J. SAFRA SARASIN
Sustainable Swiss Private Banking since 1841

Sustainable Investment Spotlight

Sustainable Investment Research, Bank J. Safra Sarasin
March 2017

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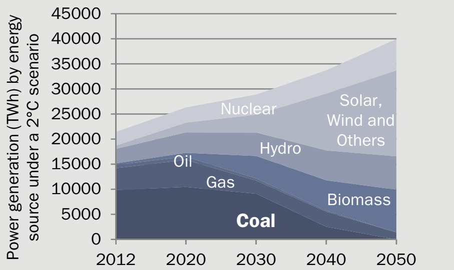
Chart 1: Phase-out of coal in the world power mix under a 2°C scenario



Source: CarbonTracker, Bank J. Safra Sarasin, 2017

2°C scenario

The 2°C warming scenario is a global climate change mitigation plan to limit the world's temperature increase to 2 degrees Celsius compared to pre-industrials levels. It was originally proposed in the 1990s to avert the worst impacts of climate change. The 195 parties to the United Nations Framework Convention on Climate Change in December 2015 agreed on nationally determined contributions (NDCs) to achieve this global goal ("Paris Agreement").

Keep it cool – how to invest in a 2° world.

- **The current global climate commitments and related actions imply that coal should disappear from the world energy mix by 2050. Consequently, Bank J. Safra Sarasin recently added coal to its divestment policy for all sustainable investment strategies.**
- **This commitment is part of a more comprehensive investment approach and the application of a diverse investment toolset encompassing Best-in-Class & Integration and Active Ownership to address climate investment risks.**
- **Beyond risk considerations, our climate approach allows investors to benefit from climate opportunities and fuel the transition towards a low carbon economy.**

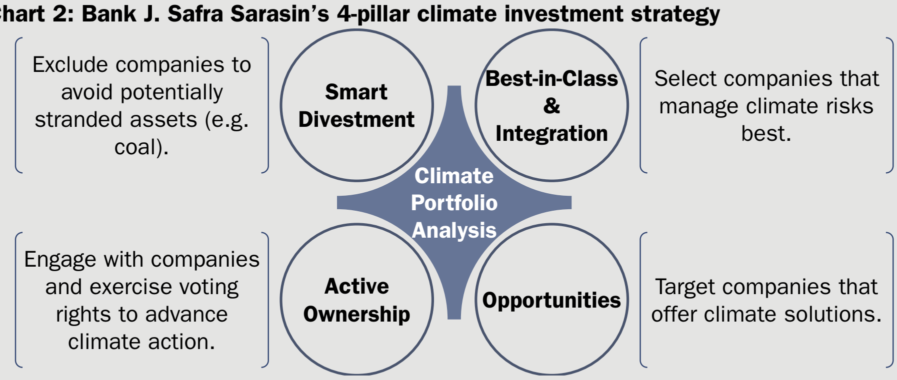
The recipe to keep it cool

As a sustainable investor, we are committed to addressing climate change. To fulfil this pledge, we have developed a comprehensive strategy based on 4 pillars: 1) **Smart Divestment**: selectively excluding companies, 2) **Best-in-Class & Integration**: in-depth investment analysis with a Best-in-Class focus 3) **Active Ownership**: engagement and voting activities, and 4) **Opportunities**: related to climate solutions. Comprehensive climate portfolio analysis further helps to make decisions and enhance resilience with regards to climate change considerations.

Our approach has matured over time, first questioning whether "fossil fuels meant fossilised returns" (Sustainable Investment Focus, October 2014) and further investigating the "investment risks and rewards from climate change" (Sustainable Investment Spotlight, January 2016).

On the back of global climate actions and momentum, we concluded that a formal divestment angle was needed to complete our integrated climate strategy (see chart 2).

