

Understanding the markets

Shareholder value and a preference for short-term prospects couldn't take the heat this summer

Investing Voltalia turns to the market to finance development

Engaging in dialogues Gender equality: Mirova creates an investor coalition

Measuring Impact of our investments

Photo credit: Steffen Olsen / Danish Meteorological Institute



Shareholder value and a preference for short-term prospects couldn't take the heat this summer

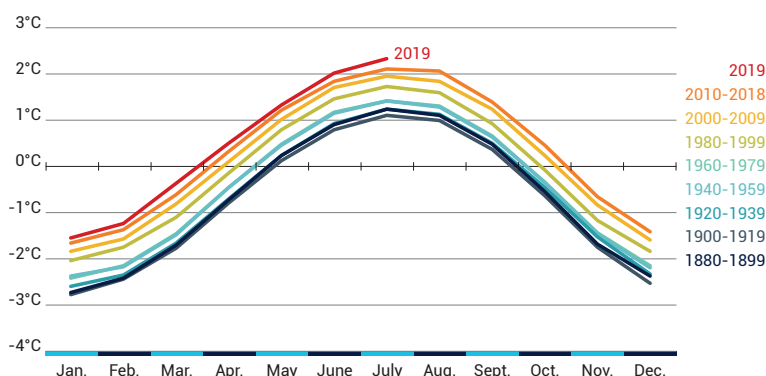
A high pressure summer!

Over the summer, we saw things heat up in more than one way: In July, a heatwave swept across Europe setting all-time high temperature records and the markets caught their fair share of

heat as well. As a result of rising temperatures, the polar ice pack is melting at an alarming rate and natural disasters, such as wild fires and floods, are becoming more frequent and more extreme. But

the market isn't paying attention. How do we include a systemic risk in a valuation model using future flows? What's truly terrifying is that, with the exception of the sectors which are the most directly exposed—for example, producers of electricity and reinsurers—this major economic risk which will affect investments, may not be taken into account until it's too late. The fact that the green and sustainable finance agenda will be subject to regulation, shouldn't come as a surprise. In fact, we should be delighted. By publishing the [EU taxonomy for sustainable activities](#), the European Commission has taken a decisive step forward in its plan to create standards and labels for 'green' financial products. We're willing to bet that investors will find a tool for putting a price on carbon, whether its emissions or avoided emissions.

GRAPH 1 – GLOBAL AVERAGE TEMPERATURE ANOMALY AGAINST 1880-2019, PER MONTH

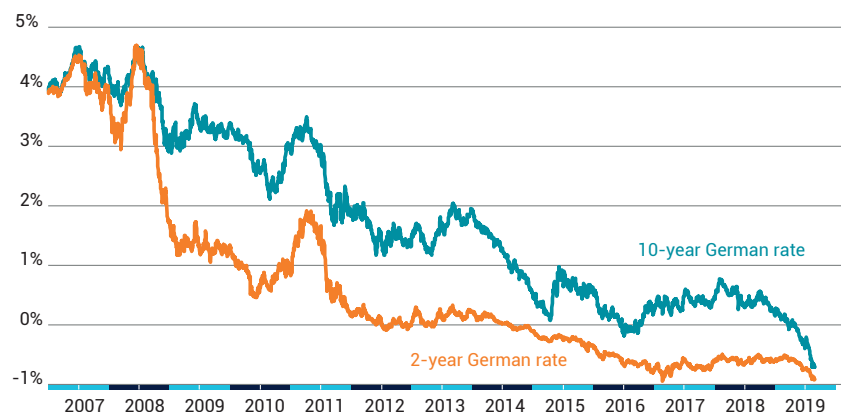


Sources: Mirova, NASA

Do negative rates represent an opportunity for the ecological transition?

It's become a familiar refrain: the markets are in turmoil. Markets failed to buck the trend this summer, especially bond markets, which saw rates drop dramatically around the world. Many European nations are now facing negative rates. We don't believe that this is solely because the economic climate has deteriorated everywhere, particularly in Germany, which is expected to enter a recession. Like Japan, we believe that the ECB is responding to structural phenomena. Continued low growth, flagging populations, high

GRAPH 2 – GERMAN 2 & 10-YEAR RATES



Sources: Mirova, Eurostat

levels of public debt, structurally low inflation: what if negative or near-zero real interest rates are not the best weapon to make the debt burden bearable while supporting the economy by promoting public and private investment? This

situation will have many consequences –and we'll have the opportunity to revisit these consequences in future publications. One such consequence might be promoting the investments which are necessary for an ecological

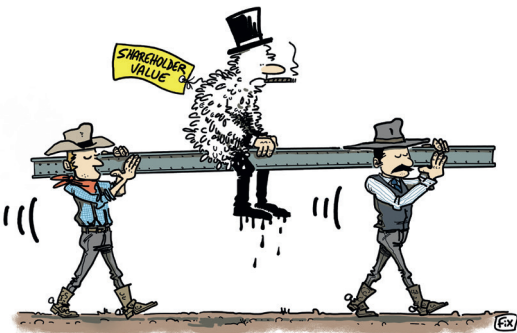
transition. Germany seems interested in taking this path: it could benefit both the climate and Germany's economy.

