Hazardous chemicals – or the new carbon

Chemicals are everywhere...
Chemicals are increasingly present in everyday consumer products: from plastics and clothes to flame retardants in mattresses and couches, through to food and shampoos. This universal trend is even stronger in developing countries (see chart 1) where regulation is generally less advanced, thus adding to the challenge of improving global chemical safety.

…and their consequences are now well understood...
Over the last twenty years, the scientific community has built up a substantial body of evidence demonstrating the adverse health consequences and negative environmental impact of some chemical components such as phthalates and perfluorinated compounds (PFCs). According to a study commissioned by the United Nations Environmental Program (UNEP - Global Chemicals Outlook - 2013), industrial and agricultural chemicals are indeed among the top five leading causes of death globally. Regulation has evolved in response, and some controversial chemicals have been banned by various national bodies.

…with action needed at all levels
In the face of growing public awareness and concern, reflected in initiatives such as the Detox Outdoor Campaign and supported by specialised NGOs like ChemSec, the European Union took a key step in 2007 and launched a vast initiative, called REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals). It targets over 10,000 chemicals to date, 300 of which could potentially be banned in the coming years.

Chart 1: Evolution of global chemical production from 1970 to 2020

The REACH process has come a long way since 2007 and has inspired many ongoing regulatory evolutions around the world (see chart 2). Similarly to the carbon issue in recent years, momentum around chemical safety is growing and material implications for companies are becoming clearer.

Such regulatory developments indeed have a direct business impact, in addition to potential operational constraints linked to the handling of hazardous chemicals. Not just for chemicals companies manufacturing the targeted components – known as Substanc-
es of Very High Concern or SVHCs – but also for a wide range of consumer goods and industrial companies whose products contain SVHCs.

**Chart 2: Chemical safety regulations around the world**

In 2011, for example, SIGG USA – the company that sells the Swiss-made aluminium drinking bottles in the US – failed to disclose Bisphenol A content in its products and over 300,000 bottles were returned by customers. Consequently, the US distributor lost millions of dollars in decreased sales and eventually filed for Chapter 11 Bankruptcy protection.

Similarly, in 2013, the ILVA steel plant – Europe’s largest steel plant, located in Italy – was put under court administration and magistrates ordered assets worth € 8.1 billion to be seized from the holding company Riva Fire on suspicion of criminal association to commit environmental offences. The investigation found that hazardous chemical emissions from ILVA were linked to abnormally high rates of cancer in the plant’s surrounding region.

Therefore companies need to take action. This starts with assessing the hazard of chemicals they use and ultimately finding sustainable alternatives, which requires extensive investigation. Indeed, inappropriate replacements can have a cost impact of $5-$10 million for just one substance (among hundreds or even thousands in certain businesses) according to estimates from the technology company HP, which uses chemicals in its printing products and batteries.

**REACH**

REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) is a regulation issued by the European Union adopted in 2007. It aims at protecting human health and the environment from the chemical-related risks while enhancing the competitiveness of the EU chemicals industry. It also promotes alternative methods for the hazard assessment of substances in order to reduce the number of tests on animals. REACH applies to EU manufacturers or importers of chemical substances – ingredients, finished products or mixtures – who must collect information on the properties and uses of substances they manufacture or import, while assessing related hazards.

The European Chemical Agency (ECHA) and the Member States then evaluate the information submitted by companies to decide whether the substances are of Very High Concern – therefore entering the Candidate List – or not. From there, these substances can either be restricted or put under an authorisation procedure with the objective of properly controlling and progressively replacing them by suitable alternatives while ensuring effective functioning of the EU internal market.

Restrictions may limit or ban the manufacture, marketing or use of a substance, while authorisation can be granted for specific use. Such substances cannot be placed on the market or used outside of potentially authorised specific uses after a given (sunset) date.

**The REACH-Process**

To date, around 100 chemicals are already restricted and more than 70 feature on the authorisation list. 2018 is an important year and the deadline for companies to register their chemical substances (35,000+ to date). First decisions from ECHA are due in 2019 and the entire review will be completed by 2020.
Implications for investors

Professionalised carbon-tracking and reporting allows investors to evaluate companies’ efforts to tackle climate change and fulfil their fiduciary duty. When it comes to chemicals, however, assessing financial risks or investing in progressive leaders is far from easy, despite the growing need for a clear understanding of companies’ chemical footprint.