Chart 2: Bank J. Safra Sarasin's 4-pillar climate investment strategy

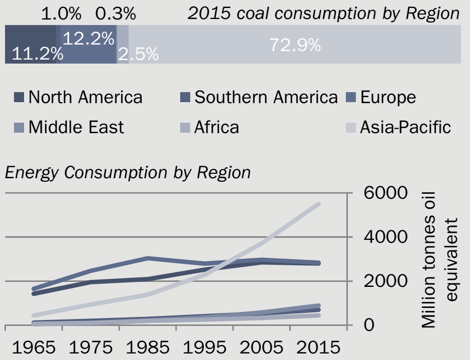


Source: Bank J. Safra Sarasin, 2017

Coal: a black evil?

Coal is currently an unavoidable source of energy (see chart 1) with the Asia-Pacific region simultaneously being the major coal consumer and driving most of the world energy demand growth (see chart 3).

Chart 3: The Asia-Pacific region is driving coal and energy consumption.



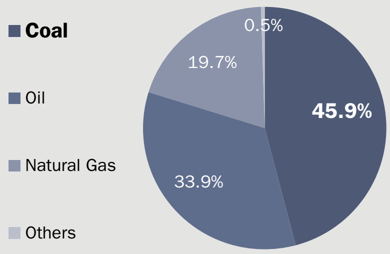
Source: BP Energy Outlook, Bank J. Safra Sarasin, 2017

Given its carbon-intensive nature, it therefore comes as no surprise that coal is also a major contributor to CO2 emissions from fuel combustion (see chart 4), which represent the bulk of global CO2 emissions – other minority categories being industrial processes and agriculture.

More precisely, both thermal coal used in electricity generation and metallurgical coal used in the production of steel contribute to coal's carbon footprint – and also important toxic emissions such as NOx and SOx. The major difference between these two types of coal relates to scale and the existence of alternatives.

Global thermal coal production is indeed six times higher than metallurgical coal production. At the same time, a convincing alternative to metallurgical coal is yet to be discovered, unlike thermal coal which is part of a broader portfolio of available renewable and non-renewable energy sources. Thermal coal thus creates a bigger challenge to the environment, but can be addressed through a variety of alternatives.

Chart 4: Current share of coal in global C02 emissions from fuel combustion



Source: IEA, Bank J. Safra Sarasin, 2017

Consequently, (thermal) coal is a key target of climate action which has gained and sustained a strong momentum following the 2015 Paris Agreement – a global agreement to mitigate climate change and keep global temperature increase below 2°C. The trend is indeed visible at all levels, from governments to the private sector through to civil society. The government of Canada for example, plans to abandon coal as a source of energy by 2030, while Ireland recently voted to be the world's first country to fully divest public money from fossil fuels. Various investor efforts likewise impact the future of coal and coal companies.

Investor initiatives for coal divestment

Over 200 organisations worldwide have pledged to divest from coal, including the Norwegian Pension Fund (NPF), often used as a role model and reference institution for other pension funds like Allianz, AXA or Publica. This trend has been accelerating since early 2016.

For example, the NPF introduced a coal exclusion rule in early 2016: power and mining companies with a coal exposure superior or equal to 30% may be excluded. However, the screening process takes into account the use of renewable energies and strategies to reduce coal exposure. Companies that cross the threshold but have ambitious mitigation strategies can thus be "put on observation" and not be excluded. The NPF has so far excluded 59 companies and placed 11 under observation.

Likewise, Publica – one of Switzerland's largest pension schemes – divested its equity holdings in coal companies in February 2016. Publica's analysis is based on the carbon sensitivity of energy and mining companies and the financial risks posed by public policy measures to combat climate change.

Reactions from civil society, embodied in initiatives such as the *keep it in the ground* campaign – champion the idea of ceasing future exploitation of fossil fuels – add to the global scale and scope of climate action.

In a 2°C scenario, this simply implies a phase-out of coal from the world energy mix by 2050 (see chart 1).

Smart divestment: Coal now one pillar of our climate investing strategy

Embracing this global trend, we have decided to introduce stricter standards when it comes to coal. Our approach, based on companies' exposure to coal and their mitigation strategies, led us to formalise the exclusion of a number of firms from our investable universe.