American CEOs sign shareholder value primacy's death warrant Will the old limited vision of fiduciary duty survive?

On August 19, the [Business Roundtable](#), a gathering of American chief executives, issued a statement redefining the purpose of corporations and ending shareholder primacy. Opportunism? Cynicism? A publicity stunt meant to appease

the public and to stave off any more painful regulations? A real change of heart? No doubt, a little of everything inspired the statement. And, doubtlessly the 188 CEOs who signed the statement probably had different motivations. But make no mistake: it's a major event. In the midst of the summer slump, some of the most important CEOs in the world's leading economy have just rejected the mindset which has guided the markets since the 70s and 80s, all with the swipe of a pen. In France, this view has recently become law –we won't continue to repeat history. In the U.S., businessmen are countering the federal administration. This

shift away from shareholder value as a company's *raison d'être*, represents the real cultural revolution which is underway in the France and the U.S. Will the effects of these measures be felt in time to overcome the obstacles which undermine capitalism and threaten the intra and intergenerational social pact (increasing inequality and the environmental crisis)? Rather than waiting for a response, all financial intermediaries must immediately renounce a limited vision of fiduciary duty where only short-term financial return is taken into account and environmental and social externalities are ignored.



Market breakdown

Political uncertainty

The trade war between the U.S. and China, the currency war, Brexit, Italy, Hong Kong... The political environment is weighing down the business climate and exacerbating the slowdown in global growth. The U.S.'s introduction of new tariffs on \$300 billion of Chinese imports in the beginning of August only reignited tensions between the two major powers and resulted in the return of risk aversion. This increase in tariffs is all the more surprising because it will directly penalize consumers and further complicate value chains

for American businesses. The self-proclaimed "extremely stable genius" who is the U.S. president has magnanimously given his fellow citizens an early Christmas present by delaying tariffs on China. For their part, the Chinese authorities warned that they would take retaliatory measures and wasted no time opening fire: the Chinese yuan's midpoint has risen above the 7 yuan per dollar mark for the first time since 2008. With an eye on the upcoming U.S. presidential elections, Trump seems to be walking a fine line

between maintaining pressure and not losing face while avoiding very serious consequences for the American economy.

Meanwhile in Europe, the ties that bind the European Union together seem to be weakening. In the U.K., Boris Johnson has rejected Theresa May's withdrawal agreement with Europe and has promised that the country will leave the European Union "at any cost" on October 31, with or without a deal. This has fed fears of a hard Brexit in the near future. In Italy, Matteo Salvini has broken up the coalition government

.

and called for new elections. If he loses his short-term bet, political instability could persist: Will the fear of elections be strong enough to hold the alliance between the Democratic Party (PD) and the Five Star Movement (M5S) together? This political instability is accompanied by a worrying rise in geopolitical risks: In addition to the latent war between Iran and Saudi Arabia, tensions between two nuclear powers, Pakistan and



India, have risen sharply. Further east, young people in Hong Kong are challenging China's "socialist

democracy" and North Korea has resumed its missile tests...

Industries versus Services

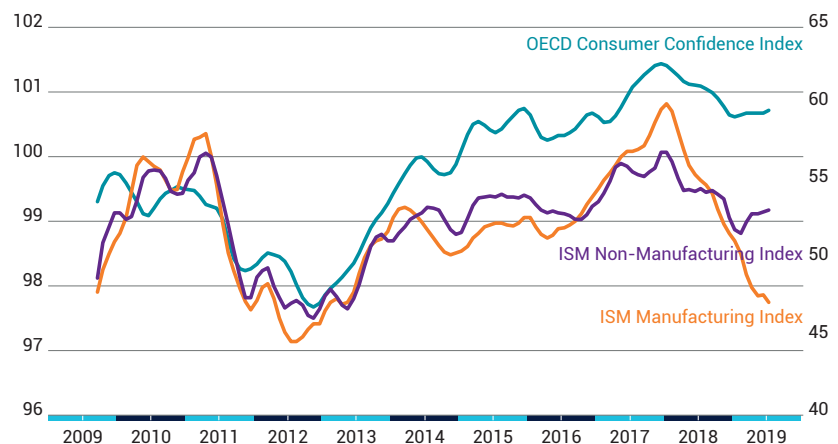
More than half of all industrialized countries are experiencing a contraction in manufacturing activity (the global manufacturing PMI was below 50 at the beginning of August, for the third consecutive month) in line with the global trade slowdown. Manufacturing sectors are bearing the brunt of the blow as trade disputes around the world intensify: the business climate is deteriorating and investment spending is suffering. Nevertheless, household consumption and services have proven relatively resilient so far. This allows global growth to remain around 3%: below its "potential" but at a sufficient level for businesses to continue to hire, keeping unemployment rates relatively low.

However, this balance strikes us as being a delicate one: so long as the manufacturing cycle does

not recover, there is little hope of an economic recovery. With economic growth decoupled from greenhouse gas emissions, only massive investment in the

ecological transition will set us back on the path towards sustainable growth. Given the current climate, monetary and fiscal stimuli are necessary.