Chemical safety appears on the investment radar as it becomes a material risk for companies, but information and methods to assess companies’ preparedness are only just emerging. Besides, adopting a risk perspective provides merely a partial view on the evolution it implies.

Phasing out hazardous chemicals from everyday products indeed calls for alternatives which might not exist today. Research efforts and a change of mindset are required to find suitable solutions. The challenge is to substitute the idea of acceptable hazard with actual chemicals and products thought to be safe from inception.

Furthermore, chemicals have the potential to contribute to addressing environmental challenges from pollution control (water treatment, soil decontamination, emissions abatement) to energy management (biofuels, power storage, solar equipment), thus opening a new field of opportunities.

The smart way to go

At Bank J. Safra Sarasin, the assessment of chemical safety exposure and management is integral to a company’s assessment. As a result, we avoid companies carrying major business and operational risks, as well as those with negative impacts on human health and the environment. On the other hand, companies fostering change and providing alternatives to SVHCs or developing relevant chemicals to address environmental challenges are likely to benefit from strong business opportunities and are identified along the investment process.

As highlighted on chart 3, the process starts with the identification of mid- and long-term opportunities and risks at industry level, thus defining the scope of key issues to be analysed. Companies in the sector are then assessed and ranked against this custom framework. Best players become eligible for inclusion in the sustainable investment universe and are further reviewed for their potential fit with the investment strategy. In this phase, direct contact and investigation of specific topics such as chemical safety is key, and strengthened by leveraging the expertise of specialised organisations such as the Chemical Footprint Project.

We complemented our analysis with targeted engagement with 50 companies on this topic. Our objective was to get a better understanding of companies’ chemical footprint, and identify and implement alternatives. We realised that companies’ maturity and willingness to communicate on this topic is extremely diverse, with only a few having estimated their revenue at risk and launching convincing programmes to identify substitutes. Besides, almost none had approached the issue from an opportunity angle, as regulation is most often understood as a risk before new business perspectives become clearer.

While informing our analysis, this also gave us the opportunity to emphasise the importance of chemical safety for investors. Combined with the effort of other stakeholders, this fosters action at company level, therefore paving the way towards a safer offering of products containing chemicals.
Launched in 2015, the Chemical Footprint Project (CFP) fosters and measures corporate progress towards safer chemicals, helping business leaders to move ahead of regulations and to avoid chemicals of high concern to human health or the environment in their products and supply chains. To the benefit of investors, the CFP offers the opportunity to engage with corporates and raise awareness, transparency and good practices around the highly material topic of chemical safety. It further helps to close the gap in sustainability data with a broad perspective encompassing the environmental (pollution, spills, and product stewardship) and social (worker health and safety, and consumer exposures) dimensions along the value chain. The Chemical Footprint Project is therefore a great tool to help companies and investors embrace the change and create sustainable value.

Bank J. Safra Sarasin is a signatory of the Chemical Footprint Project.

As a result, exposed companies in our sustainable investment universe – the basis universe from which all our investments originate – display a superior mitigation of related risks than their peers (see chart 4).

Furthermore, and through our dedicated research focused on sustainability opportunities, we are able to identify companies offering relevant (chemical) products thought to be a safe alternative to existing hazardous substances or – beyond safety concerns – that provide solutions to address environmental challenges. Examples of such products include wastewater treatment chemicals notably used in industrial or mining contexts, lightweight materials such as carbon fibre for the transportation industry or solar panel components, as well as battery materials used in electric vehicles.

By crossing this approach with a global analysis encompassing relevant Environmental, Social and Governance (ESG) aspects, we are then able to identify companies that are best positioned to benefit from such opportunities while efficiently managing their stakeholder relationships and mitigating their environmental impact, thus ensuring the sustainability of their business.

As a sustainable investor, we therefore actively contribute to the evolution of the chemical industry from a source of potential concern towards a solutions generator in the face of global challenges. Consequently, our clients benefit from innovative investment ideas with strong development potential tied to global sustainability trends.
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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 sustainable investment 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.

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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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