As a starting point, we screen our universe and identify companies with a significant share of revenues and/or activity related to coal. We have defined an ambitious threshold of 20% considering coal's current share in the global energy mix and its trajectory in a 2°C scenario. In sectors such as mining, we consider companies' sales exposure to coal, while the generation mix provides the best insight for utilities. Such companies indeed do not sell coal per se but use it as an input in electricity production. They may also extract coal from the ground and sell it internally.

The second step of our divestment process is a qualitative review of companies crossing the threshold. We analyse the importance of coal within a company's overall activity (a company may own a coal plant but it could represent only a small fraction of revenues), their exposure to renewable energies and, most importantly, their strategies to combat climate change.

In the power generation sector, we particularly look at efforts to phase out coal plants or dispose of assets. Where possible, we analyse whether investment plans are focused on alternative energies rather than fossil fuels. We also take into consideration the optimisation of the existing coal fleet, though this is rarely decisive, as full carbon capture does not seem to be a viable option with existing technologies. For example, we identified a European power generator with significant coal exposure – with 57% of generated power derived from coal in 2015 – which we did not exclude from our universe. Indeed, the company has launched an ambitious plan to convert 75% of its generation capacity to biomass by 2020. The strategy is already paying off with 70% of H1 2016 power generation stemming from biomass.

Overall, our process led to the exclusion of 107 companies, of which 80% are power generators and 14% are mining companies. These companies have an average exposure to coal of 50% and their carbon intensity – computed as the ratio of annual emissions to market capitalisation – is 3.4t on average, which is six times higher than their peers in the energy and utilities sector.

Best-in-Class selection & integration

Beyond divestment, companies are compared on their ability to reduce their negative climate impact within their peer group. This approach is known as Best-in-Class. More precisely, the objective is to select companies with a superior management of climate-related issues. For example, we rank Industrials and Materials companies on their carbon intensity and mitigation efforts. In other sectors, we focus on the environmental footprint of products or on risks deriving from financing environmentally sensitive projects. The integration of relevant climate change data points into traditional financial analysis complements the Best-in-Class selection approach. This forms the second pillar of our climate strategy.

Active Ownership: Discussing climate challenges with companies and other stakeholders

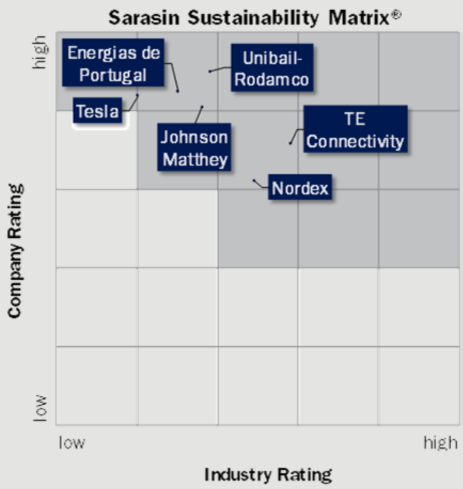
We actively engage with companies to foster their efforts in aligning with a 2°C world in pillar 3. We see engagement as a dialogue between investors and companies with the dual objective of impacting how companies operate and enhancing shareholder returns. Overall, around 25% of our direct company dialogues related partially or solely to climate change topics in 2016. In addition, Bank J. Safra Sarasin contributed to different collaborative and public policy engagement initiatives, which were often coordinated by the United Nations (UN) -supported Principles for Responsible Investment (PRI) initiative. Among others, Bank J. Safra Sarasin participated in the PRI-led engagement on carbon footprint disclosure and signed a global investor letter to the G20 on climate change.

Opportunities: Always look at the bright side of life

Beyond the risk perspective, we perceive and actively look for opportunities in companies that provide solutions to climate challenges; this is pillar 4 of our climate strategy. Specifically, such companies should have answers to issues caused by climate change and/or help this trend to happen more smoothly in general. Here again, we use dedicated criteria to identify companies with the best positioning in opportunities connected to such climate solutions. Relevant data points relate, for example, to opportunities in clean technologies, renewable energy or green buildings.