GRAPH 3 – PMI MANUFACTURING AND SERVICES –RIGHT– VS EURO ZONE CONSUMER CONFIDENCE –LEFT– (3-MONTH AVERAGE)



Source: Mirova

Monetary and fiscal policies

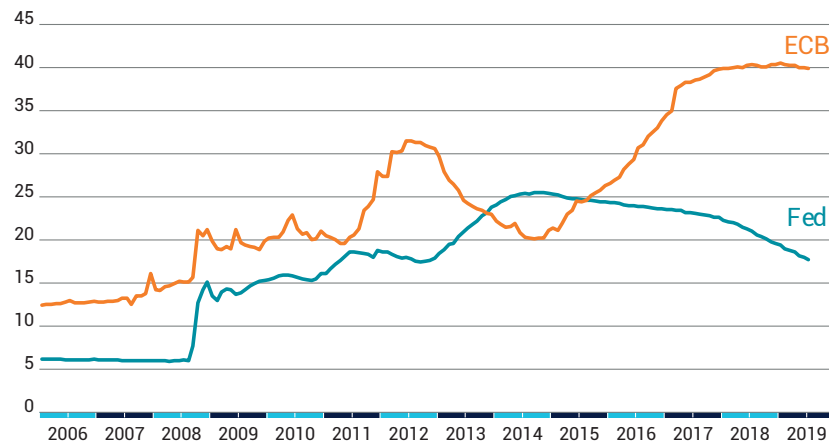
Some states are implementing or preparing to implement fiscal stimulus plans. For example, China has implemented a plan which is equivalent to 0.7% of China's GDP for this year. Germany, for its part, has said that it would be open to a financial stimulus plan of around €50 billion geared towards the ecological transition.

Central banks, on the other hand, are acting to avoid tightening their policies in order to sustain the phase of economic expansion

we've been experiencing since 2009. This means maintaining extremely low interest rates which benefits businesses, households, and nations. Following an initial rate drop in July, the Fed (the U.S. Federal Reserve) has been monitoring trade tension developments and is expected to take the necessary action to sustain growth and inflation. Investors now expect to see four interest rate cuts by the end of 2020, including two in 2019. Similarly, the ECB

may lower rates in September and launch a new quantitative easing program (purchasing government and company assets). It might also consider a differentiated deposit rate regime to limit the adverse effects of negative rates on banks. Central banks' balance sheets will therefore begin expanding once again after the 2018 attempt at stabilization. This attempt to wean the economy and the markets from their monetary pain meds fizzled out.

GRAPH 4 – CENTRAL BANK BALANCE SHEETS AS A % OF GDP



Source: Mirova

Equity valuations and rates

The sharp drop in long-term interest rates since the beginning of the year is largely due to the decline in the world manufacturing PMI and to more accommodative central bank policies against a backdrop of declining inflation expectations. These conditions

are expected to persist and rates are likely to remain low. The credit market continues to benefit from the lack of yield on government debt.

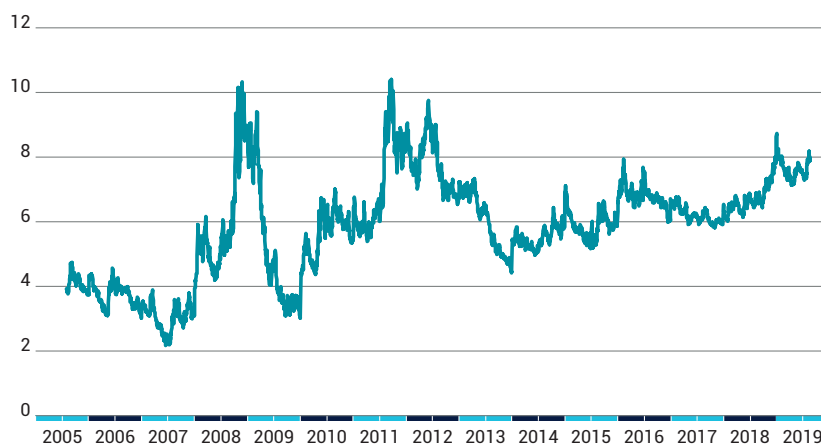
A return to risk aversion in the face of still-disappointing macro momentum and cyclical fears

linked to the resurgence of trade tensions may partially justify the acceleration of the decline in August. However, the acceleration is also partly due to technical factors and a lack of liquidity.

With the market anticipating further growth in corporate earnings and dividends this year and next, the fall in long-term rates has automatically led to an increase in the equity risk premium, which appears attractive relative to bonds considering their history. Moreover, drops in rates such as this one have often led to a strong stock rebound. This has been particularly true in recent years such as 2012 and 2016.

In short, either political instability and current geopolitical tensions end up crystallizing to create a shock strong enough to cause a recession, or a precarious balance prevails making this a good time to invest in stocks.

