controversial activities, companies in serious breach of *UN Global Compact's principles and/or OECD guidelines* for international companies are also excluded on the grounds of problematic practices around human rights, labour rights, environment, business ethics and corruption issues.

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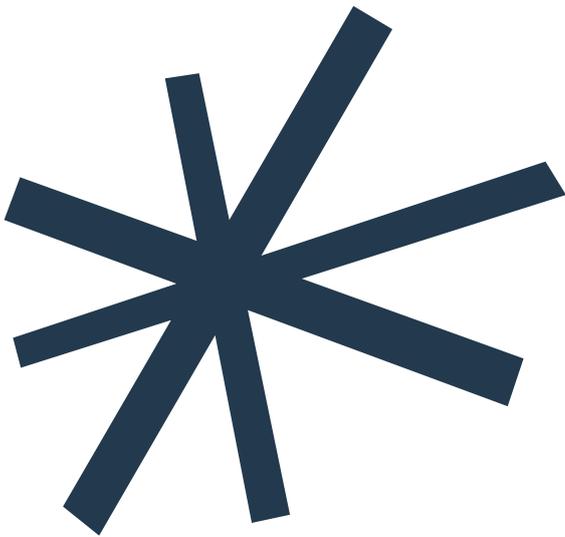
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Mirova

French Public Limited liability company with board of Directors
Regulated by AMF under n°GP 02-014
RCS Paris n°394 648 216
Registered Office: 59, Avenue Pierre Mendes France – 75013 – Paris
Mirova is an affiliate of Natixis Investment Managers.

Natixis Investment Managers

French Public Limited liability company
RCS Paris n°453 952 681
Registered Office: 43, Avenue Pierre Mendes France – 75013 – Paris
Natixis Investment Managers is a subsidiary of Natixis.

Natixis Investment Managers International

French Public Limited liability company
Regulated by AMF under n° GP 90-009
RCS Paris n°329 450 738
Registered Office: 43, Avenue Pierre Mendes France – 75013 – Paris

Natixis Investment Managers International is an affiliate of Natixis Investment Managers.

Mirova US

Mirova U.S., LLC
888 Boylston Street, Boston, MA 02199; Tel: 212-632-2803
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