In chart 5, a selection of companies with significant exposure to energy-transition products and services is displayed in the Sarasin Sustainability Matrix® .

Chart 5: Selection of companies with significant exposure to climate solutions



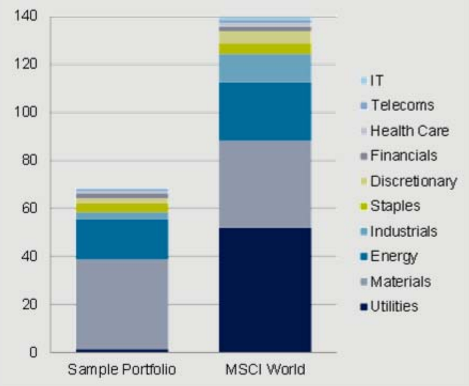
Source: Bank J. Safra Sarasin, 2017

This topic of the transition to a low carbon economy is also at the heart of a dedicated Bank J. Safra Sarasin investment strategy that focuses on companies with significant exposure to renewable energy technology, energy efficiency, clean power generation, bridge energy and climate investing.

Climate Portfolio Risk Analysis: Monitor climate resilience of our investments

The 4-pillar climate investment strategy is complemented by an in-depth climate portfolio analysis. By conducting such analysis, we make carbon risks tangible to our clients and are able to tackle them differently. If, for example, we deem the risk of potentially stranded assets too high, this might lead to a divestment action (pillar 1). It might also be the case that the analysis shows the portfolio is not sufficiently geared towards climate solution opportunities, which would trigger the potential addition of more exposed companies (pillar 4).

Chart 6: Portfolio carbon footprint – our investments vs the benchmark



Source: MSCI, Bank J. Safra Sarasin, 2017

Typically, our investment strategies have lower climate-related risks and have a smaller carbon footprint than their relevant benchmarks (see chart 6).

Welcome to the low carbon economy

As the evidence strongly suggests (see chart 1), coal is on a structural decline. Companies therefore need to adapt, while investors can encourage them and benefit from a more sustainable development.

By embracing the transition towards a low carbon economy through mitigation and adaption efforts, exposed companies will depart from coal and align with a 2°C scenario to secure their future.

Likewise, by analysing companies' strategies, engaging with them and divesting smartly, investors can send a strong message to companies and encourage the transformation of the coal industry while avoiding the highest climate-related investment risks.

Furthermore, by targeting climate solutions, investors can also benefit from strong opportunities both in the area of emissions mitigation and alternative energies.

With an integrated climate investment strategy, Bank J. Safra Sarasin is thus well positioned to accompany its clients on a successful journey towards a low carbon future.

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The environmental, social and governance (ESG) analysis of companies is based on a proprietary assessment methodology developed by the Sustainable Investment Research Department of BJSS. All ratings are conducted by in-house sustainability analysts. The sustainability rating incorporates two dimensions which are combined in the Sarasin Sustainability-Matrix® :

- Sector Rating: Comparative assessment of industries based upon their impacts on environment and society.
- Company Rating: Comparative assessment of companies within their industry based upon their performance to manage their environmental, social and governance risks and opportunities.

Investment Universe: Only companies with a sufficiently high Company Rating (shaded area) qualify for Bank J. Safra Sarasin sustainability funds.

Key issues

When doing a sustainability rating, the analysts in the Sustainable Investment Research Department assess how well companies manage their main stakeholders’ expectations (e.g. employees, suppliers, customers) and how well they manage related general and industry-specific environmental, social and governance risks and opportunities. The company’s management quality with respect to ESG risks and opportunities is compared with its industry peers.

Controversial activities (exclusions)

Certain business activities which are not deemed to be compatible with sustainable development (e.g. armaments, nuclear power, tobacco, pornography) can lead to the exclusion of companies from the Bank J. Safra Sarasin sustainable investment universe.

Data sources

The Sustainable Investment Research Department uses a variety of data sources which are publicly available (e.g. company reports, press, internet search) and data/information provided by service providers which are collecting financial, environmental, social, governance and reputational risk data on behalf of the Sustainable Investment Research Department.

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