GRAPH 5 – EUROZONE RISK PREMIUM
(EARNINGS YIELD – 10-YEAR GERMAN BOND)



Source: Mirova

FOCUS

Does Germany have a plan B?

A drop in world trade would not necessarily spare the German economy which is largely based on exports. However, our neighbor across the Rhine has the means to counteract such a scenario with a recovery plan which may be palatable to the German public because it also concerns the environmental transition which is viewed favorably in Germany.

Sick or sane?

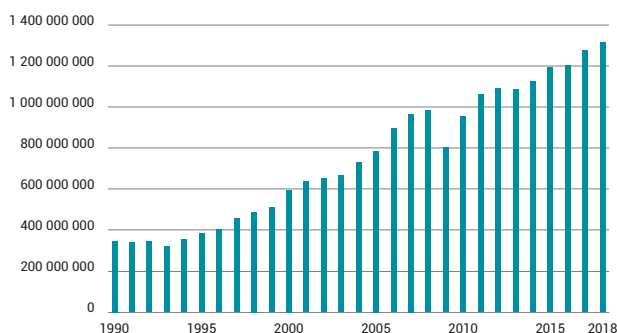
In the late 1990s, Germany held the unfortunate title of the new "Sick man of Europe." The Rhine model seemed far too rigid and incapable of keeping pace with the "new economy." Neither its industrialists with their heavy production structure, nor German society which –unions included– was sometimes considered conservative seemed to know how to adapt. When the dot-com bubble burst in the early 2000s, the real potential of the "new economy" was brought into perspective and as the pendulum swung the other way, Germany suddenly appeared very wise for having taken the road less traveled. The introduction of the Hartz reforms and the Euro's fixed exchange rate system have made

Germany more competitive as the global economy has expanded, particularly in China, the U.S., and in Mediterranean EMU member states. Germany's export machine is beginning to experience a boom and Germany is now recording trade surpluses never seen before (see Graph 6) thanks in part to the automotive industry. In short, Germany has set itself up to benefit greatly from globalization and now it is doing so. The only downside is, Germany is also becoming very dependent on globalization. As the subprime crisis in 2008 illustrated: a country's reliance on global activity can cause a rapid recession (see Graph 7), which is historically interrupted just in time



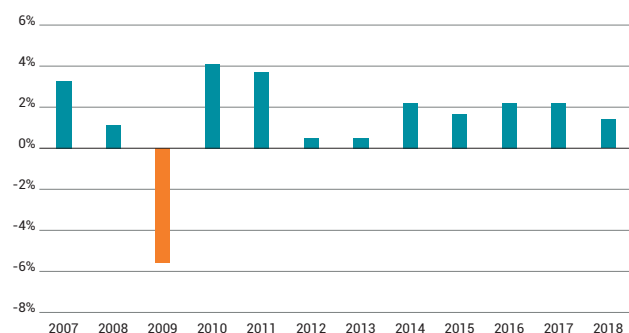
by the central banks. The sudden deglobalization in 2009 did not have time to weaken Germany, but the warning was clear.

GRAPH 6 – GERMAN TRADE SURPLUS



Sources: Mirova, Federal Statistical Office, Wiesbaden 2019

GRAPH 7 – REAL GROWTH RATE



Sources: Mirova, ESTAT

So what's happening today, now that globalization seems to be hitting certain limits? What alternative strategy will replace Germany's export model, if international trade declines? The bulk of Germany's activities and

production, even its social and political organization depends more or less directly on its exports. Germany's declining population (see Graph 8) means that we can't count on compensation from the internal market, especially because

that market is suffering after the last two Chancellors tightened social amortization mechanisms. Clearly, if globalization were to subside, Germany might not have a plan B.

Could the problem solve itself?

However, the markets continue to view Germany as a safe haven and bund¹ rates recently skimmed -0.7% (see Graph 9): Is Germany hurting from the globalization slowdown? Buy bunds!

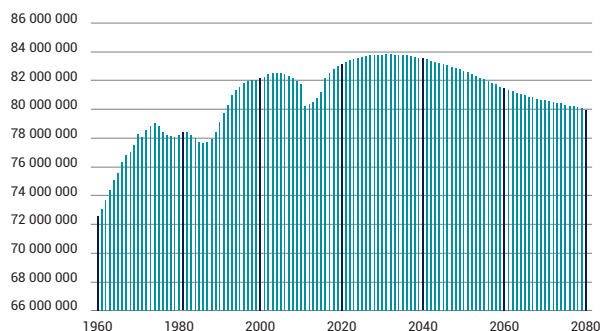
This apparent contradiction can actually be explained quite easily. Berlin learned a lesson from 2008 and began reducing and then eliminating its deficits. Even if Germany's trade surpluses were to disappear, its budget surpluses would tide it over for a while. What's more, although Germany's population growth may be lethargic depressing consumption and growth, it also reduces the likelihood of social crises. Germany may be an example of how this

decline could absorb some of the repercussions of possible deglobalization... and how the problem might solve itself.

The difficulties that Germany is facing are proof that mercantilism, even if involuntary, cannot constitute the final policy of a nation, even if it can be an effective tool in certain cases—incidentally like in China's case. Keynes, Allais, and even more liberal thinkers, have denounced the pitfalls of export-based strategies, because of the risks associated with strategies based only on exports and the imbalances they introduce. German society and industry seem to be able to cope with any potential globalization slowdown,

which would inevitably affect them, without too much trouble, but country also has something else up its sleeve. Something that the country probably isn't using as much as it should today: infrastructure investments. Germany has managed the globalization phase better than its peers: Will it be able to navigate this new transitional phase, and especially the environmental transition? It's certainly given itself the means to do it. And it may well have the will to do it. Between charging networks for electric vehicles, renovating transportation and housing infrastructure, and altering the energy mix being produced... there's no shortage of ideas.

GRAPH 8 – GERMAN POPULATION



Sources: Mirova, Eurostat

GRAPH 9 – GERMAN 10-YEARS BOND RATES (%)



Source: Mirova

¹ German government bonds

Voltalia turns to the market to finance development



June 2019: Voltalia turns to the market to finance new growth ambitions. Transaction amount: €376m, or an 80% increase in market capitalization that will allow Voltalia to increase its installed capacity from 1 GW to 2.6 GW by 2023 and pursue its ambition to develop clean and accessible energy around the world. Mirova has decided to support the company in its long-term plan.

Established in 2005, [Voltalia](#) specializes in renewable energy, a growing sector driven by several underlying trends. These trends include growing global energy needs, particularly in emerging countries; the need to reduce greenhouse gas emissions in order to combat climate change; the need to reduce reliance on fossil fuels. All of these factors have played a role in developing sources of renewable energy, but above all, because these sources are among the most inexpensive sources of energy production, it is their competitiveness which is driving growth in the sector. Present in more than 18 countries, over the last few years Voltalia has become an international player in the renewable energy market, producing renewable energy from solar, wind, hydro and biomass energy sources. Voltalia produces electricity and provides services ranging from development, to site operation and maintenance, at both its own power plants and those of its clients. Voltalia also mainly focuses on non-subsidized markets, where renewable electricity is produced at a competitive price.

Voltalia has given itself a mission that goes beyond a purely economic rationale: to participate in improving the global environment while promoting development at the local level. Today, accessing energy remains a major challenge [for more than a billion people worldwide](#). This inequality creates obstacles for development, leaving local populations deprived of access to healthcare and education.

What's more, the development of projects in Africa such as the Râ Solar solar power plant in Egypt (32 MW) will not only increase access to reliable electricity, it will also be a step towards meeting the renewable energy capacity targets laid out by the [Paris Agreement](#) in 2015. In Kenya, the Kopere solar power plant (50 MW) is expected to increase the country's electricity supply significantly. Currently, only 64% of Kenya has electricity².

It is this double economic and social mission that makes Voltalia a major player in the new and more sustainable economy that Mirova seeks to finance. Voltalia's goals align with Mirova's objective of combining financial performance with a positive environmental and social impact.

² Source: World Bank, 2017

Standard Chartered: First sustainability bond issued focused on emerging markets



Standard Chartered began issuing its first ever sustainability bond in June 2019. This bond is oriented towards developing countries, in line with the bank's philosophy. Our analysis of the bond and the issuer resulted in a positive opinion and we have decided to participate in this project. This project will be the first that Mirova has participated in with Standard Chartered.

In June 2019, [Standard Chartered](#) issued its first sustainability bond for €500 million with a 0.90% coupon and a maturity date of July 2, 2027. It's aimed at financing projects in emerging countries in accordance with the Sustainable Development Goals set out by the United Nations

Standard Chartered's history makes it particularly well suited to this transaction: created from a merger of two overseas British banks in 1853, Standard Chartered has put down roots in many international markets, including Asia, Africa, and the Middle East. Today, the bank operates in more than 60 countries and 60% of its net banking income of \$15 billion comes from Asia³. Standard Chartered's model consists of combining a local approach through its retail and commercial banks with a global approach through its private and investment banking activities. Today, Standard is one of the best capitalized banks in the UK.

Unsurprisingly, Standard has chosen to dedicate its first sustainability bond to developing countries, including Africa and Asia. These are countries which

are particularly vulnerable to sustainable development obstacles such as fighting climate change and making banking systems accessible to the most precarious populations, and which are struggling to raise enough capital to address these problems. Although 90% of financing needs to achieve the SDGs by 2030 are being met in developed countries, only 60% of these needs are being met in developing countries and only 10% in Africa⁴. These numbers show that the mobilizing large amounts of capital has never been as important. The emission will be used to finance wind, solar panels, rail infrastructure, and water treatment projects, as well as microfinance projects which will support jobs and growth in developing countries.

The bank launched its [Sustainability Bond Framework](#), under which it developed its first sustainability bond, on the same day. It aims to direct capital towards achieving the sustainable development goals through the issuance of green, social, and sustainable bonds, whether through public transactions or private placements.

³ Source: Standard Chartered, 2018 results

⁴ Source: Standard Chartered, 2019

Legislative developments regarding green and sustainable finance

The summer was filled with news about the regulation of green and sustainable finance. At European level, the Technical Expert Group (TEG), which was created to support the European Commission as it implements the recommendations in its Action Plan, published their work. In particular, this work has led to important advances in establishing a green business taxonomy and developing a European eco-label for investment products.



TEG report on a taxonomy for environmentally-sustainable economic activities

The highly anticipated cornerstone of the Commission's action plan, the taxonomy project lists activities that contribute to reducing and adapting to climate change. There is not yet any consensus on what the future European taxonomy may –or will– be used for. While some countries, such as France and Sweden, are pushing to make

taxonomy a minimum requirement, other states are trying to limit its scope.

Since 2017, Mirova has supported and promoted the principle of a European taxonomy. Today we are continuing our dialogue with regulators on this subject, so that the taxonomy will be adapted to the level of information financial

players can provide. Finally, and most importantly, we believe that it is essential that all transparency obligations related to the taxonomy apply to all financial parties, not only those already in green finance. The taxonomy is still under discussion. The final report is expected to be published in December.



[Read the CEO of Mirova, Philippe Zaouati's comments](#)

Plan to create a European Eco-label for green investment products

The European Commission is working to adapt the European Eco-label which is currently used for consumer products to financial products. In the first semester of 2019, a first draft of the specifications was the subject of stakeholder consultations and meetings as well as technical tests, which Mirova contributed

to. This Eco-label project seeks to benefit from the experience of the various national labels which exist in Europe, such as the [French Greenfin label](#)⁵. It should also build on the future European taxonomy. While Mirova actively supports the Commission's approach, there is still a long way to go before the label, which has been

announced for 2020, is finalized. The Eco-label will have to meet the double challenge of being both ambitious enough to prevent any risk of greenwashing, but also functional if it is to be widely used with investment products.

In addition to these two major projects, the European Commission is actively working to roll out its sustainable finance action plan. The TEG has published an interim report on indices, climate and ESG⁶ which Manuel Coeslier, a portfolio manager at Mirova, contributed to, as well as a [report outlining a voluntary Green Bond Standard](#). Other measures are being introduced: [guidelines for companies on how to report climate-related information](#) and the banking reform package (integrating ESG risks into supervisory reports, banks' transparency obligations, and prudential treatment).

⁵ Created by the Ministry for the Ecological and Inclusive Transition, The Greenfin label guarantees the green quality of investment funds and is aimed at financial players who serve the common good through transparent and sustainable practices.

⁶ Environmental, Social and Governance

FOCUS

Gender equality: Mirova creates an investor coalition



The G7 summit was held in Biarritz from August 24 to August 26. Out of the French President's main priorities for working towards a fairer capitalism, continued efforts to reduce inequalities, especially between women and men, have seen considerable progress. The G7 countries have pledged to implement new laws to promote equality between women and men through the "Biarritz Partnership". Similarly, Mirova, supported by [UN Women](#) has formed an investor coalition to put pressure on companies to make progress regarding gender equality.

Despite this problem having been identified years ago, the percentage of women in the private sector has only marginally increased. On average, women make up one third of the workforce in large listed companies worldwide, less than 5% of executive directors and 15% of executive boards⁷.

In the investment world, this subject was barely integrated into management decisions until recently. Convinced of the importance of combating inequality, Mirova has chosen to strengthen the weight of gender issues in its analyses, in its investment choices, and in its process for monitoring impact

measures. To widen the scope of its approach, Mirova has also focused on two main areas: an innovative partnership with the [UN Women French National Committee](#) and an engagement approach dedicated to this topic.

We led the charge to draft an investor statement to raise company awareness of the importance of diversity practices. This letter will be sent to more than 1,000 large companies who will be asked to sign the UN⁸ Women Empowerment Principles and to strengthen their communication to investors regarding gender equality⁹.

⁷ Source: Mirova, 2018, from data from the MSCI World

⁸ The Women Empowerment Principles (WEP) are the fruit of an alliance between UN Women and UN Global Compact. They consist of 7 principles that companies can follow to promote gender equality in their work environment. They provide companies with guidance to help them to act in favor of equality.

⁹ Investors are invited to sign this statement through September 20 – [Contact](#)

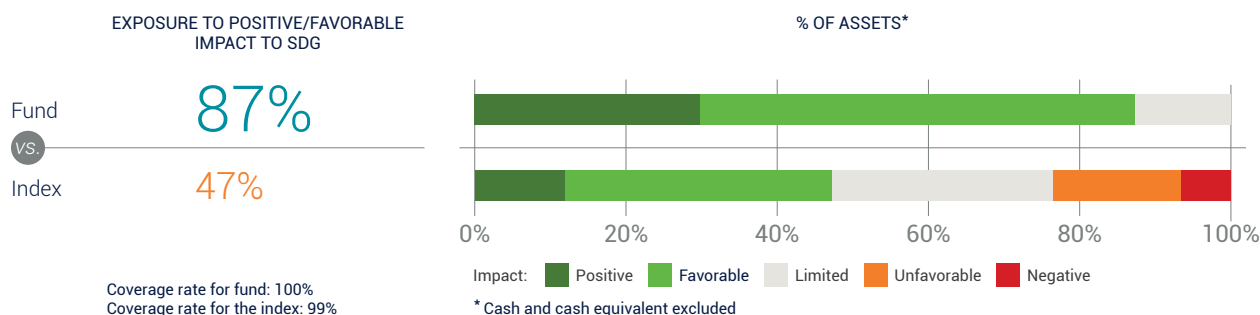
Measuring

Mirova Consolidated Equity

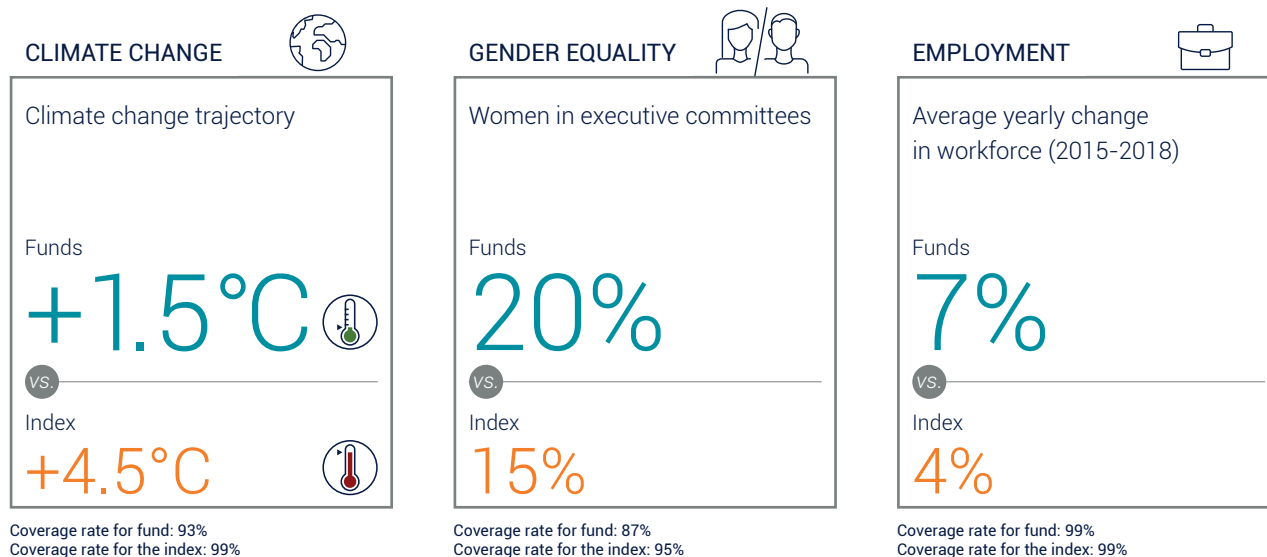
31/08/2019 – Index: MSCI Europe

Data refer to equity funds managed by Mirova and Mirova US mentioned below*

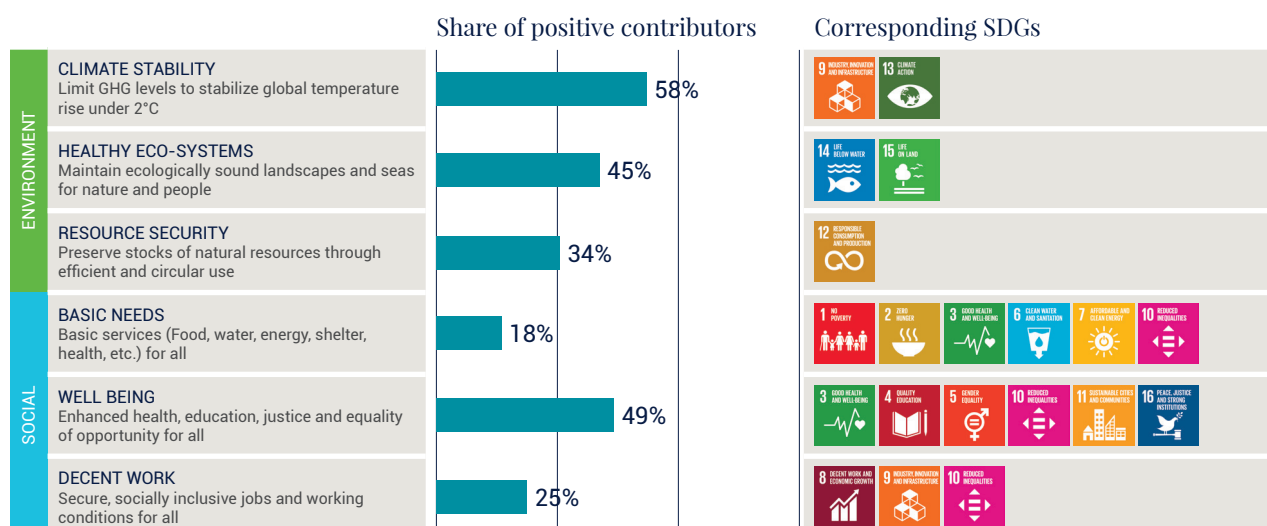
Impact on the achievement of the SUSTAINABLE DEVELOPMENT GOALS (SDGs)



Key impact indicators



Impact mapping to the SDGs



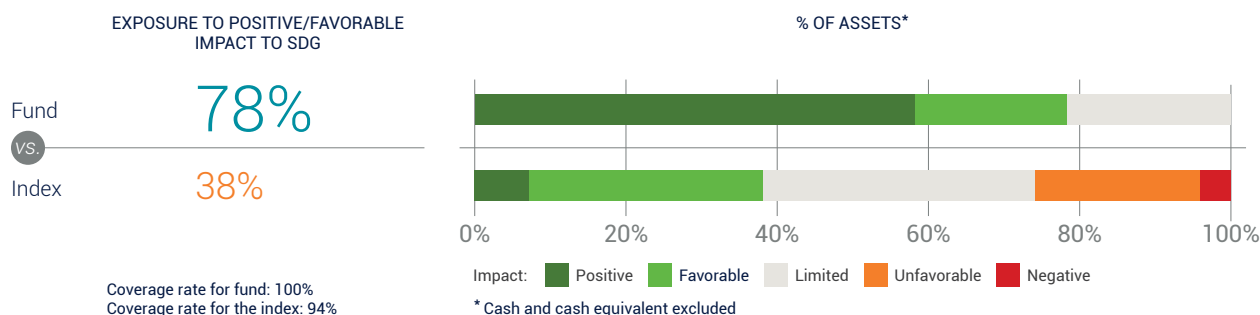
*Insertion Emplois Dynamique, Mirova Europe Sustainable Equity Fund, Mirova Europe Environmental Equity Fund, Mirova Euro Sustainable Equity Fund, Impact Es Actions Europe Mirova Global Sustainable Equity Fund, Mirova International Sustainable Equity, MIROVA WOMEN LEADERS EQUITY FUND, Aviva La Fabrique Impact ISR. Dedicated funds and buckets managed by Mirova and Mirova US cannot be disclosed for confidentiality reasons.

Mirova Consolidated Fixed Income

31/08/2019 – Index: Barclays Euro Aggregate Corporate

This information relates to all the fixed income funds managed by Mirova

Impact on the achievement of the SUSTAINABLE DEVELOPMENT GOALS (SDGs)



Key impact Indicators

CLIMATE CHANGE



Climate change trajectory

Funds

+1.5°C

vs.

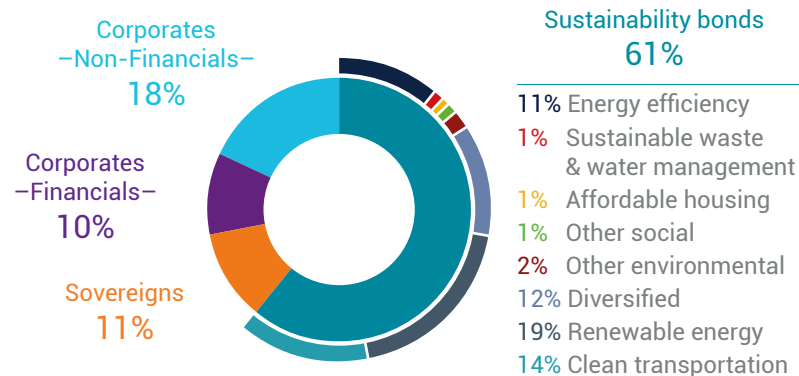
Index

+4.7°C

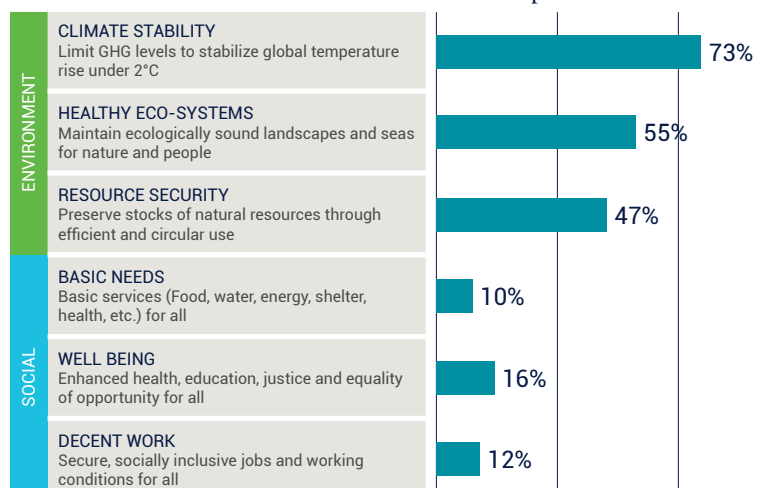
Coverage rate for fund: 71%

Coverage rate for the index: 50%

SUSTAINABILITY BONDS



Impact mapping to the SDGs



Corresponding SDGs



September 2019
Finalized August 29, 2019

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